2015-16

Training on Embedded system

Introduction:

An embedded system is a microprocessor-based computer hardware system with software that is designed to perform a dedicated function, either as an independent system or as a part of a large system. At the core is an integrated circuit designed to carry out computation for real-time operations. Complexities range from a single microcontroller to a suite of processors with connected peripherals and networks, from no user interface to complex graphical user interfaces. The complexity of an embedded system varies significantly depending on the task for which it is designed. Embedded system applications range from digital watches and microwaves to hybrid vehicles and avionics. As much as 98 percent of all microprocessors manufactured are used in embedded systems. Embedded systems are managed by microcontrollers or digital signal processors (DSP), application-specific integrated circuits (ASIC), field-programmable gate arrays (FPGA), and gate arrays. These processing systems are integrated with components dedicated to handling electric and/or mechanical interfacing. Embedded systems programming instructions, referred to as firmware, are stored in read-only memory or flash memory chips, running with limited computer hardware resources. Embedded systems connect with the outside world through peripherals, linking input and output devices. The industry for embedded systems is expected to continue growing rapidly, driven by the continued development of Artificial Intelligence (AI), Virtual Reality (VR) and Augmented Reality (AR), machine learning, deep learning, and the Internet of Things (IoT). The cognitive embedded system will be at the heart of such trends as: reduced energy consumption, improved security for embedded devices, cloud connectivity and mesh networking, deep learning applications, and visualization tools with real time data.

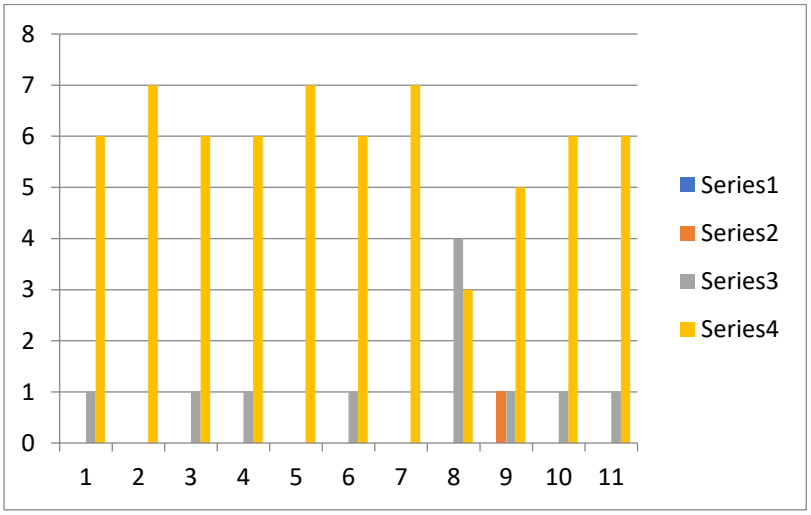
Objectives: After attending the training, students should be able to understand:

1. The basic working of a microcontroller system and its programming in assembly language.
2. To integrate hardware and software for microcontroller applications systems.
3. The internal architecture and interfacing of different peripheral devices with Microcontrollers.
4. To write the programs for microcontroller.
5. The role of embedded systems in industry.
6. The design concept of embedded systems.

Program Details:

Training Program: Embedded system
Date: 6/7/2015 to 16/7/2015
Students who can attend: B. Tech (ECE) 6^{h} Sem-2016 PO.

Feedback Analysis



Report of Feedback Analysis 2nd Phase of Winter Training

Feedback for training was taken on 16th July, 2015 with the 3rd year students (2016 PO). Analysis of feedback are listed below:

1. Training was good.
2. Rooms need to be more updated with proper charging facilities for Laptop.
3. Breaks in regular interval should also be provided.
4. There are too many students so too much noise and chaos in class.
5. Projector was not working properly.
6. Training session should be more.

Training on Embedded system
List of Students

Sl.no	Roll No	Name	Enrolled	Participated
1	11900311052	RAHUL PAUL	Y	Y
2	11900312001	ABHISHEK KUMAR	Y	Y
3	11900312002	AMALENDU PAUL	Y	Y
4	11900312003	AMAN SHAW	Y	Y
5	11900312005	ANANDA SHANKAR BAGCHI	Y	Y
6	11900312006	ANKUR SINHA	Y	Y
7	11900312007	ANTARA BANERJEE	Y	Y
8	11900312008	ARNAB GHOSH	Y	Y
9	11900312010	ATINDRA NATH RAI	Y	Y
10	11900312011	AVINASH KUMAR	Y	Y
11	11900312012	AVIRUP BASU	Y	Y
12	11900312013	AWADH KISHORE	Y	Y
13	11900312015	BHUBAN NATH	Y	Y
14	11900312016	BIBEK RAUTH	Y	Y
15	11900312019	CHANDRASHEKHAR KUMAR	Y	Y
16	11900312020	CHITRANJAN KUMAR	Y	Y
17	11900312021	DEBAJYOTI SARKAR	Y	Y
18	11900312022	DEEPU KUMAR	Y	Y
19	11900312023	DIBYO GHOSH CHOWDHURY	Y	Y
20	11900312024	DIPANJAN KARMAKAR	Y	Y
21	11900312025	DRAVID KUMAR	Y	Y
22	11900312027	JAYA BISWAS	Y	Y
23	11900312029	JOYDEEP MAJI	Y	Y
24	11900312030	KANHAIYA AGARWAL	Y	Y
25	11900312031	KHALIDA TABASSUM	Y	Y
26	11900312032	KRISHNA KUMAR JHA	Y	Y
27	11900312033	KRISHNPRIYA SINHA	Y	Y
28	11900312036	MILAN MAHADANI	Y	Y
29	11900312037	MOUSUMA ROY	Y	Y
30	11900312038	NEHA PANKAJ	Y	Y
31	11900312039	NISHAT TARIK	Y	Y
32	11900312040	NIVEDITA MISHRA	Y	Y
33	11900312041	PALLAVI ARYA	Y	Y
34	11900312042	PIYUSH BENIA	Y	Y
35	11900312043	PRABHAT KUMAR	Y	Y
36	11900312044	PREETI PRIYANKA	Y	Y
37	11900312046	PRITAM SINGHA ROY	Y	Y
38	11900312047	PRIYA DEB ROY	Y	Y
39	11900312048	PROMIT ROY	Y	Y
40	11900312049	RABINDRA NATH RAI	Y	Y
41	11900312050	RAHUL BOSE	Y	Y
42	11900312051	RAHUL KHAN	Y	Y

Training on Embedded system
List of Students

Sl.no	Roll No	Name	Enrolled	Participated
43	11900312052	RAHUL KUMAR SINGH	Y	Y
44	11900312053	RAVI SHANKAR	Y	Y
45	11900312054	RIMA DAS	Y	Y
46	11900312055	RITIKA SAHA	Y	Y
47	11900312056	ROSHAN KUMAR GUPTA	Y	Y
48	11900312057	SANDIPAN BANERJEE	Y	Y
49	11900312058	SARBARTHA DAS	Y	Y
50	11900312059	SATYAM SAURABH	Y	Y
51	11900312060	SHASHANK SAURABH	Y	Y
52	11900312062	SHIRSHENDU MODAK	Y	Y
53	11900312063	SHOURYADEEP SANYAL	Y	Y
54	11900312064	SHREYA CHANDRA	Y	Y
55	11900312065	SHUBHASHISH MUKHERJEE	Y	Y
56	11900312067	SMITHODHY RUDRA	Y	Y
57	11900312068	SMRITIKANA ROY	Y	Y
58	11900312070	SOMNATH DEB	Y	Y
59	11900312071	SONU KUMAR	Y	Y
60	11900312072	SOUBHIK PAL	Y	Y
61	11900312073	SOUMI GHOSH	Y	Y
62	11900312074	SOURAV KUMAR	Y	Y
63	11900312075	SRAMANA TALUKDAR	Y	Y
64	11900312077	SUBHADIP MUKHERJEE	Y	Y
65	11900312078	SUDESHNA CHATTERJEE	Y	Y
66	11900312079	SUDESHNA DEY	Y	Y
67	11900312080	SULAGNA PRAMANICK	Y	Y
68	11900312081	SUMAN DHAR	Y	Y
69	11900312082	SUNANDO DEBNATH	Y	Y
70	11900312083	SUNIRMAL PAUL	Y	Y
71	11900312084	SURAJIT SAHA	Y	Y
72	11900312086	SUSHIL KHATI	Y	Y
73	11900312087	SUSHOVAN ROY CHOWDHURY	Y	Y
74	11900312088	TRINALEENA KUNDU	Y	Y
75	11900312089	TRINANKUR CHAKRABORTY	Y	Y
76	11900312090	VASUNDHARA	Y	Y
77	11900312092	VISHANT PRASAD SHARMA	Y	Y
78	11900312093	WATAN AGARWAL	Y	Y
79	11900313067	ALOKE SAHA	Y	Y
80	11900313068	BIJOY RAJ BIKRAM SHARMA	Y	Y
81	11900313069	CHANDAN GHOSH	Y	Y
82	11900313070	DHIMAN MITRA	Y	Y
83	11900313071	GOPA BARMAN	Y	Y
84	11900313072	KAZI MD SAIDUR RAHAMAN	Y	Y

Training on Embedded system
List of Students

Sl.no	Roll No	Name	Enrolled	Participated
85	11900313073	MRINMAY DAS	Y	Y
86	11900313074	PRATIK DHAR	Y	Y
87	11900313075	RAJARSHI DAS	Y	Y
88	11900313076	RAMAN PRADHAN	Y	Y
89	11900313077	SOUMYASREE SARKAR	Y	Y
90	11900313078	SUCHANDA ROY	Y	Y
91	11900313079	TINKU SARKAR	Y	Y

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Brief report on 3 days' Workshop on "Introduction to MATLAB Programming" during 01.09.2016-03.09.2016

MATLAB is a high-performance language for technical computing and it is basically used for modeling, simulation and analysis of different dynamical systems. This workshop is intended to familiarization with different basic functions and programming concept of MATLAB in electrical engineering applications. The outcome of this this workshop is to demonstrate about different tolls associated with the MATLAB software and to develop different algorithms for solving various electrical engineering problems.

The program details are as below:

Title of workshop: Introduction to MATLAB Programming

Resource Person: Mr. Subhrajyoti Sarkar, Assistant Professor, Techno-India, Batangar

Duration: 01.09.16-03.09.16

Time: 9 am -5 pm

Venue: Departmental Seminar Hall & Departmental Lab

The interactive seminar was divided in two parts.

- At the beginning program starts with an introductory speech and a brief history of MATLAB software and related field of Engineering
- In the first day 1st half a brief introduction with MATLAB software, IF-ELSE commands, SWITCH case, formation of different loops (FOR & WHILE) has been discussed
- In the 2nd half concept of MATRICES and DETERMINANTS, introduction to STRING etc. was covered
- In the same day some practical classes comprising of declaring of different functions, loading and saving files in MATLAB, writing basic MATLAB commands etc was conducted
- In the later period some basic applications of electrical circuit analysis using MATLAB i.e. solving typical electric circuit problems by different network theorems like Theremins theorem, Norton's theorem, Maximum power transfer theorem was analyzed in MATLAB/SIMULINK environment.
- In the same day some aspects of different signals and their response like step response, ramp response, impulse response and a computation method for the determination of different control system specifications was carried out.
- In the last day some complex electrical engineering problems i.e. determination of different performance characteristics of DC machines, Induction machines by modeling and simulation was carried out
- In the last session some fruitful interactive discussions was held and a healthy response was received from students end

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

- At the end of interactive session some assignments was given to the students related to the content of workshop.

In the concluding part, Mr. Sarkar thanked all the students for their patience hearing and gave his contact no. and email id in case any students have any query.

The program continued with 40 students from 3rd EE from Electrical Engineering Department.

H.O.D

Department of Electrical Engineering

Coordinator

T & P Sub-Committee

SILIGURI INSTITUTE OF TECHNOLOGY

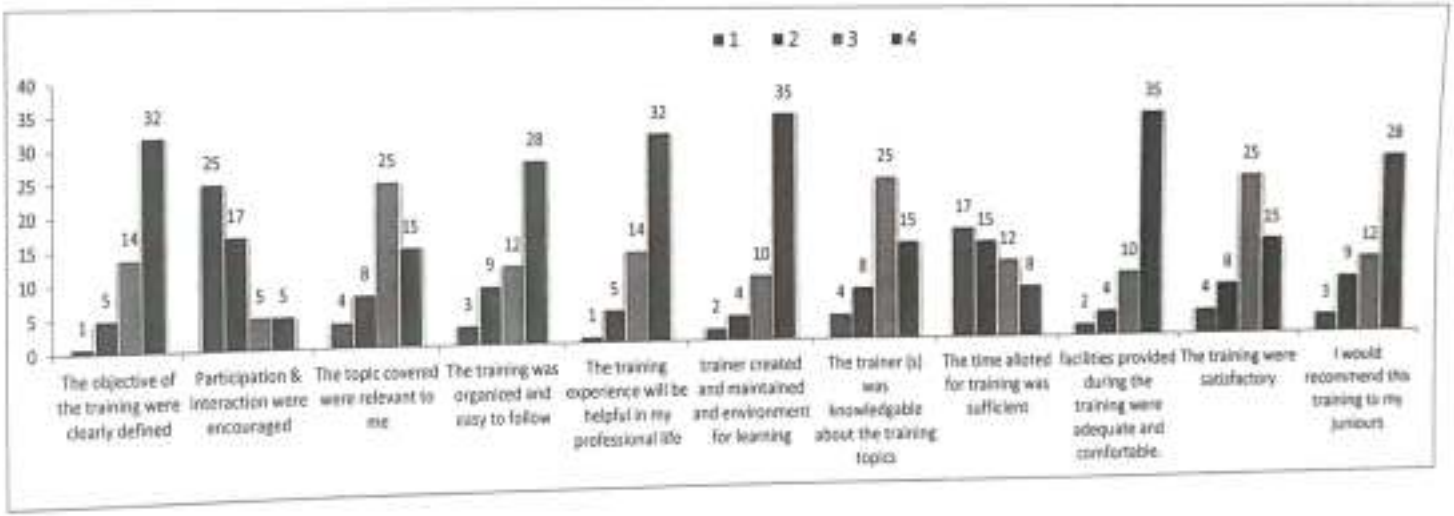
DEPARTMENT OF ELECTRICAL ENGINEERING

Feedback analysis of Workshop on MATLAB

Duration: 01/09/2016-09/09/2016

Training Organized by: The Department of Electrical Engineering, S.I.T

	Name of the trainer: Mr. Subrajoyti Sarkar, Assistant Professor, Techno India , Batanagar	Ratings(1 being lower & 4 being highest rating)				Total No. of Respondents : 52			
Sl.no	Feedback elements	1	2	3	4	% of rating 1	% of rating 2	% of rating 3	% of rating 4
1	The objective of the training were clearly defined	1	5	14	32	1.92	9.62	26.92	61.54
2	Participation & interaction were encouraged	25	17	5	5	48.08	32.69	9.62	9.62
3	The topic covered were relevant to me	4	8	25	15	7.69	15.38	48.08	28.85
4	The training was organized and easy to follow	3	9	12	28	5.77	17.31	23.08	53.85
5	The training experience will be helpful in my professional life	1	5	14	32	1.92	9.62	26.92	61.54
6	trainer created and maintained and environment for learning	2	4	10	35	3.85	7.69	19.23	67.31
7	The trainer (s) was knowledgable about the training topics	4	8	25	15	7.69	15.38	48.08	28.85
8	The time alloted for training was sufficient	17	15	12	8	32.69	28.85	23.08	15.38
9	facilities provided during the training were adequate and comfortable.	2	4	10	35	3.85	7.69	19.23	67.31
10	The training were satisfactory	4	8	25	15	7.69	15.38	48.08	28.85
11	I would recommend this training to my juniours	3	9	12	28	5.77	17.31	23.08	53.85



Jayanta Hasan Basu
Head of the Department
Department of Electrical Engineering
Siliguri Institute of Technology

Siliguri Institute of Technology
Department of Electrical Engineering
Details for Receiving Certificate
Duration: 1.09.2016 to 3.09.2016

Roll no	Name	Signature
11901614001	ABHIJIT DAS	Abhijit Das
11901614002	ABHIJIT DUTTA	
11901614003	ABHISHEK KUMAR	
11901614004	ABHISHEK KUMAR DAS	
11901614005	AHINDRA NARAYAN CHOWDHURY	Ahindra N. Chowdhury
11901614006	ANKITA SAHA	Ankita Saha.
11901614007	ANKOOR SINGH	
11901614008	ANUPAM DATTA	
11901614009	ARKAJIT FOUZDER	
11901614010	ASHA KUMARI	Asha Kumari
11901614011	ASHIM SARKAR	
11901614012	AVIMANYU KUMAR TANTI	Avimanyu Kumar Tanti
11901614013	AVIRUPA DUTTA	Avirupa Dutta.
11901614014	DEBAJIT KARMAKAR	
11901614015	DEBARPAN ROY	
11901614016	DEBARSHI CHAKRABORTY	Debarshi Chakraborty
11901614017	DIPANJAN KARMAKAR	Dipanjan Karmakar
11901614018	DURGESH KUMAR	Durgesh Kumar
11901614019	GOURAV GHOSH	
11901614020	HRIDOY BARMAN	
11901614021	KOUSHIK KARMAKAR	Koushik Karmakar
11901614022	KOUSIK BARMAN	
11901614023	MADHUMITA SARKAR	Madhumita Sarkar
11901614024	MAINAK DE	Mainak De
11901614025	MD ARIF EQUBAL	Md Arif Equbal
11901614026	NIKHIL RAJ	Nikhil Raj
11901614027	PEMBA BHUTIA	
11901614028	PRITAM ROY	Pritam Roy
11901614029	PRIYANKA DAS	Priyanka Das.
11901614030	PURAN SAHA	
11901614031	RAJA CHOUDHURY	Raja Choudhury
11901614032	RIJU NANDI	Riju Nandi
11901614033	RUPAK KUNDU	Rupak Kundu.
11901614034	SABYASACHI MANDAL	Sabyasachi Mandal.
11901614035	SAIKAT MITRA	Saikat mitra.
11901614036	SANDEEP KUMAR GUPTA	Sandeep Kumar Gupta
11901614037	SANJOY KARMAKAR	Sanjoy Karmakar
11901614038	SATARUPA MUKHERJEE	Satarupa Mukherjee
11901614039	SAUBIR GHOSH	Saubir Ghosh.
11901614040	SHIVAM KUMAR CHOWDHARY	Shivam kumar Chowdhary
11901614041	SOUMA BRATA GUHA	Soumabrata Guha.
11901614042	SOUMYADEEP BARMAN	
11901614043	SOUMYADEEP CHANDA	
11901614044	SOUMYAJYOTI PAUL	
11901614045	SUBHADEEP MONDAL	Subhadeep Mondal.

047	SUBHAM DUTTA	Subham Dutta
1614048	SUBHAM SAHA	Subham Saha
11901614049	SUBHAM SARKAR	Subham Sarkar
11901614050	SUCHISMITA ADHIKARY	Suchismita Adhikary
11901614051	SUDARSHAN BASAK	Sudarshan Basak.
11901614052	SUMAN KARMAKAR	Suman Karmakar
11901614053	SUVRAJIT SAHA	Suvrajit Saha.
11901614054	TUHIN CHAKRABORTY	
11901613041 (Y)	VINOD KUMAR JANA	Vinod Kr Jana
151190120024	MD.IRSHAD ALAM	Md. Irshad Alam
151190120025	ABHIJIT KUMAR MANDAL	Abhijit kumar Mandal
151190120026	AKASH ROY	
151190120027	LABANI BARMAN	
151190120028	PURAJIT SARKAR	
151190120029	SANDIPAN NATH	
151190120030	SAYAN DAS	
	SOURAV GUHA	Sourav Guha

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Brief report onBasic Automation Training (PLC) bySiemens during 05.09.2016-28.09.2016

Industrial automation is the use of control systems, such as computers or robots, and information technologies for handling different processes and machineries in an industry to replace a human being. It is the second step beyond mechanization in the scope of industrialization. A PLC or Programmable Logic Controller is a digital computer used for the automation of electromechanical processes in industries. It is designed with multiple input and outputs and has internal relays that help in switching the state of the devices.Siemens is a global powerhouse focusing on the areas of electrification, automation and digitalization. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of systems for power generation and transmission as well as medical diagnosis. In infrastructure and industry solutions the company plays a pioneering role

The program details are as below:

Title of training: Basic Automation Training (PLC)

Resource Organization: Siemens

Duration: 05.09.2016-09.09.2016 (Batch 1), 10.09.2016, 12.09.2016 - 15.09.2016 (Batch 2), 16.09.2016-19.09.2016, 22.09.2016 (Batch 3), 23.09.2016-24.09.2016, 26.09.2016-28.09.2016 (Batch 4)

Time: 9 am -5 pm

Venue: Departmental Seminar Hall& Departmental Lab

The interactive training program was divided in two parts.

- At the beginning program starts with an introductory speech and a brief history of Basic automation and related field of Engineering.
- In the first day Basic constituents of PLC: Signal modules, CPU, Power Supply, mounting rail and MMC, basic operation of PLC are discussed.
- In the secondday Installation guidelines, powering and wiring of modules with information on addressing are covered. In this context concept of programming language and representation in STL, FBD and LAD are discussed.
- In the next period of training Overview of SIMATIC S7 – PLC i.e. Programming Units and using PC as Programming Unit, Hardware Configuration and setting object Properties of Modules in STEP, Step 7 Instructions and programming: Set / Reset, Elementary data type, Load / Transfer, Comparison, basic math instructions, Timers / Counters List etc are covered.
- In thelater period STEP 7 blocks and structured programming, Using Data Blocks, Use of Organization Blocks, Analog signal processing, Introduction to HMI have been covered.
- At the last period of training some hardware based PLC trainer kit has been demonstrated.

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

- In the last session some fruitful interactive discussions was held and a healthy response was received from students end.
- At the end of interactive session some assignments was given to the students related to the outcome of training program.
- The attendance record of the students throughout the training session was satisfactory.
- As per the feedback received from the students end the training program was fruitful and motivating for the students and the trainers have demonstrated all the necessary topics in a healthy manner.

In the concluding part, the trainers thanked all the students for their patience hearing and gave his contact no. and email id in case any students have any query.

The program continued with 55 studentsfrom 3rd yearand60 students from 4th yearElectrical Engineering Department.

H.O.D

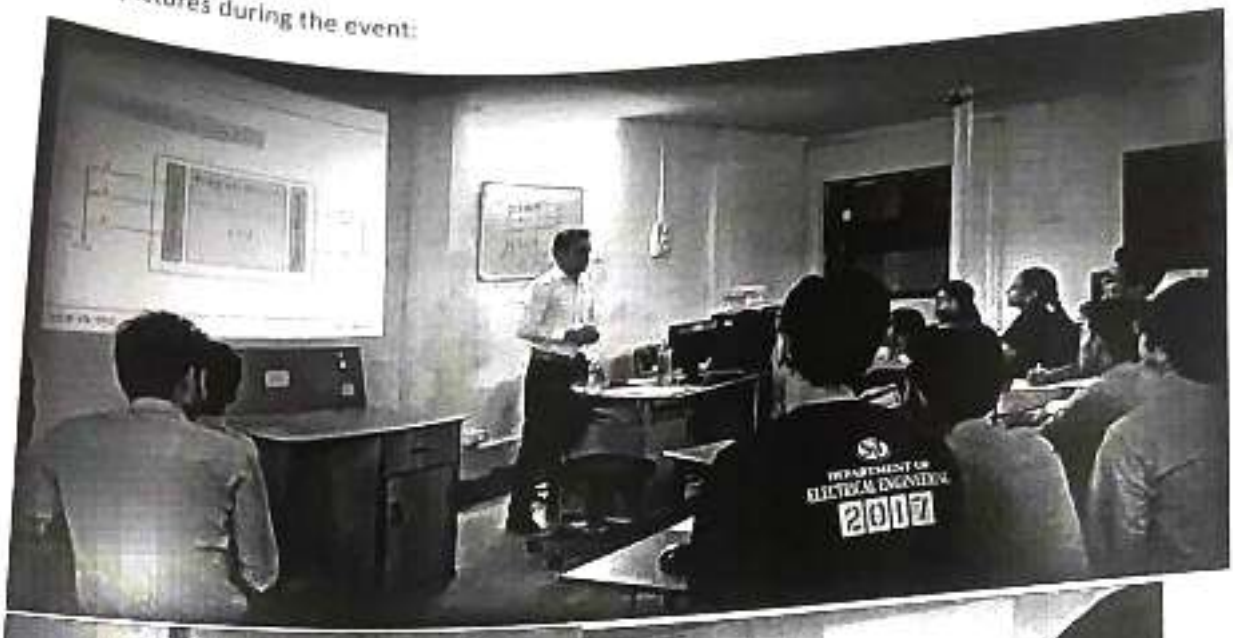
Department of Electrical Engineering

Jayanta Bhusan Basak
Head of the Department
Department of Electrical Engineering
Siliguri Institute of Technology

Coordinator

T & P Sub-Committee

Some pictures during the event:



SIEMENS

SITRAIN

Certificate

Training for Industry

Anand Mohan
Siliguri Institute of Technology, Darjeeling
has undergone the following training programme

Basic Course on Automation

This course was conducted at **Siliguri Institute of Technology** full time from **05/09/2016 to 09/09/2016**

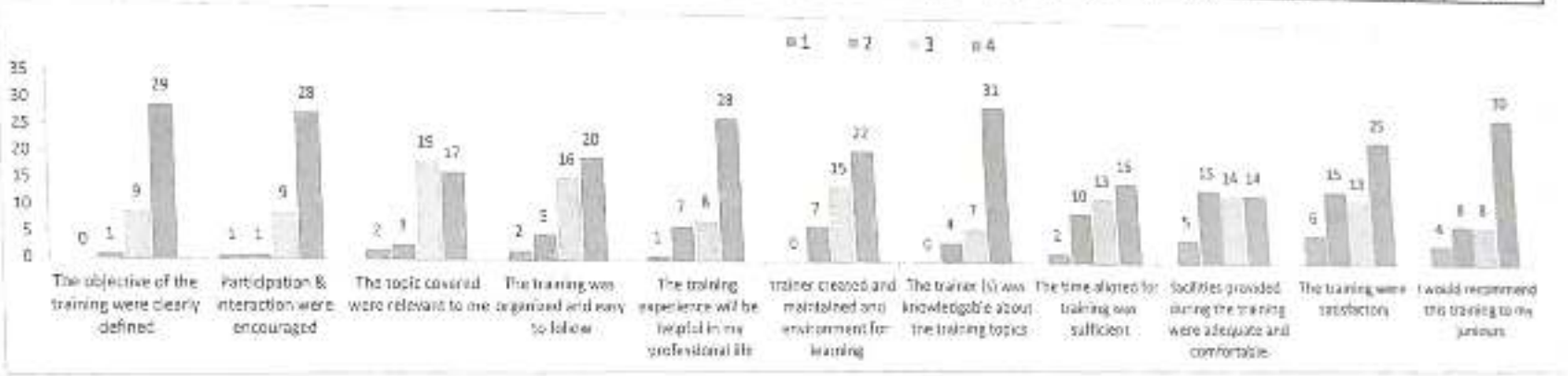
Nilesh Sawant
Chief Manager-Customer Trainings
Industry Sector-Customer Services
RC-IN DF CS TR (India)

Siemens Ltd.
Department: RC-IN DF CS TR
Location: TSDC-Kalwa
Address: Near Airoli Station
Thane –Belapur Road
Thane: 400 601
Contacts: 0091-3966-3208/6087

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
Feedback analysis of Basic automation training (PLC) from SIEMENS
Duration: 05/09/2016-09/09/2016
Batch: 2017 Pass out

Training Organized by: The Department of Electrical Engineering, SILT

Sl.no	Name of the trainer: Mr.Vivek Viswakarma, Trainer, SIEMENS	Rating(1 being lower & 4 being highest rating)				Total No. of Respondents : 39			
	Feedback elements	1	2	3	4	% of rating 1	% of rating 2	% of rating 3	% of rating 4
1	The objective of the training were clearly defined	0	1	9	29	0.00	2.56	23.08	74.36
2	Participation & interaction were encouraged	1	1	9	28	2.56	2.56	23.08	71.79
3	The topic covered were relevant to me	2	3	17	17	5.13	7.69	43.72	43.59
4	The training was organized and easy to follow	2	5	16	20	5.13	12.82	41.03	51.28
5	The training experience will be helpful in my professional life	1	3	8	28	2.56	17.95	20.51	71.79
6	Trainer created and maintained and environment for learning	0	7	15	22	0.00	17.95	38.46	56.41
7	The trainer (s) was knowledgable about the training topics	0	4	7	31	0.00	10.26	17.95	79.49
8	The time alloted for training was sufficient	2	10	13	16	5.13	25.64	33.33	41.03
9	facilities provided during the training were adequate and comfortable.	5	15	14	14	12.82	38.46	35.90	35.90
10	The training were satisfactory	6	15	13	25	15.38	38.46	33.33	64.10
11	I would recommend this training to my juniours	4	8	8	39	10.26	20.51	20.51	76.92



Sl.no	Comments	Students name
1	Arrange few more trainings like this in future.	[illegible] Chakraborty
2	Arrange a visit to any core industry where automation can be seen	Nishi Raj
3	We require more industrial training regarding this topic	Debanjan roy
4	Please arrange a training to Power Grid in the future	Ashim Sarkar
5	Time will be more good	Anujit Poddar
6	Arrange a training in Power grid	Abhidra Narayan Chowdhury
7	Arrange industrial visit in substation	Sushmita Adhikari

Jayanta Bhusan Basu
Head of the Department
Department of Electrical Engineering
Siliguri Institute of Technology

SILIGU... INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRICAL ENGINEERING

ATTENDANCE ON BASIC AUTOMATION TRAINING(PLC) FROM SIEMENS

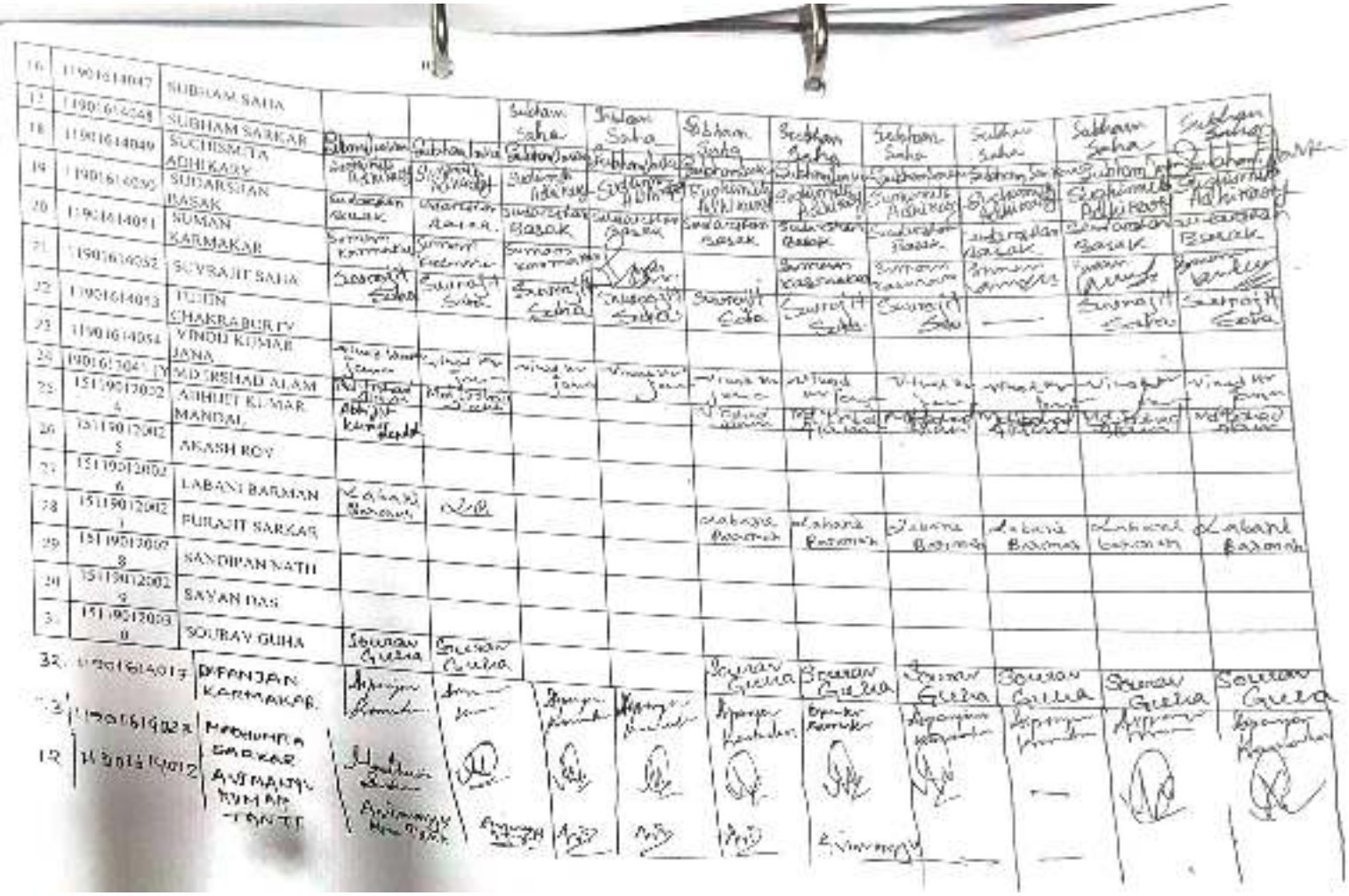
BATCH 1, 5th SEMESTER

Sl. No.	Roll No	Name	10-09-16		12-09-16		13-09-16		14/9/16		15/9/16		16/9/16	16/9/16
			1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st Batch	2nd Batch
1	11901614001	ABHIJIT DAS												
2	11901614002	ABHIJIT DUTTA												
3	11901614003	ABHISHEK KUMAR												
4	11901614004	ABHISHEK KUMAR DAS												
5	11901614005	AHINDRA NARAYAN CHOWDHURY												
6	11901614006	ANKITA SAHA												
7	11901614007	ANKOOR S NGH												
8	11901614008	ANUPAM DATTA												
9	11901614009	ARKAJIT FOUZDER												
10	11901614010	ASHA KUMARI												
11	11901614011	ASHIM SARKAR												
12	11901614012	AVIMANYU KUMAR TANTI												
13	11901614013	AVIRUPA DUTTA												
14	11901614014	DEBAJIT KARMAKAR												
15	11901614015	DEBARPAN ROY												
16	11901614016	DEBARSHI CHAKRABORTY												
17	11901614017	DIPANJAN KARMAKAR												
18	11901614018	DURGESH KUMAR												
19	11901614019	GOURAV GHOSH												
20	11901614020	HRIDOY BARMAN												
21	11901614021	KOUSHIK KARMAKAR												
22	11901614022	KOUSIK BARMAN												

23	11901614023	MADHUMITA SARKAR													
24	11901614024	MAINAK DE													
25	11901614025	MD ARIF EQUBAL													
26	11901614026	NIKHIL RAJ													
27	11901614027	PEMBA BHUTIA													
28	11901614028	PRITAM ROY													
29	11901614029	PRIYANKA DAS													
30	11901614030	PURAN SAHA													
31	11901614031	RAJA CHOUDHURY													

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
ATTENDANCE ON BASIC AUTOMATION TRAINING (PLC) BY SIEMENS
BATCH 2, 5th SEMESTER

Sl. No.	Roll No	Name	19-09-2016		20-09-2016		21-09-2016		22-09-2016		23-09-2016	
			1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half	1st Half	2nd Half
1	11901614032	BIJU NANDI	R. Nandi	R. Nandi	R. Nandi	R. Nandi	R. Nandi	R. Nandi	R. Nandi	R. Nandi	R. Nandi	R. Nandi
2	11901614033	RUPAK KUNDU	RK	RK	RK	RK	—	—	RK	—	RK	RK
3	11901614034	SABYASACHI MANDAL	Mandal	Mandal	Mandal	Mandal	Mandal	Mandal	Mandal	Mandal	Mandal	Mandal
4	11901614035	SAIKAT MITRA							—	—		
5	11901614036	SANDEEP KUMAR GUPTA	Sandeep	Sandeep	[redacted]	[redacted]	Sandeep	Sandeep	Sandeep	[redacted]	Kumar	Kumar
6	11901614037	SANJOY KARMAKAR	Sanjoy	Sanjoy	Sanjoy	Sanjoy	Sanjoy	Sanjoy	Sanjoy	Sanjoy	Sanjoy	Sanjoy
7	11901614038	SATARUPA MUKHERJEE	Satarupa	Satarupa	Satarupa	Satarupa	Satarupa	Satarupa	Satarupa	Satarupa	Satarupa	Satarupa
8	11901614039	SAUBIR GHOSH	Saubir Ghosh	Saubir Ghosh	Saubir Ghosh	Saubir Ghosh	Saubir Ghosh	Saubir Ghosh	—	—	Saubir Ghosh	Saubir Ghosh
9	11901614040	SHIVAM KUMAR CHOWDHARY	Shivam Kumar Chowdhary	Shivam Kumar Chowdhary	Shivam	Shivam	Shivam	Shivam	Shivam	Shivam	Shivam Kumar Chowdhary	Shivam Kumar Chowdhary
10	11901614041	SOUMA BRATA GUHA	Soumabrata Guha	Soumabrata Guha	Soumabrata Guha	Soumabrata Guha	Soumabrata Guha	Soumabrata Guha	Soumabrata Guha	Soumabrata Guha	Soumabrata Guha	Soumabrata Guha
11	11901614042	SOUMYADEEP BARMAN	Barman	Barman	Barman	Barman	Barman	Barman	Barman	Barman	Barman	Barman
12	11901614043	SOUMYADEEP CHANDA	Chanda	Chanda	Chanda	Chanda	Chanda	Chanda	Chanda	Chanda		
13	11901614044	SOUMYAJYOTI PAUL	Soumyajyoti Paul	Soumyajyoti Paul	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
14	11901614045	SUBHADEEP MONDAL	Subhadeep Mondal	Subhadeep Mondal			Subhadeep Mondal	Subhadeep Mondal	Subhadeep Mondal	Subhadeep Mondal	Subhadeep Mondal	Subhadeep Mondal
15	11901614046	SUBHAM DUTTA	Subham Dutta	Subham Dutta	Subham Dutta	Subham Dutta	Subham Dutta	Subham Dutta	Subham Dutta	Subham Dutta	Subham Dutta	Subham Dutta



SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
ATTENDANCE ON BASIC AUTOMATION TRAINING(PLC) FROM SIEMENS
BATCH 1, 7th SEMESTER

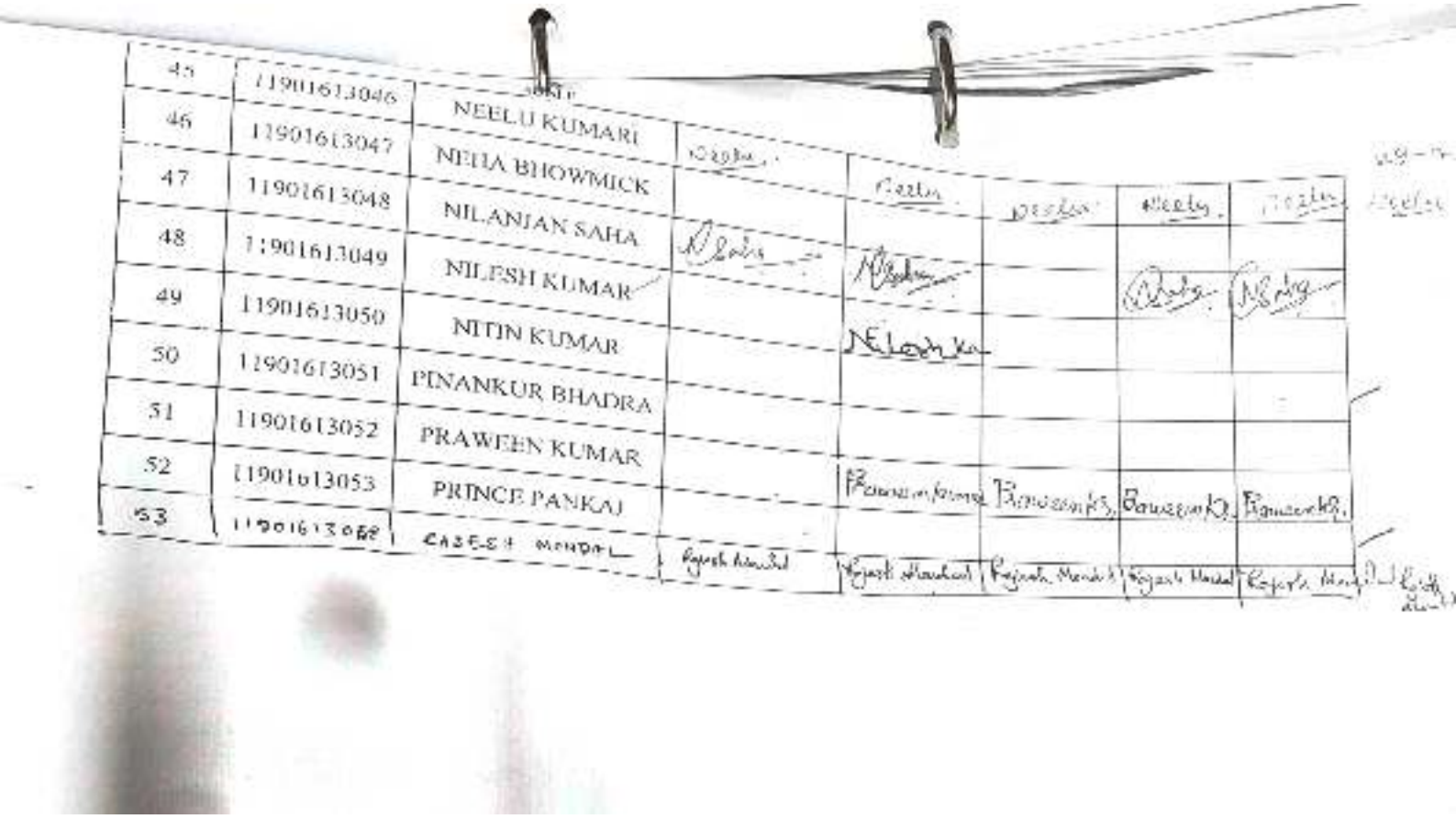
Sl. No.	Roll No.	Name	5/8/2016	6/8/2016	7/8/2016	8/8/2016	9/8/2016
1	11901613001	AAMIR ALI					
2	11901613002	ABHINANDAN MISHRA	Abhinandan Mishra	Abhinandan Mishra	Abhinandan Mishra	Abhinandan Mishra	Abhinandan Mishra
3	11901613003	ABHISEK BHATTACHARJEE					
4	11901613004	ABHISHEK PODDER					
5	11901613005	ADRIJAA PODDAR					
6	11901613006	AKASH CHAKRAVORTY					
7	11901613007	AKASH KIRODIWAL	Akash Kirodiwal	Akash Kirodiwal	Akash Kirodiwal	Akash Kirodiwal	Akash Kirodiwal
8	11901613008	AKASH KUMAR	Akash Kumar	Akash Kumar	Akash Kumar	Akash Kumar	Akash Kumar
9	11901613009	AKASHNEEL CHAKRABORTY					
10	11901613010	AMIT KUMAR					
11	11901613011	ANAAH					
12	11901613012	ANAND MOHAN	Anand Mohan	Anand Mohan			
13	11901613013	ANGSHU PRONIT MAHANTA					

(Batch) 29/09/16

Akash Kirodiwal, Akash Kumar

14	11901613014	ANINDYA KUMAR DAS						
15	11901613015	ARIJIT BOSE						
16	11901613016	ARNAB BHATTACHARJEE						
17	11901613017	ASHISH KUMAR						
18	11901613018	ASHUTOSH KUMAR						
19	11901613019	AVIK ADHIKARY						
20	11901613020	AVISMIT DUTTA						
21	11901613021	AYANDEEP CHATTERJEE						
22	11901613022	BIJAN ROY						
23	11901613023	BITHIKA DAS						
24	11901613024	DEBANGAN SAHA						
25	11901613025	DEBARGHA CHATTERJEE						
26	11901613026	DEBRAJ DUTTA						
27	11901613027	DEEP DEBNATH						
28	11901613028	EHSAN ANJUM						
29	11901613029	GOURAB CHANGDER						
30	11901613030	IMTEAZ AHMED						

31	11901613031	INDRANIL NANDI							
32	11901613032	KARI NONIA	Kari Nonia	Kari Nonia	Kari Nonia	Kari Nonia	Kari Nonia	Kari Nonia	
33	11901613033	KABITA GUPTA	Kabita Gupta	Kabita Gupta	Kabita Gupta	Kabita Gupta	Kabita Gupta	Kabita Gupta	
34	11901613034	KASIF HUSSAIN							
35	11901613035	KISHLAY KUMAR	Kishlay Kumar	Kishlay Kumar	Kishlay Kumar	Kishlay Kumar	Kishlay Kumar	Kishlay Kumar	
36	11901613036	KRISHNA VISHWAKARMA							
37	11901613037	KUMAR KUNAL VERMA							
38	11901613038	KUMAR SHUBHAM							
39	11901613039	MAITRI MOKTAN	Maitri Mokta	Maitri Mokta	Maitri Mokta				Maitri Mokta
40	11901613040	MANJIT RAVIDAS	Manjit Ravidas						
41	11901613042	MD UNUS SALIM	Md Unus Salim	Md Unus Salim	Md Unus Salim	Md Unus Salim	Md Unus Salim	Md Unus Salim	
42	11901613043	MOHANA SARKAR		Mohana Sarkar					
43	11901613044	MRINMOY GHOSH							
44	11901613045	MUKESH KUMAR NONIA	Mukesh Kr Nonia	Mukesh Kr Nonia		Mukesh Kr Nonia	Mukesh Kr Nonia	Mukesh Kr Nonia	



45	11901613046	[illegible]					
46	11901613047	NEELU KUMARI					
47	11901613048	NEHA BHOWMICK					
48	11901613049	NILANJAN SAHA					
49	11901613050	NILESH KUMAR					
50	11901613051	NITIN KUMAR					
51	11901613052	PINANKUR BHADRA					
52	11901613053	PRAWEEN KUMAR					
53	11901613055	PRINCE PANKAJ					
54	11901613056	RAJESH MANDAL	Rajesh Mandal	Rajesh Mandal	Rajesh Mandal	Rajesh Mandal	Rajesh Mandal

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Brief report on 10 days' Summer/Vocational Training on "Motor Winding and Home Appliances" by NSIC, Govt. of India during 01.08.2016-12.08.2016

National Small industries Corporation Ltd., (NSIC), an ISO 9001 certified company, has been working to promote aid and foster the growth of micro and small enterprises since its establishment in 1955. National Small industries Corporation Ltd., (NSIC), operates through its countrywide network of offices and technical Services Centres in country. In addition, NSIC has set up Training-cum Incubation centers in different parts of the country. National Small industries Corporation Ltd., (NSIC), has seven technical support services are being rendered to MSMEs. These centres are located at New Delhi, Rajkot, Chennai, Howrah, Hyderabad, Aligarh and Rajpura. The objective of this scheme is to facilitate establishment of new small enterprises by way of providing integrated services in the areas of training for entrepreneurial skill development, selection of small projects, and preparation of project profile, reports, identification and sourcing of plant, machinery and equipment, facilitating sanction of credit facility and providing other support services in order to boost the development of small enterprises in manufacturing and services sectors.

The program details are as below:

Title of training: Motor Winding and Home Appliances

Resource Person: NSIC Trainers

Duration: 01.08.16-12.08.16

Time: 10 am -5 pm

Venue: Electrical Machines Lab

The interactive seminar was divided in two parts.

- At the beginning program starts with an introductory speech and a brief overview of different electrical machines (transformer, motor, and generator) and their construction, working and practical applications.
- In the first day 1st half a brief introduction of transformer winding configuration has been discussed and the detailed fabrication procedure regarding the same has been demonstrated
- In the 2nd half students forming several groups and they are entitled to design the transformer core and several kinds of winding used in the domestic/industrial transformers
- In the next day a brief discussion regarding the designing of 3-phase Induction motor has been discussed. In this discussion a systematic procedure for the designing of stator as well as rotor designs along with the detailed winding configuration was demonstrated

14

Scanned with CamScanner

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

- In the later period some specific ratings/specifications are allotted to the students for the designing of a 3-phase induction motor winding as well as core. In this particular area for the winding designing students are entitled to design no. of conductors, no of slots, no. of poles, slots/pole/phase, no of turns etc. parameters are taken into consideration.
- In the later period of the training discussion about the designing of DC machines has been discussed. Here the concept of lap winding, wave winding, pole-pitch, commutator pitch, back pitch, front pitch etc. parameters have been discussed and demonstrated.
- In the last day maintenance and repair of some house hold applications like mixer grinders, refrigerators, washing machine, celling fan etc has been discussed and demonstrated.
- In the last session some fruitful interactive discussions was held and a healthy response was received from students end
- At the end of interactive session some assignments was given to the students related to the outcome of the training program.

In the concluding part, trainers thanked all the students for their patience hearing and gave his contact no. and email id in case any students have any query.

The program continued with 106 students from 4th year and 62 students from 3rd year from Electrical Engineering Department.

H.O.D

Department of Electrical Engineering

Head of the Department
Department of Electrical Engineering
Siliguri Institute of Technology

Coordinator

T & P Sub-Committee

Scanned with CamScanner

Some pictures during the event:

Scanned with CamScanner

एन एस आई सी
NSIC
ISO 9001 : 2008

Think of MSME. Think of Us

NATIONAL SMALL INDUSTRIES CORPORATION LTD.
TECHNICAL SERVICES CENTRE

(A Government of India Enterprise Under Ministry of MSME)

BALITIKURI, HOWRAH-711 113

Sl. No. NSIC-TSC(H)/SIT/EE 5th Sem/2016-17/ 2 Date: 22.08.2016

This is to certify that Mr./Ms. Abhijit Dutta

S/o/D/o/M/o/Mr. Ajit Dutta has successfully completed

Training in the course of Motor & Transformer Rewinding and Electrical Home Appliances

from 01.08.2016 to 12.08.2016

During the training period in this centre his/her condurt was Very Good

and his/her performance was found Very Good

Training Coordinator

Head of Training
PALASH BHOWMIK
MANAGER (TRAINING)
NSIC-TECHNICAL SERVICES CENTRE
BALITIKURI, HOWRAH-711113

Head of Institute
GENERAL MANAGER (SG)
NSIC-TECHNICAL SERVICES CENTRE
(A GOVT. OF INDIA ENTERPRISE)
BALITIKURI, HOWRAH

Outstanding : 91%-100%, Very Good : 81%-90%, Good : 70%-80%, Satisfactory : 50%-70%

एन एस आई सी
NSIC
ISO 9001 : 2008

Think of MSME. Think of Us

NATIONAL SMALL INDUSTRIES CORPORATION LTD.
TECHNICAL SERVICES CENTRE

(A Government of India Enterprise Under Ministry of MSME)

BALITIKURI, HOWRAH-711 113

Sl. No. NSIC-TSC(H)/SIT/EE 5th Sem/2016-17/ 1 Date: 22.08.2016

This is to certify that Mr./Ms. Abhijit Das

S/o/D/o/M/o/Mr. Apurba Das has successfully completed

Training in the course of Motor & Transformer Rewinding and Electrical Home Appliances

from 01.08.2016 to 12.08.2016

During the training period in this centre his/her condurt was Very Good

and his/her performance was found Very Good

Training Coordinator

Head of Training
PALASH BHOWMIK
MANAGER (TRAINING)
NSIC-TECHNICAL SERVICES CENTRE
BALITIKURI, HOWRAH-711113

Head of Institute
GENERAL MANAGER (SG)
NSIC-TECHNICAL SERVICES CENTRE
(A GOVT. OF INDIA ENTERPRISE)
BALITIKURI, HOWRAH

Outstanding : 91%-100%, Very Good : 81%-90%, Good : 70%-80%, Satisfactory : 50%-70%

Scanned with CamScanner

DEPARTMENT OF ELECTRICAL ENGINEERING

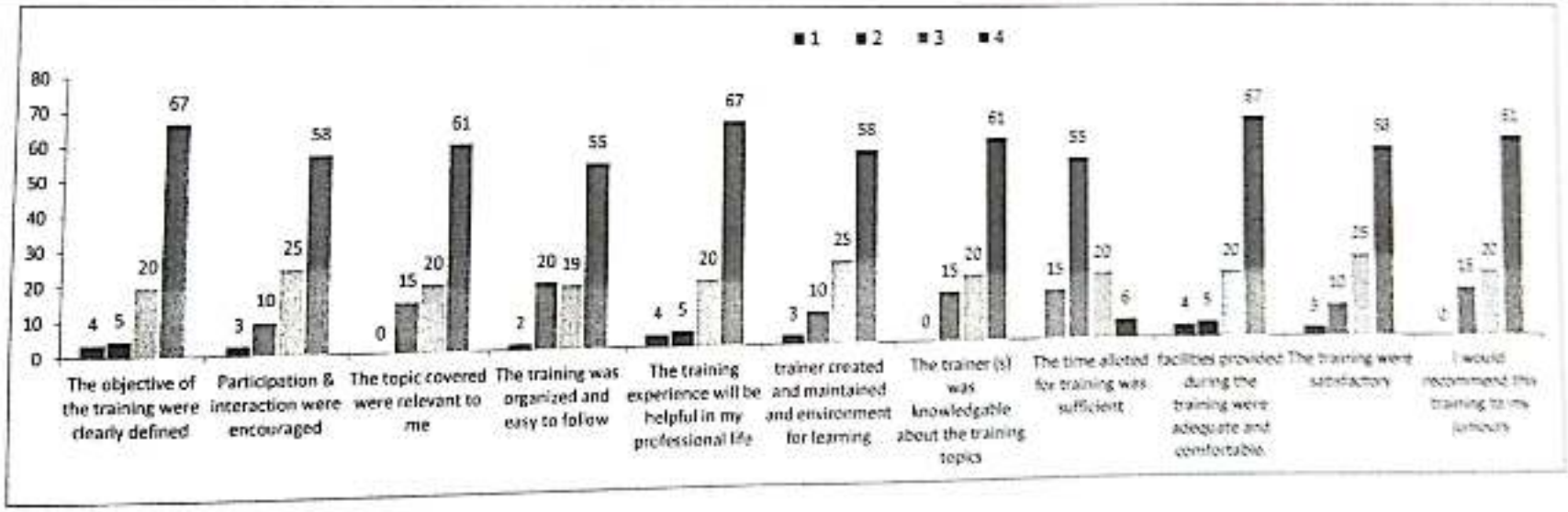
Feedback analysis of Motor winding and Home appliances

2017,2018 Pass out

Duration: 01/08/16-05/08/16, 08/08/16-12/08/16

Training Organized by: The Department of Electrical Engineering, S.I.T

	Name of the trainer: N.S.I.C, Govt. of India	Ratings(1 being lower & 4 being highest rating)				Total No. of Respondents : 96			
Sl.no	Feedback elements	1	2	3	4	% of rating 1	% of rating 2	% of rating 3	% of rating 4
1	The objective of the training were clearly defined	4	5	20	67	4.17	5.21	20.83	69.79
2	Participation & Interaction were encouraged	3	10	25	58	3.13	10.42	26.04	60.42
3	The topic covered were relevant to me	0	15	20	61	0.00	15.63	20.83	63.54
4	The training was organized and easy to follow	2	20	19	55	2.08	20.83	19.79	57.29
5	The training experience will be helpful in my professional life	4	5	20	67	4.17	5.21	20.83	69.79
6	trainer created and maintained and environment for learning	3	10	25	58	3.13	10.42	26.04	60.42
7	The trainer (s) was knowledgable about the training topics	0	15	20	61	0.00	15.63	20.83	63.54
8	The time alloted for training was sufficient	15	55	20	6	15.63	57.29	20.83	6.25
9	facilities provided during the training were adequate and comfortable.	4	5	20	67	4.17	5.21	20.83	69.79
10	The training were satisfactory	3	10	25	58	3.13	10.42	26.04	60.42
11	I would recommend this training to my juniours	0	15	20	61	0.00	15.63	20.83	63.54



Head of the Department
Department of Electrical Engineering
Silicon Institute of Technology

Scanned with CamScanner

Training name: Motor winding and home appliances
%of the classes attained by each students(2017P.O only)
Duration: 01/08/2016-12/08/2016
Department of Electrical Engineering, SIT

Sl. No.	Roll	Name	Attendance	Total class held	% of attendance
1	11901613001	AAMIR ALI	8	10	80
2	11901613002	ABHINANDAN MISHRA	10	10	100
3	11901613003	ABHISEK BHATTACHARJEE	5	10	50
4	11901613004	ABHISHEK PODDER	8	10	80
5	11901613005	ADRIJAA PODDAR	7	10	70
6	11901613006	AKASH CHAKRAVORTY	0	10	0
7	11901613007	AKASH KIRODIWAL	10	10	100
8	11901613008	AKASH KUMAR	6	10	60
9	11901613009	AKASHNEEL CHAKRABORTY	1	10	10
10	11901613010	AMIT KUMAR	6	10	60
11	11901613011	ANAAB	5	10	50
12	11901613012	ANAND MOHAN	0	10	0
13	11901613013	ANGSHU PRONIT MAHANTA	1	10	10
14	11901613014	ANINDYA KUMAR DAS	0	10	0
15	11901613015	ARIJIT BOSE	0	10	0
16	11901613016	ARNAB BHATTACHARJEE	10	10	100
17	11901613017	ASHISH KUMAR	6	10	60
18	11901613018	ASHUTOSH KUMAR	10	10	100
19	11901613019	AVIK ADHIKARY	0	10	0
20	11901613020	AVISMIT DUTTA	2	10	20
21	11901613021	AYANDEEP CHATTERJEE	9	10	90
22	11901613022	BIJAN ROY	10	10	100
23	11901613023	BITHIKA DAS	10	10	100
24	11901613024	DEBANGAN SAHA	8	10	80
25	11901613025	DEBARGHA CHATTERJEE	0	10	0
26	11901613026	DEBRAJ DUTTA	0	10	0
27	11901613027	DEEP DEBNATH	10	10	100
28	11901613028	EHSAN ANJUM	10	10	100
29	11901613029	GOURAB CHANGDER	0	10	0
30	11901613030	IMTEAZ AHMED	0	10	0
31	11901613031	INDRANIL NANDI	0	10	0
32	11901613032	KABI NUNIA	8	10	80
33	11901613033	KABITA GUPTA	10	10	100
34	11901613034	KASIF HUSSAIN	9	10	90
35	11901613035	KISHLAY KUMAR	2	10	20
36	11901613036	KRISHNA VISHWAKARMA	9	10	90
37	11901613037	KUMAR KUNAL VERMA	2	10	20
38	11901613038	KUMAR SHUBHAM	7	10	70
39	11901613039	MAITRI MOKTAN	8	10	80
40	11901613040	MANJIT RAVIDAS	8	10	80
41	11901613042	MD UNUS SALIM	10	10	100

Scanned with CamScanner

42	11901613043	MOHANA SARKAR	8	10	80
43	11901613044	MRINMOY GHOSH	6	10	60
44	11901613045	MUKESH KUMAR NONIA	5	10	50
45	11901613046	NEELU KUMARI	10	10	100
46	11901613047	NEHA BHOWMICK	0	10	0
47	11901613048	NILANJAN SAHA	6	10	60
48	11901613049	NILESH KUMAR	6	10	60
49	11901613050	NITIN KUMAR	9	10	90
50	11901613051	PINANKUR BHADRA	0	10	0
51	11901613052	PRAWEEN KUMAR	9	10	90
52	11901613053	PRINCE PANKAJ	8	10	80
53	11901613054	PUJA DAS	0	10	0
54	11901613055	RAHUL GHOSH	0	10	0
55	11901613056	RAHUL KARMAKAR	0	10	0
56	11901613057	RAHUL SHAW	9	10	90
57	11901613058	RAJESH MONDAL	4	10	40
58	11901613059	RAJNISH KUMAR	9	10	90
59	11901613061	SAIKAT KUNDU	8	10	80
60	11901613062	SAMEER RAJ	5	10	50
61	11901613063	SAMIR TIKHATRI	2	10	20
62	11901613064	SAMRAGGI GHOSH	7	10	70
63	11901613065	SANDIPON ROY	2	10	20
64	11901613066	SANJEEW NARAYAN	0	10	0
65	11901613067	SANKET SAHA	0	10	0
66	11901613068	SAPTARSHI MONDAL	0	10	0
67	11901613069	SHAIBAL KANTA	1	10	10
68	11901613070	SHANKAR BANERJEE	6	10	60
69	11901613071	SHANU KUMAR	9	10	90
70	11901613072	SHIVAM KUMAR	1	10	10
71	11901613073	SHUBHAM KUMAR GUPTA	2	10	20
72	11901613074	SIBARJUN DHAR	7	10	70
73	11901613075	SOHAM SATPATI	7	10	70
74	11901613076	SOMNATH CHAKRABORTY	1	10	10
75	11901613077	SOUMALYA HOM ROY	0	10	0
76	11901613078	SOUMYENDU CHOWDHURY	7	10	70
77	11901613079	SOURAMITA KHAN	8	10	80
78	11901613080	SOURAV GHOSH	10	10	100
79	11901613081	SUBHAJIT SAHIS	4	10	40
80	11901613082	SUBHAM KUMAR ROY	9	10	90
81	11901613083	SUBHANKAR CHOWDHURY	8	10	80
82	11901613084	SUDIPTO MAJI	10	10	100
83	11901613085	SUMAN CHABRI	5	10	50
84	11901613086	SUPRIYA GORAI	9	10	90
85	11901613087	SUSHMITA SEN	9	10	90
86	11901613088	SUVAYU DAS	1	10	10
87	11901613089	SWARUP MONDAL	6	10	60

Scanned with CamScanner

88	11901613090	SWASTI ARYA	10	10	100
89	11901613091	TANMOY SHIL SHARMA	0	10	0
90	11901613092	VED VIRT KUMAR	0	10	0
91	11901613093	VIJAY SARKAR	9	10	90
92	11901613094	VIKRAM KUMAR	9	10	90
93	11901613095	VIVEK KUMAR DUTTA	1	10	10
94	11901613096	VIVEK RAJ	2	10	20
95	11901613097	VIVEK RAJ	7	10	70
96	11901614055	VINAY KUMAR CHAUDHAR	8	10	80
97	11901614056	GOURAV BARUA	5	10	50
98	11901614057	JOYDEEP SARBADHIKARY	10	10	100
99	11901614058	PRERNA BHADRA	9	10	90
100	11901614059	SANJEEB BALA	5	10	50
101	11901614060	SANKHA SUBHRA NANDY	7	10	70
102	11901614061	SHAHIDA ASHRAFI	0	10	0
103	11901614062	SHRAMONA BANERJEE	8	10	80
104	11901614063	SUBHADIP SARKAR	6	10	60
105	11901614064	SWAPRAVA JHAMPATI	0	10	0
		VIKASH PANDEY			

Scanned with CamScanner

2016-17

Training in Networking

Introduction:

Switches, routers, and wireless access points are the essential networking basics. Through them, devices connected to your network can communicate with one another and with other networks, like the Internet. Switches, routers, and wireless access points perform very different functions in a network.

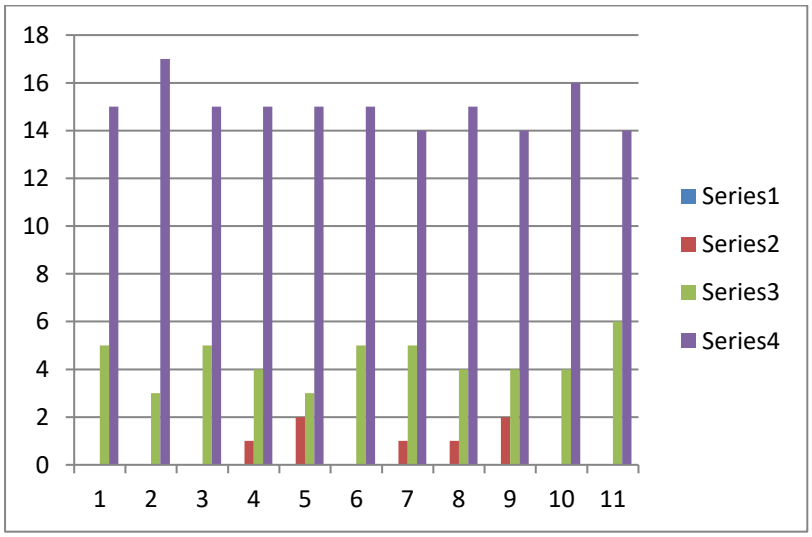
Objective: After attending the training, students should be able to understand

1. Learn network administration, architecture, infrastructure, troubleshooting.
2. Break into the IT industry by learning applied networking skills.

Program Details:

Training Program: Training in Networking
Resource Organization: NSIC
Date: 1/08/2016 to 12/08/2016
Students who can attend: B. Tech (ECE) 7^{h} Sem-2017 PO.

Feedback Analysis.



Report of Feedback Analysis:

Feedback for training was taken on 12th August 2016 with the 3rd year students (2017 PO). Analysis of feedback is listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Very good training session.

List of students who attended networking training

Sl no	Roll No	Name	Enrolled	Participated
1	11900313002	ANKITA SINGH	Y	Y
2	11900313003	APURBA ROY	Y	Y
3	11900313005	ARUNDHUTEE DUTTA	Y	Y
4	11900313006	AVEEK SAHA	Y	Y
5	11900313007	AVERI RAY	Y	Y
6	11900313008	AYANTIKA DEY	Y	Y
7	11900313009	BIKKY ROKA	Y	Y
8	11900313010	BIKRAM CHAKRABORTY	Y	Y
9	11900313011	DEBABRATA BANERJEE	Y	Y
10	11900313012	DEBASHISH MUKHERJEE	Y	Y
11	11900313014	DHRITIKANA DAS	Y	Y
12	11900313015	DIBAKAR SAHA	Y	Y
13	11900313016	DIPAYAN BHATTACHARYA	Y	Y
14	11900313017	DISHA MANDAL	Y	Y
15	11900313019	KUNDAN KUMAR CHOURASIA	Y	Y
16	11900313020	MANORANJAN KUMAR	Y	Y
17	11900313021	MAYANK KUMAR	Y	Y
18	11900313022	MD NASIR KHAN	Y	Y
19	11900313023	MONA	Y	Y
20	11900313024	MUNNA PRASAD KOIRI	Y	Y
21	11900313025	NAVIN KUMAR	Y	Y
22	11900313026	NIDHI PRIYA	Y	Y
23	11900313028	PANKAJ GUPTA	Y	Y
24	11900313029	PARTHA SARMA	Y	Y
25	11900313030	PRADYUT DATTA	Y	Y
26	11900313031	PRAGATI KUMARI	Y	Y
27	11900313032	PRAGYA ROY CHOWDHURY	Y	Y
28	11900313033	PRANOY DAS	Y	Y
29	11900313034	PRAVEEN KUMAR OJHA	Y	Y
30	11900314044	Souvik Bose	Y	Y
31	11900313035	PREM KUMAR	Y	Y
32	11900313036	PROTEEM GANGULY	Y	Y
33	11900313037	RAHUL GHOSH	Y	Y
34	11900313038	RAHUL KUMAR	Y	Y
35	11900313039	RAJAN KESHARI	Y	Y
36	11900313040	RITIKA DE	Y	Y
37	11900313041	SAIKAT MAJUMDER	Y	Y
38	11900313042	SAMIKSHA RAI	Y	Y
39	11900313043	SANOJ MAHATO	Y	Y
40	11900313044	SAYANI NANDY	Y	Y
41	11900313045	SAYANIPA BARDHAN	Y	Y

List of students who attended networking training

Sl no	Roll No	Name	Enrolled	Participated
42	11900313046	SHALINI DEY	Y	Y
43	11900313047	SHARTHAK DAS	Y	Y
44	11900313048	SHEKHAR SUMAN	Y	Y
45	11900313049	SHREYA BHOWMIK	Y	Y
46	11900313050	SHUBHASHREE DAS	Y	Y
47	11900313051	SHUBHRANEEL SARKAR	Y	Y
48	11900313052	SITAM GIRI	Y	Y
49	11900313053	SOURAV KUMAR MAHATO	Y	Y
50	11900313054	SREETAMA DUTTA	Y	Y
51	11900313055	SUBHADEEP GOSWAMI	Y	Y
52	11900313056	SUBHAM ORAON	Y	Y
53	11900313057	SUBHANKAR GHOSH	Y	Y
54	11900313058	SUBODH TAMANG	Y	Y
55	11900313059	SUNANDA	Y	Y
56	11900313060	SUPRIYA SHAW	Y	Y
57	11900313061	SYED SAHAJAHAN ALAM	Y	Y
58	11900313062	TANUMOY DAS	Y	Y
59	11900313063	TANVIRUL MOSHAHID ANSARI	Y	Y
60	11900313064	TRISHITA BASU	Y	Y
61	11900313065	UTSA SARKAR	Y	Y
62	11900313066	VISHAL KUMAR MANDAL	Y	Y
63	11900314043	Bulti Mandal	Y	Y
64	11900314045	Sujit Mandal	Y	Y
65	11900314046	Victor Keshri	Y	Y
66	11900313004	Arnav Ghosh	Y	Y

Training on CORE JAVA

Introduction:

Java is a high-level programming language originally developed by Sun Microsystems and released in 1995. Java runs on a variety of platforms, such as Windows, Mac OS, and the various versions of UNIX. This tutorial gives a complete understanding of Java. This reference will take you through simple and practical approaches while learning Java Programming language. This training is an introduction to Core Java. It starts with steps to install required software and editor. It has details of OOPS concept with detailed examples and great explanation. It covers important concepts of Core Java. It covers History of Java, Origin, Features of Java, OOPS, Array and Multidimensional arrays. What is class, Control structures, Object, Method and different types of constructor, String, Exception Handling and Collection Framework examples. Each topic is covered with detailed explanation and with examples.

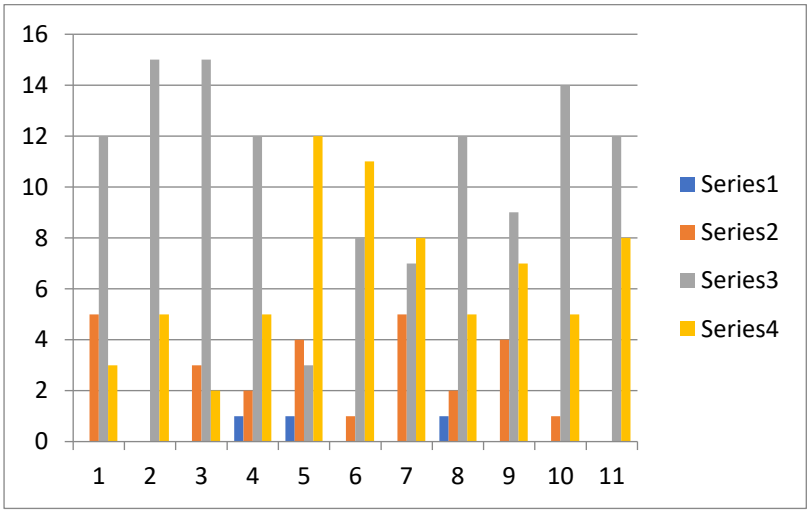
Course Objectives: After the training program, students will be able to:

1. Understand fundamentals of programming such as variables, conditional and iterative execution, methods, etc.
2. Understand fundamentals of object-oriented programming in Java, including defining classes, invoking methods, using class libraries, etc.
3. Be aware of the important topics and principles of software development.
4. write a computer program to solve specified problems.
5. use the Java SDK environment to create, debug and run simple Java programs.

Program Details:

Training Program: CORE JAVA
Resource Organization: I & We
Date: 10.04.2017-14.04.2017
Students who can attend: B. Tech (ECE) 4^{h} Sem-2019 PO.

Feedback Analysis:



REPORT of FEEDBACK ANALYSIS:

Feedback for training was taken on 14th April, 2017 with the 2nd year students (2019 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Laptop table should be provided.
3. Online material should be provided for making clear the concept.
4. Sitting arrangements should be improved.

List of students who attended the advance Java Program

Sl.no	Roll no	Name	Enrolled	Participated
1	11900314001	ABHIJEET KUMAR	Y	N
2	11900314002	AMBIKA CHAKRABORTY	Y	Y
3	11900314003	ANASUYA BHATTACHARJEE	Y	Y
4	11900314004	ANKITA SAHA	Y	Y
5	11900314005	ANKUR CHAKRABORTY	Y	Y
6	11900314006	ARNAB DAS	Y	Y
7	11900314007	ARPAN SARKAR	Y	N
8	11900314008	BHISHMA DEB ROY	Y	N
9	11900314009	BISHAL JAIN	Y	N
10	11900314010	CHAMPA PAUL	Y	Y
11	11900314012	GAUTAM C DEY	Y	Y
12	11900314013	JAYANTIKA MITRA	Y	Y
13	11900314014	JUI GHOSH	Y	Y
14	11900314015	KAJAL KUMARI	Y	Y
15	11900314016	KARAN SAHA	Y	Y
16	11900314017	KOUSIK PURKAIT	Y	Y
17	11900314018	MEGHNA KARMAKAR	Y	N
18	11900314020	P P SARKAR	Y	N
19	11900314021	PIYALI PAUL	Y	Y
20	11900314022	PRITHIRAJ DUTTA	Y	N
21	11900314023	PRIYANKA BHADRA	Y	Y
22	11900314024	RAJDEEP BHATTACHARJEE	Y	Y
23	11900314025	RATUL PAUL	Y	Y
24	11900314026	RISHAV MAZUMDER	Y	N
25	11900314027	ROMITA CHOWDHURY	Y	Y
26	11900314028	RUNNU KUMARI	Y	Y
27	11900314029	SARANSH CHOUDHARY	Y	Y
28	11900314030	SARITA KUMARI	Y	Y
29	11900314031	SAYAN KUNDU	Y	Y
30	11900314032	SAYANTANY ROY	Y	Y
31	11900314033	SHUBHAM CHAKRABARTY	Y	Y
32	11900314034	SIRSHA DAS	Y	Y
33	11900314035	SOUMYA CHATTERJEE	Y	Y
34	11900314036	SOUMYADEV BANDOPADHYAY	Y	N
35	11900314037	SOURODIP DEY	Y	Y
36	11900314038	SUBHRA PAL	Y	Y
37	11900314039	SUBRATA SARKAR	Y	Y
38	11900314040	SWAPNIL PRADHAN	Y	Y
39	11900314041	SWETA MITRA	Y	Y
40	11900314042	VAIBHAV SINGH	Y	Y
41	11900315066	PINAK PRODHAN	Y	N

Training on Core JAVA

Introduction:

We must improve our basic knowledge to master in this field. Java is divided into two parts i.e., **Core Java (J2SE)** and **Advanced Java (JEE)**. The core Java part covers the fundamentals (data types, functions, operators, loops, thread, exception handling, etc.) of the Java programming language. It is used to develop general purpose applications. **Core Java** is the part of **Java** programming language that is used for creating or developing a general-purpose application. ... To develop general purpose applications. To develop online application and mobile application. Without **Core Java** no one can develop any advanced **java** applications.

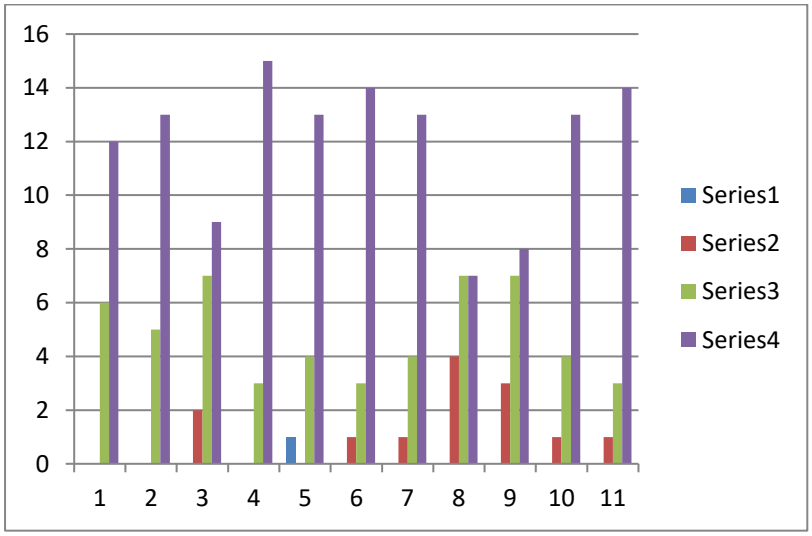
Objective: After attending the training, students should be able to understand

1. The basic concepts of the Java programming language.
2. The core topics such as OOPs, inheritance, exception handling, etc.

Program Details:

Training Program: Core JAVA
Resource Organization: NSIC
Date: 01/08/2016 to 05/08/2016 and 08/08/2016 to 12/08/2016
Students who can attend: B. Tech (ECE) 5^{h} Sem-2018 PO.

Feedback Analysis



Report of Feedback Analysis:

Feedback for training was taken on 12th August 2016 with the 3rd year students (2018 PO). Analysis of feedback is listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Sitting arrangements should be improved.
3. Due to problem of internet connection students faced difficulty to do their project work.

List of Students attended CORE JAVA TRAINING programme

SL. NO	Roll number	Name	Enrolled	Participated
1	11900315001	ABHAY KUMAR TIWARI	Y	N
2	11900315002	ABHISHEK ANAND	Y	Y
3	11900315003	ADITYA NAG	Y	Y
4	11900315004	AGRAPRIYA DAS	Y	N
5	11900315005	AMIT SHARMA	Y	Y
6	11900315006	ANIKET BHOWMICK	Y	Y
7	11900315007	ANKITA DEY	Y	N
8	11900315008	ANNESHA MUKHERJEE	Y	Y
9	11900315009	ARIJIT SAHA MONDAL	Y	Y
10	11900315010	ARSHIYA DAS	Y	Y
11	11900315011	ASHISH KUMAR GUPTA	Y	Y
12	11900315012	AYAN MONDAL	Y	Y
13	11900315013	AYUSH GUPTA	Y	Y
14	11900315014	BHASKAR KUMAR JHA	Y	Y
15	11900315015	DEBASIS BISWAS	Y	Y
16	11900315016	DURBA SARKAR	Y	N
17	11900315017	FALGUNI NANDY	Y	Y
18	11900315018	GOPAL KRISHNA	Y	Y
19	11900315019	HARSHAN BHATTACHARJEE	Y	Y
20	11900315020	IMTIAZ ALI AHMED	Y	Y
21	11900315021	JOYDIP SUTRADHAR	Y	N
22	11900315022	KISHOR KUMAR	Y	Y
23	11900315023	KOUSHIK DEY	Y	Y
24	11900315024	KRIPAYAN BOSE	Y	Y
25	11900315025	KUNAL SINGH	Y	Y
26	11900315026	MADHUBARSHA THAKUR	Y	N
27	11900315027	NEELASH BISWAS	Y	Y
28	11900315028	NEHA KUMARI BHAGAT	Y	N
29	11900315029	NITESH KUMAR	Y	Y
30	11900315030	OZOSWITA ROY DEB	Y	Y
31	11900315031	PIYASI KUNDU	Y	N
32	11900315032	POULAMI GHOSH	Y	Y
33	11900315033	PRAGYANIKA PRADHAN	Y	Y
34	11900315034	PRIYANKA MAHAJAN	Y	Y
35	11900315035	RAJIB GHOSH	Y	Y
36	11900315036	RAJIB NANDI	Y	Y
37	11900315037	RAJIB SINGHA	Y	N
38	11900315038	RESHU KUMAR	Y	Y
39	11900315039	RINA GUPTA	Y	Y
40	11900315040	RUPAM KUMARI	Y	Y
41	11900315041	SAHELI PAUL	Y	N
42	11900315042	SAMBANDH PRADHAN	Y	Y

List of Students attended CORE JAVA TRAINING programme

SL. NO	Roll number	Name	Enrolled	Participated
43	11900315043	SANDIPAN ROY	Y	Y
44	11900315044	SANJIB DAS	Y	Y
45	11900315045	SATKAR TAMANG	Y	Y
46	11900315046	SAYAN BISWAS	Y	Y
47	11900315047	SAYANTANI JANA	Y	Y
48	11900315048	SAYON CHAKRABORTY	Y	Y
49	11900315049	SHIWANGI SINGH	Y	Y
50	11900315050	SHWETA DAS	Y	Y
51	11900315051	SOURADIP SARKAR	Y	Y
52	11900315052	SUBHAM ROY	Y	Y
53	11900315053	SUBORNOSHREE SAHA	Y	Y
54	11900315054	SUPRIYA PAUL	Y	N
55	11900315055	SURUPA GHOSE	Y	Y
56	11900315056	SUVADIP DAS	Y	N
57	11900315057	SUVAM KUMAR THAPA	Y	Y
58	11900315058	SWEETY KUMARI	Y	Y
59	11900315059	TALHA ZUBAIR	Y	Y
60	11900315060	TANIYA BHADRA	Y	N
61	11900315061	TAPAS ROY	Y	Y
62	11900315062	TRITASHA MANI	Y	Y
63	11900315064	VIKASH KUMAR SINGH	Y	N
64	11900315063	VERSHA RANI	Y	Y
65	11900315065	VISHAKA SUBBA	Y	Y
67	11900316001	ZISHAN QUADRI	Y	Y
68	11900316003	SAMAUN ALI	Y	Y
69	11900316004	MANISHA BHADRA	Y	N
70	11900316005	HIMANSHU KUMAR	Y	Y
71	11900316006	GARGI CHAKROBORTY	Y	Y
72	11900316007	ARPITA DAS	Y	Y
73	11900316008	ABHIK SAHA	Y	Y

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

Report for the training on STAAD PRO conducted during 16/08/2016 to 02/09/2016 for 2017 pass out CE students.

Objective of the training: Students will be proficient in STAAD.Pro tool and able to perform different structural design and analysis case studies / projects.

Outcome of the program:

Students will be able to:

- Begin with basics and then move on to the professional tools.
- Effectively learn Bentley STAAD.Pro on account of learning paths and modules defined and developed by an industrial working professionals and Bentley Systems.

The program details are as below:

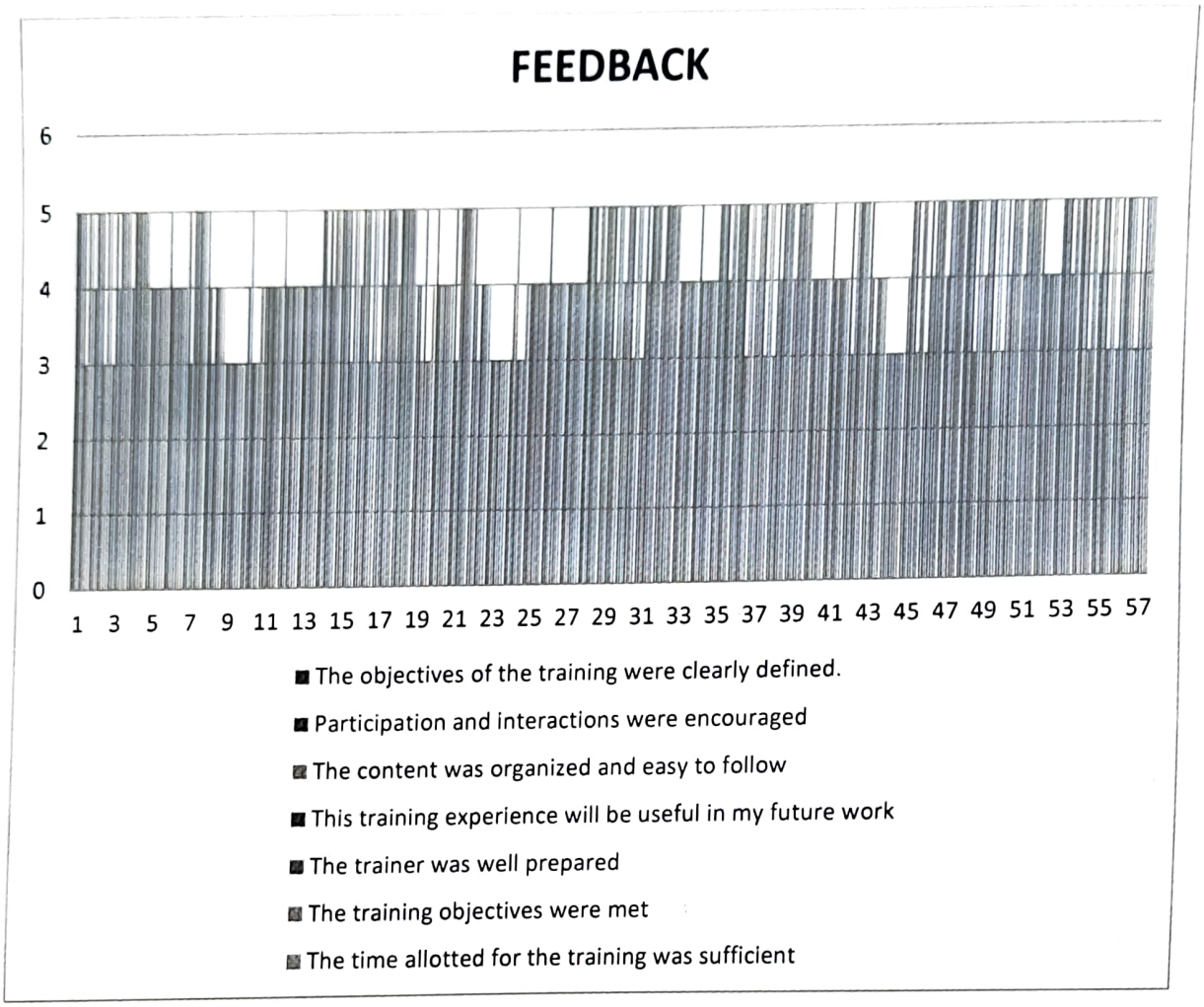
Title of training : STAAD PRO
Rersource Organization: CADD Centre
Date : 16/08/2016 to 02/09/2016
Venue : Department of Civil Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- At the beginning they were introduced to the STAAD.Pro and given an elaborated idea of its application in the different areas of the industry
- The topics discussed and taught during the intermediate days of the training were basics, analysis of a structure, load combination and designing of the analysed structure.
- Students analyses many structures during the session
- At the end of the training an online exam was conducted
- As per the feedback received from the students end, the entire session was a real success and students learned and enjoyed the session on STAAD PRO

Feedback analysis for training:



HOD, Dept. of Civil Engineering

Departmental T&P Coordinator
Dept. of Civil Engineering

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

Report for the training on Total Station Survey conducted during 01/08/2016 to 05/08/2016 and 08/08/2016 to 12/08/2016 for 2018 pass out CE students.

Objective of the training: Students will become good surveyor with special skills and digital surveying techniques that is of greater importance in the practical field.

Outcome of the program:

Students will be able to:

- Begin with fundamentals of total station survey.
- Learn on-site digital surveying techniques, which while help to gain practical understanding and essential skill sets required for work in surveying industry.

The program details are as below:

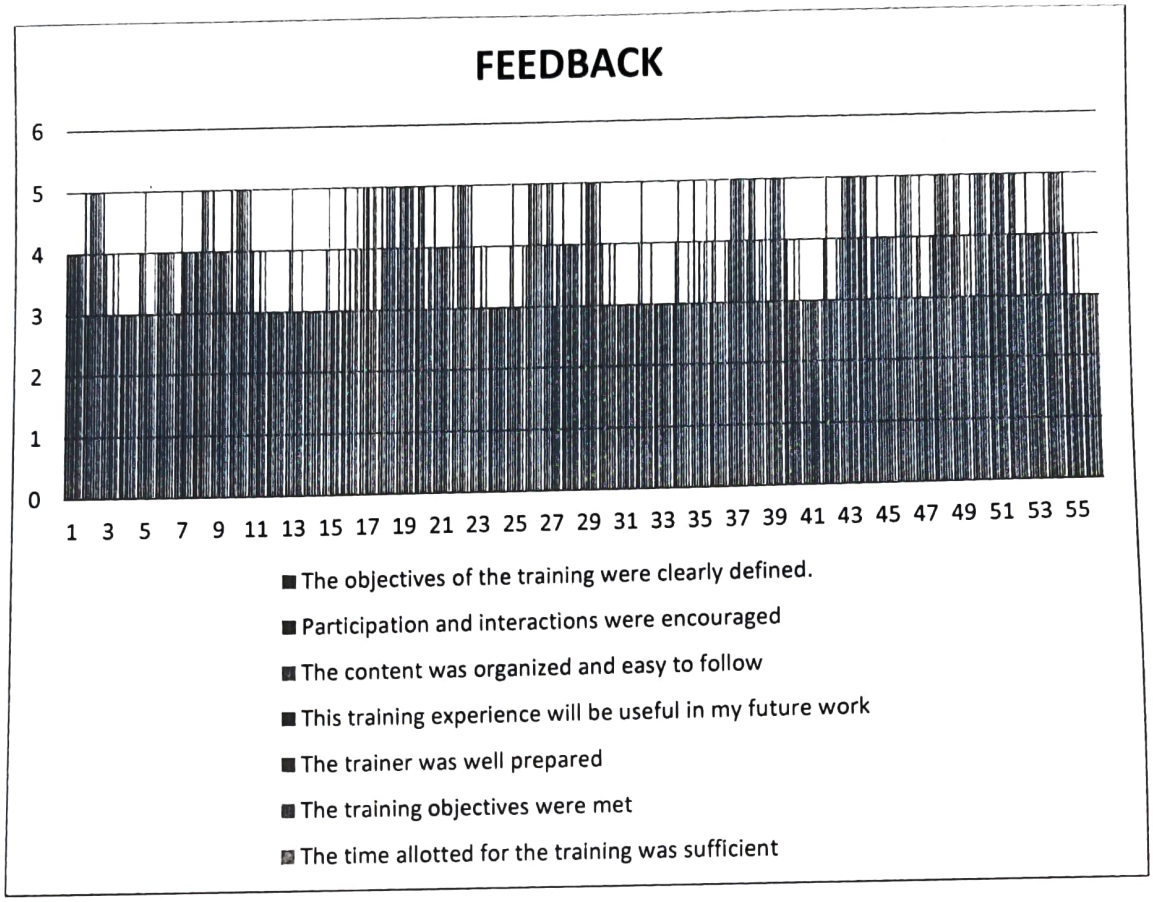
Title of training : Total Station Survey
Rersource Organization: NSIC
Date : 01/08/2016 to 05/08/2016 and 08/08/2016 to 12/08/2016
Venue : Dept. of Civil Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- At the beginning they were introduced to fundamentals of total station survey.
- The topics discussed and taught during the intermediate days of the training were total station setting and survey, drawing and map preparation using TS data
- At the end of the training an online exam was conducted
- As per the feedback received from the students end, the entire session was a real success and students learned and enjoyed the session on Total Station Survey

Feedback analysis for training:



HOD, Dept. of Civil Engineering

Departmental T&P Coordinator
Dept. of Civil Engineering

Report for Training on advanced JAVA during 01/08/2016 to 12/08/2016 for 3rd year 2017 pass out batch

Introduction:

Apart from University requirement, Java is also a pre-requisite for learning latest technologies like Android and Big Data. In order to prepare and make students ready for industry Computer science department has carved out a course that specifically aligns with industry requirements and conducted by industry experts.

The course 'OOPS with Java' was designed as 12 days online training conducted for 2nd year CSE and IT students. In this training session students learned basic object oriented concepts such as inheritance, encapsulation, and abstraction. They learn how to create and use simple Java classes containing arrays, loops, and conditional constructs. They also learn to use and manipulate object references, and to write simple error handling code. They also learned some advance topic like JSP, Servlates.

Training Objective :

Upon completion of this course, participants will be able to :

- Understand fundamentals of Java programming such as variables, conditional and iterative execution, methods, etc
- Understand fundamentals of object-oriented programming using Java, including defining classes, invoking methods, using class libraries, etc.
- Be able to use the Java SDK environment to create, debug and run simple Java programs
- Be aware of the important topics and principles of software development and write better &more maintainable code
- Be able to program using advanced Java topic like JDBC, Servlets and JSP .

Training Methodology:

- Online on approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: Advanced JAVA

Resource Organization/ Name of Trainer: NSIC

Date: 01/08/2016 to 12/08/2016

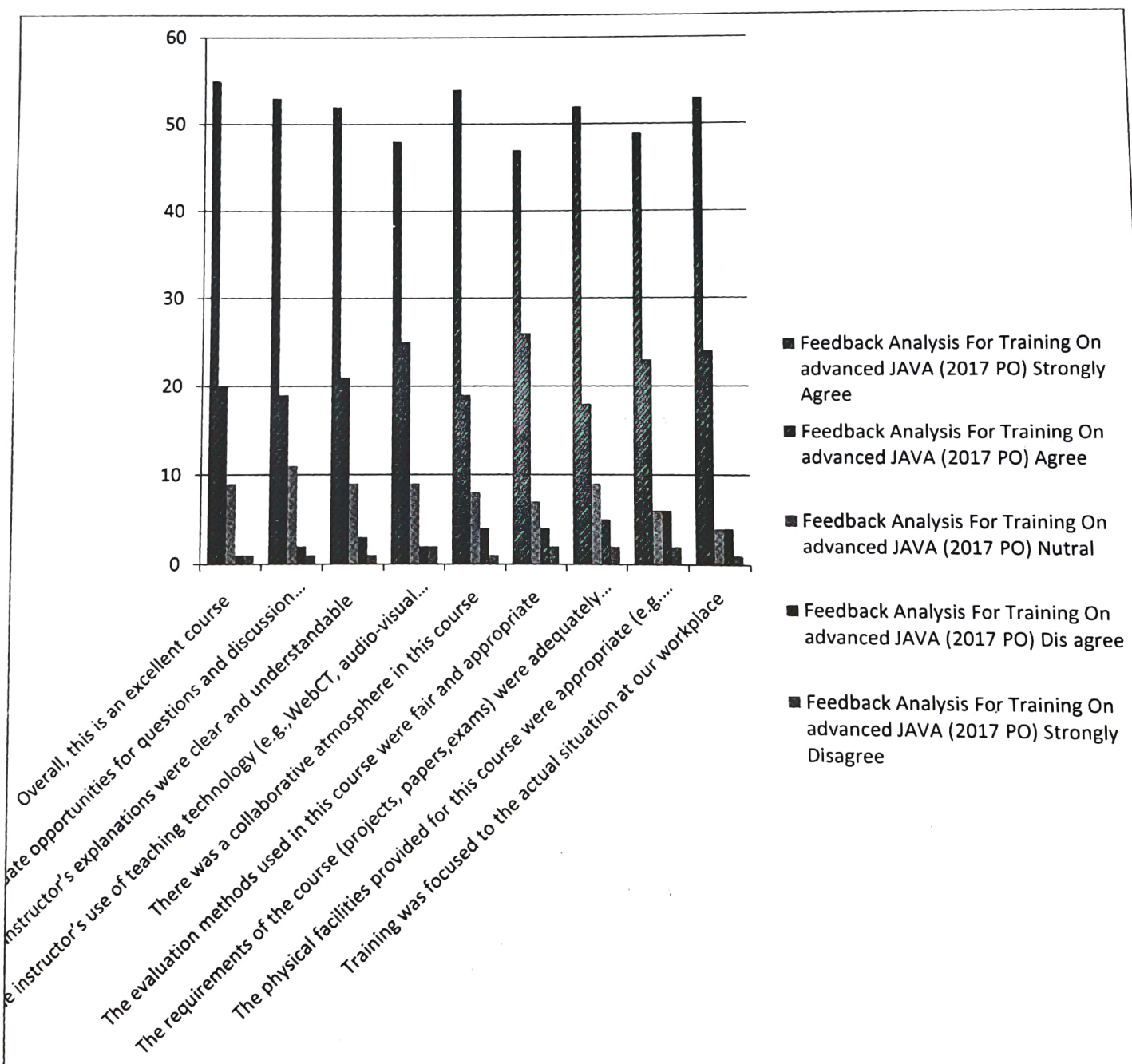
Venue: SIT, Programming Lab I/ SIT, Programming Lab II/OT&UML Lab

Summary of the program:

The following points can be noted from the program.

- ❖ At the beginning of the training trainer has clearly described the basic Introduction to, OOPs programming and java its application in industries in different areas with the students.
- ❖ Students had done many programming by themselves during the trainings.
- ❖ During the training some students raised their queries and the trainer had explained all the quarries of the students.
- ❖ At the end of the training an online exam was conducted.
- ❖ As per the feedback received from the students end, the entire session was really fruitful
- ❖ and enjoyable and the students have learned many things about Java

Feedback analysis for the training:



Report for Training on PHP & MySQL during 01/08/2016 to 12/08/2016 for 2nd year 2018 pass out batch

Introduction :

PHP is a server-side scripting language having several frameworks, for instance, Laravel, Symfony, Phalcon and Cake PHP etc. The fundamental functioning of these frameworks is to assist in the promotion of rapid application development (RAD). Laravel is chosen preferably by most of the developers over any other Frameworks considering the compatibility and steady pace it offers to its user. Laravel is a free and open source framework based upon model-view-controller which lets developers build smooth web applications. Laravel allows users to access relational database(Mysql) in a different and easy.

Objective:

students will able to learn

- To enhance the student understanding on the basic yet essential skill of Web Development in an effective way.
- To Use the MVC pattern to organize code
- To Test and debug a PHP application
- To Work with relational data base
- To Use cookies and sessions
- To Work with regular expressions, handle exceptions, and validate data.

PHP : PHP is the web development language written by and for web developers. PHP stands for Hypertext Preprocessor. It is a robust, server-side, open source scripting language that is extremely flexible and very easy to learn. PHP is also cross platform which means that PHP scripts will run on UNIX, Linux, Windows NT server and now Mac OS (Why PHP, 2004). In (Linux. n.d.), PHP is defined as an official module of Apache HTTP server, the market-leading free web server that runs about 67 percent of the web servers.

MySQL : MySQL (pronounced My SEE Q EL) is one of the standard query languages for interacting with databases. MySQL is an open source database server that is free and extremely fast. MySQL is also cross platform and it has a high customer base for its flexible licensing terms, ease of use and high performance. Its acceptance was aided in part by the wide variety of other technologies such as PHP, Java and Perl (Linux. n.d.).

Apache : Apache is the most popular of all the web servers available because it supplies basic web server functionalities (Linux Web Solutions, 2000).

Training Methodology:

- Hands on practice to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation web programming techniques through a Project.

Training Details:

Title of Training: PHP & MySQL

Resource Organization/ Name of Trainer: NSIC

Date: 01/08/2016 to 12 /08/2016

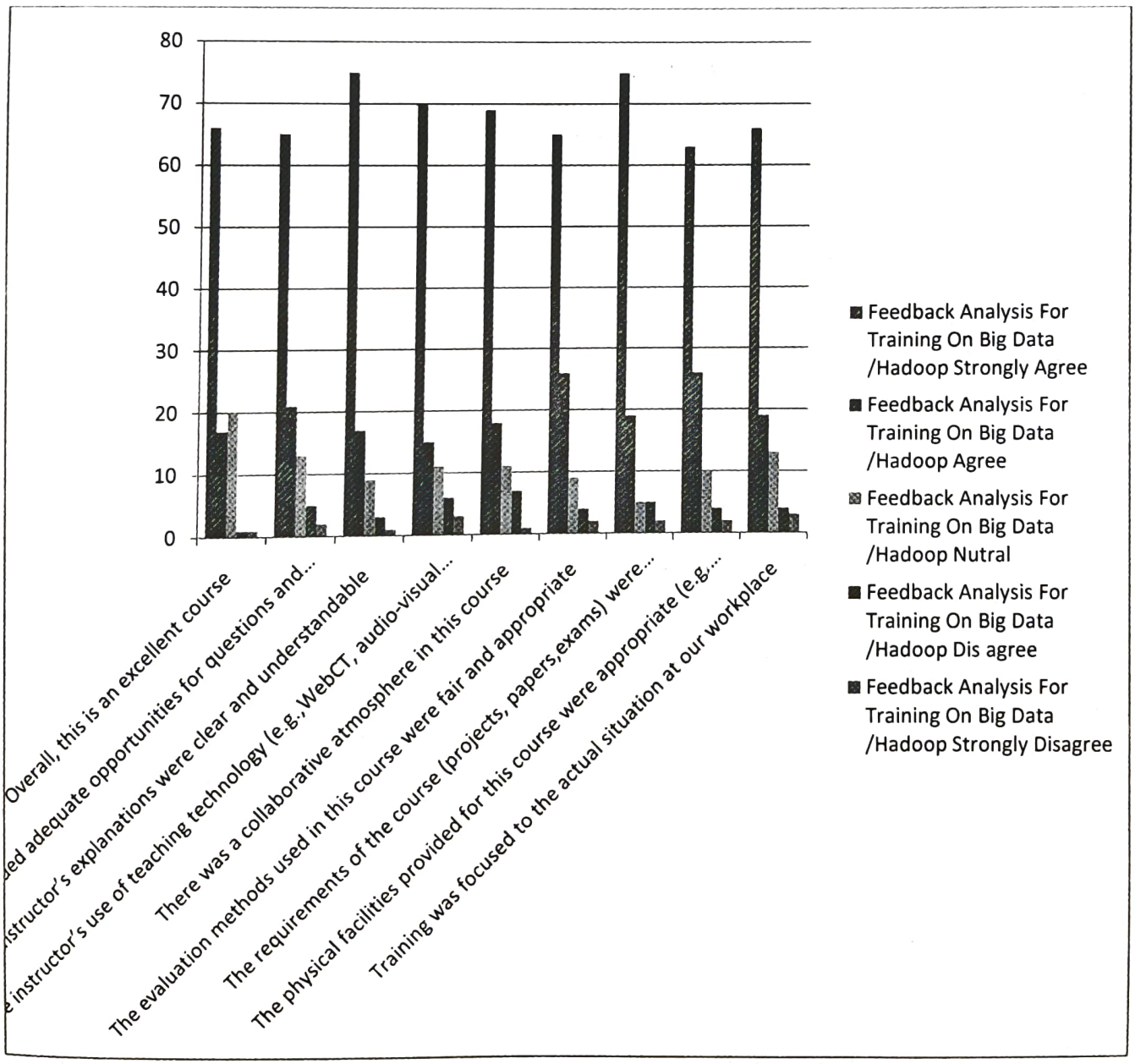
Venue: SIT Project lab/SIT Programming LAB II/SIT OT&UML Lab

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction to PHP and its application in industries in different areas with the students.
- Students had done many programming by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned many things about MySql data base

Feedback analysis for the training:



Report for Training on advanced JAVA during 01/08/2016 to 12/08/2016 for 3rd year 2017 pass out batch

Introduction:

Apart from University requirement, Java is also a pre-requisite for learning latest technologies like Android and Big Data. In order to prepare and make students ready for industry Computer science department has carved out a course that specifically aligns with industry requirements and conducted by industry experts.

The course 'OOPS with Java' was designed as 12 days online training conducted for 2nd year CSE and IT students. In this training session students learned basic object oriented concepts such as inheritance, encapsulation, and abstraction. They learn how to create and use simple Java classes containing arrays, loops, and conditional constructs. They also learn to use and manipulate object references, and to write simple error handling code. They also learned some advance topic like JSP, Servlates.

Training Objective :

Upon completion of this course, participants will be able to :

- Understand fundamentals of Java programming such as variables, conditional and iterative execution, methods, etc
- Understand fundamentals of object-oriented programming using Java, including defining classes, invoking methods, using class libraries, etc.
- Be able to use the Java SDK environment to create, debug and run simple Java programs
- Be aware of the important topics and principles of software development and write better &more maintainable code
- Be able to program using advanced Java topic like JDBC, Servlets and JSP .

Training Methodology:

- Online on approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: Advanced JAVA

Resource Organization/ Name of Trainer: NSIC

Date: 01/08/2016 to 12/08/2016

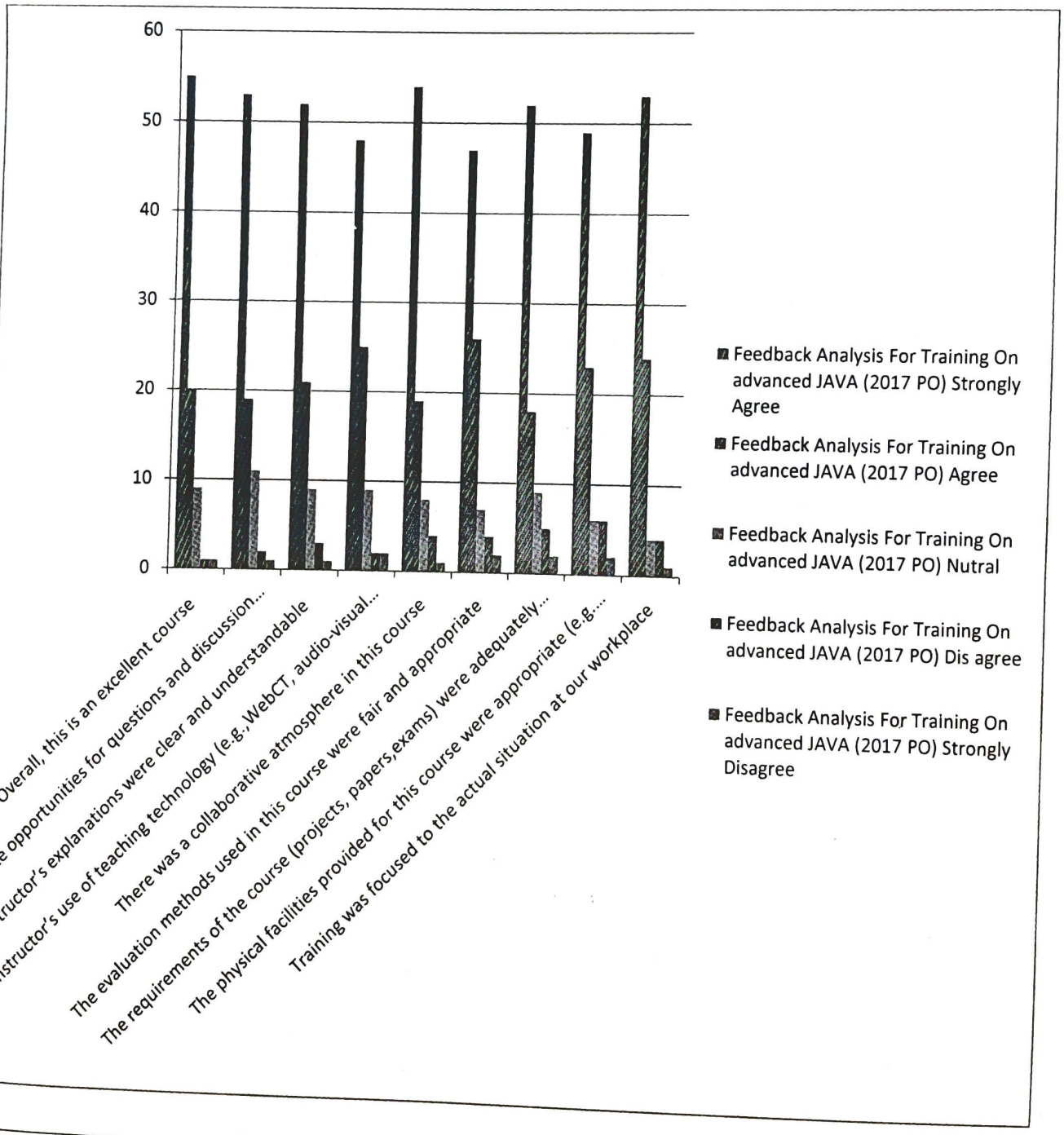
Venue: SIT, Programming Lab I/ SIT, Programming Lab II/OT&UML Lab

Summary of the program:

The following points can be noted from the program.

- ❖ At the beginning of the training trainer has clearly described the basic Introduction to, OOPs programming and java its application in industries in different areas with the students.
- ❖ Students had done many programming by themselves during the trainings.
- ❖ During the training some students raised their queries and the trainer had explained all the quarries of the students.
- ❖ At the end of the training an online exam was conducted.
- ❖ As per the feedback received from the students end, the entire session was really fruitful
- ❖ and enjoyable and the students have learned many things about Java

Feedback analysis for the training:



SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Brief report of Training Program on ”5 Days Value Added Technical Training”

Bootstrap is a free front-end framework for faster and easier web development. Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins. Bootstrap also gives you the ability to easily create responsive designs This Course will reduce the gap between the college and the industry; this will provide the essential knowledge and skill to work with confident. The students would be trained with qualitative skill, employment oriented dexterity, quantitative aptitude, soft skills and others required for their employment.

Objective of the training program: Students will be explored to understand the basic areas and applications of HTML, Java Script, and BOOSTRAP. They also acquire the skills to develop web page and the formation of different tools in internet using some programming knowledge.

Outcome of the training program:

- Able to exhibit knowledge to understand the preliminary concept about HTML, JAVA SCRIPT & BOOSTRAP
- Able to design web page and creation of different multimedia tolls using HTML, JAVA SCRIPT

The program details are as below:

Title of program: **5 Days Value Added Technical Training**

Resource Organization: Webel

Name of Resource Person: Barun Mandal

Date: 23.09.2016-28.09.2016

Time: 10.00 am-5 pm.

Venue: APJ Abdul Kalam Seminar Hall/Smart Class Room, Department of Electrical Engineering, SIT

Summary of the Program:

- In the very fast 1st session trainers have clearly demonstrated the need of the knowledge of HTML, JAVA SCRIPT, soft-skills and industry interactions in their professional career.
- In the next part of session some fruitful procedures for the programming knowledge in JAVA and HTML language has been discussed. In this session students shall be entitled to develop some common generalized procedures for the coding analysis.
- From the next part of the session instructor provided some assignments on the proposed problems. Students are advised to solve the problems and they may make a group for such interactive discussion.

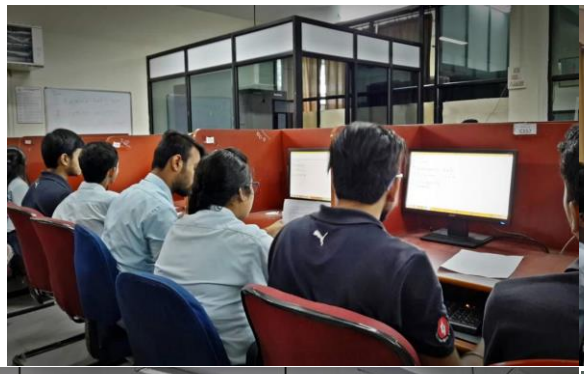
- In the later part of the program some suitable techniques on the aspect of webpage design has been discussed using various multimedia tools. This has been a wonderful session among the students where they found some positive interests for designing of various websites and associated activities using the application of HTML and JAVASCRIPT.
- During the interactive session some students raised their queries and they motivated to arrange some group discussions/industry awareness/grooming sessions among themselves. Bright students are entitled to help the weak students in this case for establishing a team-work and ethics.
- All the students are entitled to prepare a brief report on the training program at the end training.
- The attendance record of the students throughout the session was satisfactory. However sincere students attended the program.
- As per the feedback received from the students end, the entire session was really fruitful and enjoyable and this kind of training program may be for longer period in future for such better output.
- In the concluding part trainers thanked all the students for their patience hearing and gave his contact no. and email id for future correspondence.
- *The program continued with 58 students from 2nd year of Electrical Engineering Department.*

H.O.D **Coordinator**

Department of Electrical Engineering **T & P Sub-Committee**

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Some Glimpses of the Training Program



SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
TRAINING ON HTML, Java script, CSS, Bootstrap FROM PCS GLOBAL
23/9/16 - 24/9/16 & 26/9/16 - 28/9/16

Sl. No.	Class Roll No	Name	23-09-16		24-09-16		26-09-16		27-09-16		28-09-16	
			1st Half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half
1	11901615001	AISHIKA NANDY										
2	11901615002	AMARTYA SUR										
3	11901615003	AMIT MONDAL										
4	11901615004	ANJUM IQBAL										
5	11901615005	ANKITA CHAKRABORTY										
6	11901615006	ANUPAMA PRASAD										
7	11901615007	ANWESHA KAR										
8	11901615008	ANWESHA MAITRA										
9	11901615009	APARUPA DEY										
10	11901615010	ARCHISHMAN DAS										
11	11901615011	ARPITA SARKAR										
12	11901615012	ARUNIMA BHATTACHARYYA										
13	11901615013	ARUNIMA PAUL										
14	11901615014	BARNAMOY CHOWDHURY										
15	11901615015	CHANDRIKA MUKHOPADHYAYA										
16	11901615016	DEBARATI PAL										
17	11901615017	DEBJYOTI DEY										
18	11901615018	DEBOPAM KUMAR ROY										
19	11901615019	DEEPJYOTI ROY										
20	11901615020	DIPAYAN KAR										
21	11901615021	EATHENA DUTTA										
22	11901615022	HRITWIKA ROY										
23	11901615023	INDRAJIT BASAK										
24	11901615024	ISHITA BARMAN										
25	11901615025	JALIMA KHATUN										
26	11901615026	JAYSHANKHA PAL CHOWDHURY										

	11901615027	JOYRUP SINGH												
	11901615028	JYOTIRMOY MAHATO												
	11901615029	KISHOR KUMAR THAKUR												
	11901615030	KUNDAN KUMAR												
	11901615031	KUNZANG GYAMTSHO DUKPA												
	11901615032	LEE YANG FUNG												
33	11901615033	MD MINHAZ ALAM												
34	11901615034	MD. SAHARUK												
35	11901615035	MD.WAIJ ALI												
36	11901615036	MITHLESH KUMAR												
37	11901615037	MITHUN KUMAR												
38	11901615038	PRANOY THAPA												
39	11901615039	PRAYAG TAMANG												
40	11901615040	PRITAMBAR MONDAL												
41	11901615041	PROJOY ROY												
42	11901615042	RAJDEEP BARMAN												
43	11901615043	RAJDEEP MALAKAR												
44	11901615044	RAKESH MONDAL												
45	11901615045	REBATI RAY												
46	11901615046	RIJU MANDAL												
47	11901615047	ROJIKA DARNAL												
48	11901615048	SABYASACHI MUKHERJEE												
49	11901615049	SAIKAT SARKAR												
50	11901615050	SAMIR RAJAK												
51	11901615051	SHAHID ANSARI												
52	11901615052	SHUBHAM KUMAR												
53	11901615053	SIBANSU GHOSH												
54	11901615054	SIDDHARTH RAI												
55	11901615055	SNIGDHA CHAKRABORTY												
56	11901615056	SNIGHDHA DAS												
57	11901615057	SOMRAJ ROY												
58	11901615058	SONIA PAUL												
59	11901615059	SOURAV DEBNATH												

	1615060	SOURAV DUTTA											
	11901615061	SOYEL PERVES	—	—									
	11901615062	SUBAN ROY	S. ROY	S. ROY	S. ROY	S. ROY	—	—	S. ROY	S. ROY			
63	11901615063	SUBHAJIT DAS											
64	11901615064	SUBHAM DAS	—	—									
65	11901615065	SUBHAMAY BANIK	—	—									
66	11901615066	SUBHOBRATA PANJA											
67	11901615067	SUMAN KUMAR											
68	11901615068	SUSMITA GUHA SARKAR											
69	11901615069	WAQAR AHMED											
70		MAINAK BISWAS											
71		NEHAL SHARMA											
72		SRIJOY HORE											
73		ARUP SARKAR											
74		BHASKAR ROY											
75		SHARMISTHA KARJEE											
76		SOURAV DUTTA											
77		SUMAN ROY											
78		SUBHAM BHOWAL											
79		SUMANTA SINHA											
80		RESMA GIRI											
81		RAKESH GURUNG											
Total students													

	...kumar	- 6 mins late
	Fathema Dutta	- 10 min late
3.	Amartya Sen	- 10 min. late
4.	Shahid Ansari	- 15 min late
5.	Kundan Kumar	- 15 min late.
6.	Jyotirmoy Mahato	15 min late.
7.	Soyel Perves	16 min late.
8.	Debjyoti Dey	15 min late.
9.	Sharmistha Karjee	- 17 min late
10)	Sourav Datta.	- 17 min late
11)	Rajdeep Barman	- 18 min late.
12)	Rajka Daswal	- 18 min Late
13)	Pranoy Thapa	- 9:50
14)	Prayag Tamang	- 9:50
15)	Bhaskar Roy	- 9:50
16)	Mainak Biswas	- 9:50
17)	Banamoy Chowdhury	- 9:57
18.)	Anupama Prasad	- 9:57.

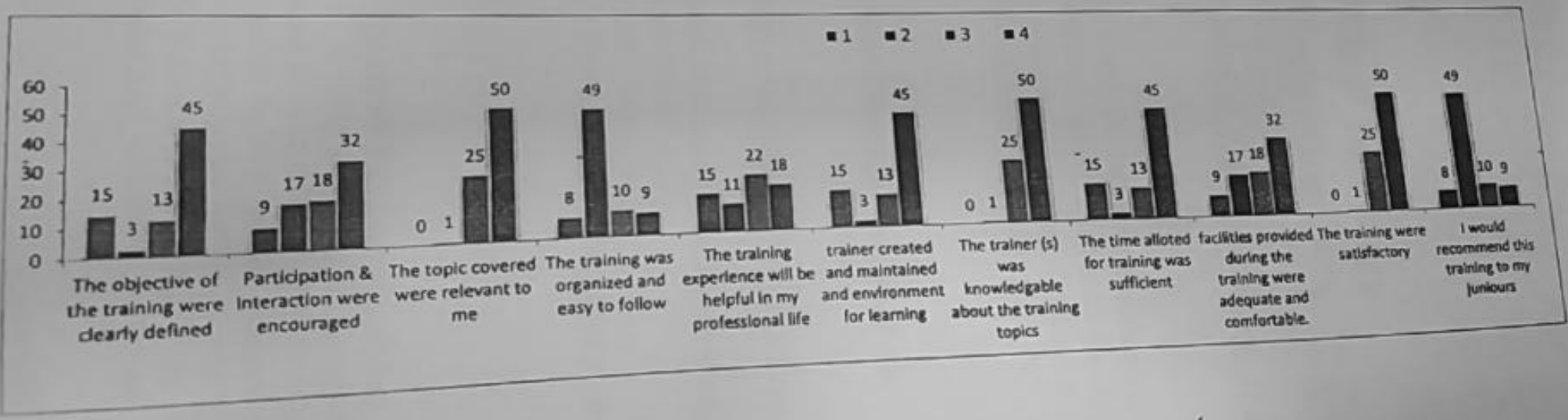
Late comers in the training by pes glo... 29/...

	Time	
...ghdha Das	10:04 am	late
Sourav Debnath	10:05am	late
Debopam Kumar Roy	10:20 am	late
Suban Roy	10:10 am	late

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
Feedback analysis of Technical training on HTML, JAVA Script, CSS, Bootstrap
Duration: 23/9/16 to 24/9/16 and 26/9/16 to 28/9/16
2nd year EE students

Training Organized by: The Department of Electrical Engineering, S.I.T

Sl.no	Name of the trainer: PCS Global	Ratings(1 being lower & 4 being highest rating)				Total No. of Respondents : 76			
1	Feedback elements	1	2	3	4	% of rating 1	% of rating 2	% of rating 3	% of rating 4
2	The objective of the training were clearly defined	15	3	13	45	19.74	3.95	17.11	59.21
3	Participation & interaction were encouraged	9	17	18	32	11.84	22.37	23.68	42.11
4	The topic covered were relevant to me	0	1	25	50	0.00	1.32	32.89	65.79
5	The training was organized and easy to follow	8	49	10	9	10.53	64.47	13.16	11.84
6	The training experience will be helpful in my professional life	15	11	22	18	19.74	14.47	28.95	23.68
7	trainer created and maintained and environment for learning	15	3	13	45	19.74	3.95	17.11	59.21
8	The trainer (s) was knowledgable about the training topics	0	1	25	50	0.00	1.32	32.89	65.79
9	The time alloted for training was sufficient	15	3	13	45	19.74	3.95	17.11	59.21
10	facilities provided during the training were adequate and comfortable.	9	17	18	32	11.84	22.37	23.68	42.11
11	The training were satisfactory	0	1	25	50	0.00	1.32	32.89	65.79
	I would recommend this training to my juniours	8	49	10	9	10.53	64.47	13.16	11.84



Jayanta Bhusan Basu
Head of the Department
Department of Electrical Engineering
Siliguri Institute of Technology

SILIGURI INSTITUTE OF TECHNOLOGY

Training Report on soft skills & life skills duration 16/8/2016 to 26/9/2016 for 4th Year 2017 Pass Out Batch

INTRODUCTION :

Soft Skills are the set of skills that a person should possess in order to face life's daily challenges successfully and to positively adapt to it. This would build the self confidence in an individual to handle life challenges in a more effective manner. In order to visualize a clearer picture on soft skills, let us now look at some more definitions,

1. Soft skills are the behaviors and characteristics that people demonstrate unconsciously and routinely (Daytona Beach Community College)

2. For success in the workplace, the contribution of soft skills are 85% and contribution of technical skills are 15%

3. Soft skills are learned through practice and experience (DDI International)

4. Soft skills will take you higher in your profession while giving you the technical skills to provide an efficient service

This module will introduce several important soft skills that are vital to overcome challenges in life Discuss the importance of soft skills with the participants. Arrange their ideas in an orderly manner.

TRAINING OBJECTIVES

The participants shall be able to achieve the following objectives at the end of this training

- To build and maintain interpersonal relationships.
- To make meaningful/appropriate decisions
- Efficient Communication
- To influence the professional development
- For effective, efficient and higher performance

Soft Skills Training sessions covered :

• Understand General Expectations from Corporate standpoint • Corporate attire

• Introduction during the interview process

• Mock Interviews

• An overview to communication in the interview process

• Communicate effectively with recruiters

Methodology

• Experiential Learning

• Ample use of role plays

• Share real life examples, share their experiences and also facilitate discussions to address Students' queries.

Training Details:

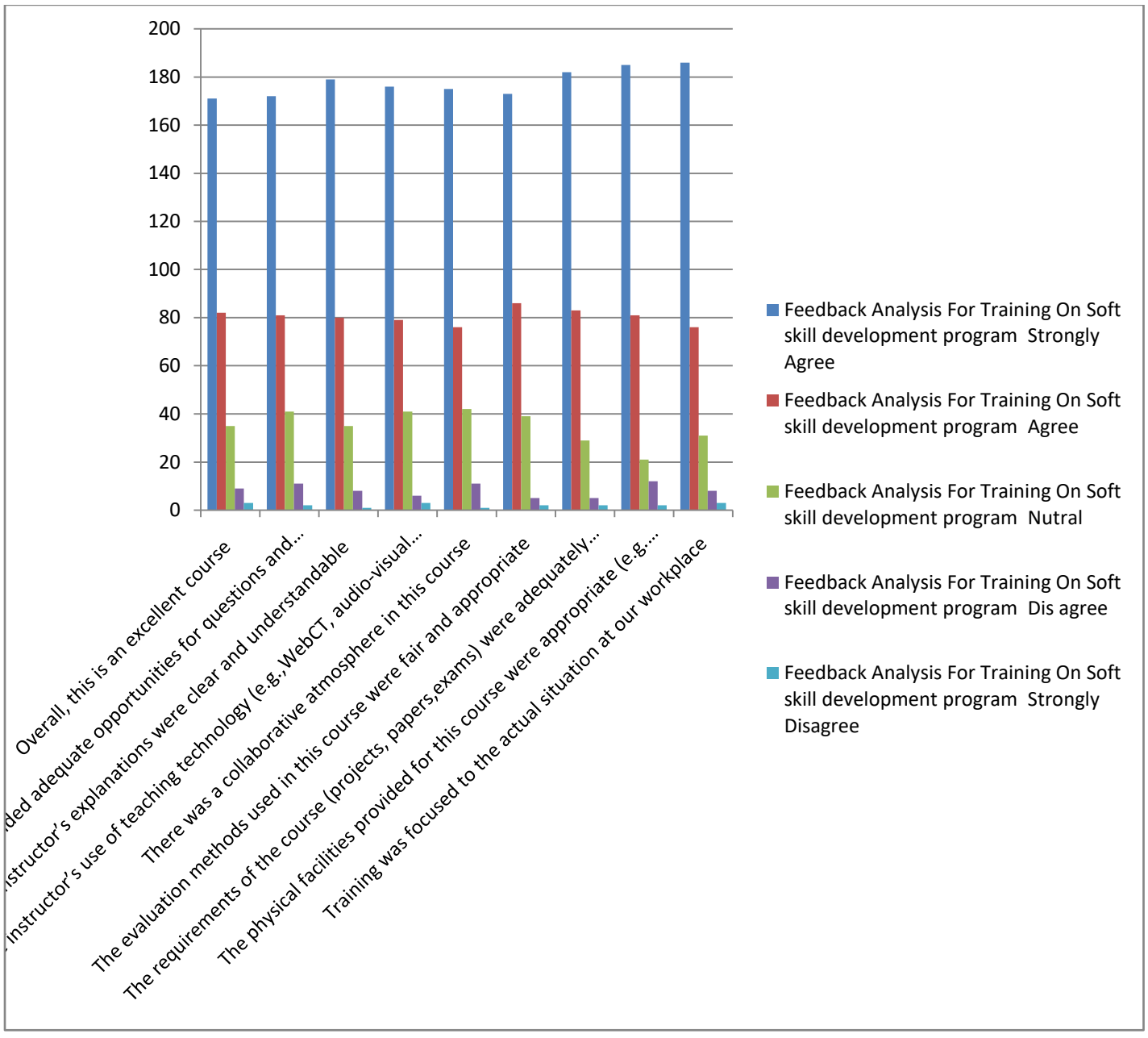
Title of Training: soft skills & life skills

Resource Organization/ Name of Trainer: Vista Mind

Date: 16/8/2016 to 26/9/2016

Venue: SIT Campus

Feedback Analysis of the Training on Soft skill :



SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

Brief Report on "Finishing School Program (FSP)"from 16/08/2016 to 26/08/2016 for 2017 pass out Electrical Engineering students.

FSP program is conducted for the overall aptitude and personality development for the student required to appear for any interview which also impart also addition of value for the students.An aptitude test is a systematic means of testing a job candidate's abilities to perform specific tasks and react to a range of different situations. The tests each have a standardized method of administration and scoring, with the results quantified and compared with all other test takers. FSP will reduce the gap between the college and the industry; this will provide the essential knowledge and skill to work with confident. The students understand the industrial needs and expectations to face the interview confidently and secure the suitable position. Soft skills include: attitude, communication skills, time management, critical thinking and a slew of other categories that do not relate to intelligence. The students would be trained with qualitative skill, employment oriented dexterity, quantitative aptitude, soft skills and others required for their employment.

Objective of the training: Students will be explored to enhance business communication and interpersonal skills. They also acquire the skills to solve the aptitude questions for any recruitment drive in a structured manner.

.Outcome of the program:

Students will be able to:

- Able to exhibit knowledge, skills and attitude required to deliver organizational goals.
- Able to recognize basic needs of Human Resource Management in a modern corporate world.
- Gain skills on solving different aptitude questions based on standard campus recruitment drive.

The program details are as below:

Title of training: Finishing School Program (F.S.P)

Resource Organization: Vista Mind

Date :16/08/2016 to 26/08/2016

Venue: Department of Electrical Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- In the very fast 1st session trainers have clearly demonstrated the need of skill of solving aptitude questions quickly, soft-skills, personality development, group discussions and industry interactions in their professional career.
- 1st half of every training day was conducted by Mr. Amit Kumar Dhar and he was engaging the students by teaching and practicing the quick solving ways of any aptitude problems.Mr. Dhar discussed suitable techniques for solving aptitude questions comprises of quantitative aptitude, logical, verbal and non-verbal reasoning .
- The students became very much interested and learn from the training.
- 2nd half of every training day was conducted by Mr. Devanjan Sarkar. In this session some fruitful procedures for the overall grooming had been discussed. By taking students on a journey

through choosing the right job into understanding the mind of the recruiter to make it there while building competence in elements like resume building, cover letters, email etiquette, interviews and follow-ups.

- Some course materials for placement aptitude papers have been given to the students for solving within the prescribed time limit and some easy and quick method was provided to the students.
- During the interactive session some students raised their queries and they motivated to arrange some group discussions/industry awareness/grooming sessions among themselves. Bright students are entitled to help the weak students in this case for establishing a team-work and ethics.
- In the concluding part trainers thanked all the students for their patience hearing .
- The program continued with about total 374 students from all Departments.
- As per the feedback received from the students end the industrial training was fruitful and highly appreciable for the students and the instructor has demonstrated all the necessary topics in a healthy manner.

.....

H.O.D
Department ofElectricalEngineering

.....

Jt- coordinators
Training and Placement subcommittee,
Department ofElectricalEngineering

SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

Brief Report on "Finishing School Program (FSP)"from 16/08/2016 to 26/08/2016 for 2017 pass out Electrical Engineering students.

FSP program is conducted for the overall aptitude and personality development for the student required to appear for any interview which also impart also addition of value for the students.An aptitude test is a systematic means of testing a job candidate's abilities to perform specific tasks and react to a range of different situations. The tests each have a standardized method of administration and scoring, with the results quantified and compared with all other test takers. FSP will reduce the gap between the college and the industry; this will provide the essential knowledge and skill to work with confident. The students understand the industrial needs and expectations to face the interview confidently and secure the suitable position. Soft skills include: attitude, communication skills, time management, critical thinking and a slew of other categories that do not relate to intelligence. The students would be trained with qualitative skill, employment oriented dexterity, quantitative aptitude, soft skills and others required for their employment.

Objective of the training: Students will be explored to enhance business communication and interpersonal skills. They also acquire the skills to solve the aptitude questions for any recruitment drive in a structured manner.

.Outcome of the program:

Students will be able to:

- Able to exhibit knowledge, skills and attitude required to deliver organizational goals.
- Able to recognize basic needs of Human Resource Management in a modern corporate world.
- Gain skills on solving different aptitude questions based on standard campus recruitment drive.

The program details are as below:

Title of training: Finishing School Program (F.S.P)

Resource Organization: Vista Mind

Date :16/08/2016 to 26/08/2016

Venue: Department of Electrical Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- In the very fast 1st session trainers have clearly demonstrated the need of skill of solving aptitude questions quickly, soft-skills, personality development, group discussions and industry interactions in their professional career.
- 1st half of every training day was conducted by Mr. Amit Kumar Dhar and he was engaging the students by teaching and practicing the quick solving ways of any aptitude problems.Mr. Dhar discussed suitable techniques for solving aptitude questions comprises of quantitative aptitude, logical, verbal and non-verbal reasoning .
- The students became very much interested and learn from the training.
- 2nd half of every training day was conducted by Mr. Devanjan Sarkar. In this session some fruitful procedures for the overall grooming had been discussed. By taking students on a journey

Scanned by CamScanner

through choosing the right job into understanding the mind of the recruiter to make it there while building competence in elements like resume building, cover letters, email etiquette, interviews and follow-ups.

- Some course materials for placement aptitude papers have been given to the students for solving within the prescribed time limit and some easy and quick method was provided to the students.
- During the interactive session some students raised their queries and they motivated to arrange some group discussions/industry awareness/grooming sessions among themselves. Bright students are entitled to help the weak students in this case for establishing a team-work and ethics.
- In the concluding part trainers thanked all the students for their patience hearing .
- The program continued with about total 374 students from all Departments.
- As per the feedback received from the students end the industrial training was fruitful and highly appreciable for the students and the instructor has demonstrated all the necessary topics in a healthy manner.

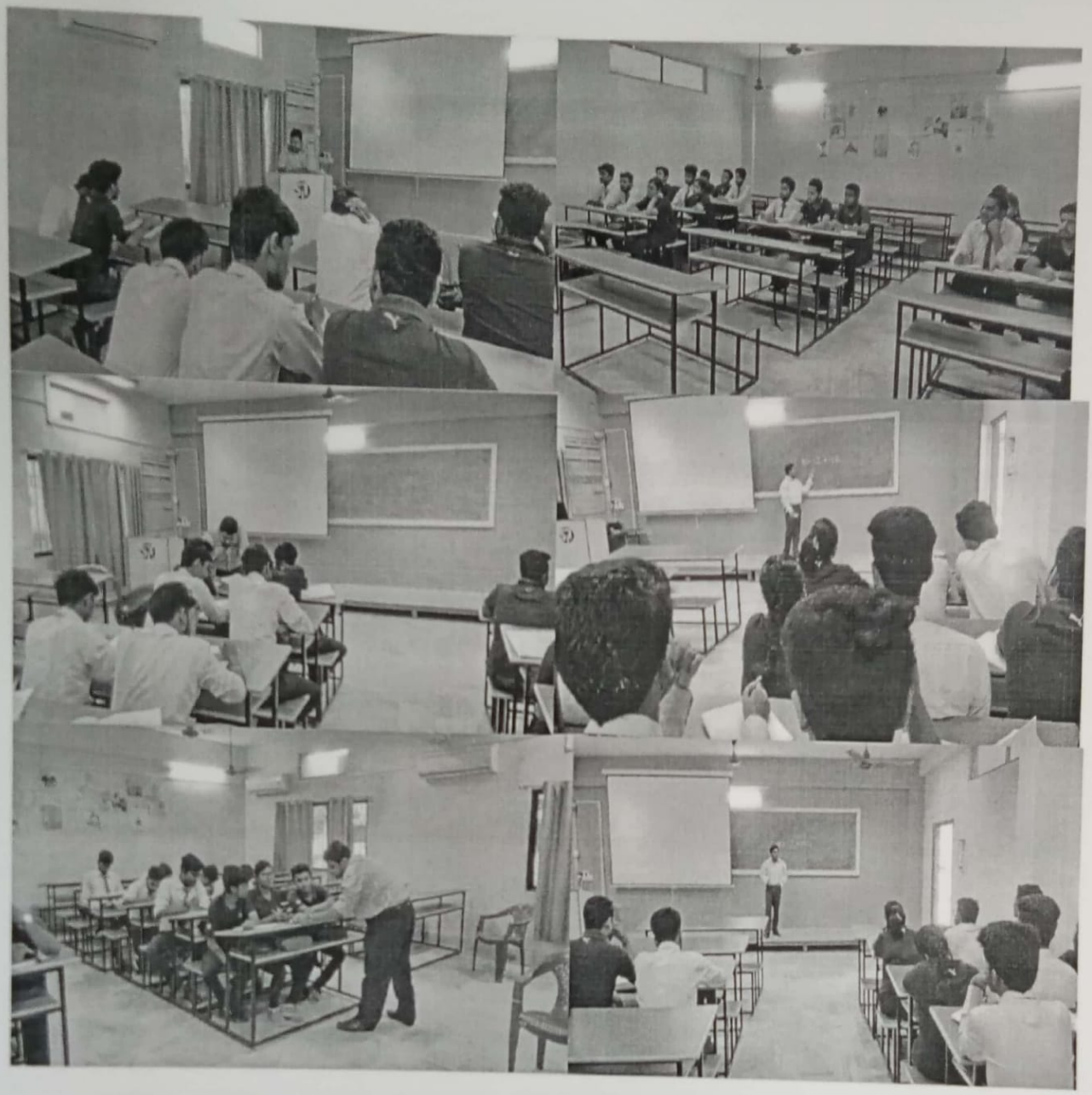
.....
H.O.D
Department ofElectricalEngineering

.....
Jt- coordinators
Training and Placement subcommittee,
Department ofElectricalEngineering

Scanned by CamScanner

SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

Some Glimpses during FSP



VISION OF THE DEPARTMENT:

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:

To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

Scanned by CamScanner

EE 7th Sem Grp-A.

no.	Roll Number	Name	Stream	16/08	17/08	18/08	19/08	20/08	22/08	23/08	26/08
1	11901613001	AAMIR ALI	EE	✓	✓	All adjst					
2	11901613002	ABHINANDAN MISHRA	EE	✗	✓		✓				
3	11901613003	ABHISEK BHATTACHARJEE	EE	✓	✓		✓				
4	11901613004	ABHISHEK PODDER	EE	✓	✓						
5	11901613005	ADRIJAA PODDAR	EE	✓	✓						
6	11901613006	AKASH CHAKRAVORTY	EE	✓	✓						
7	11901613007	AKASH KIRODIWAL	EE	✓	✓						
8	11901613008	AKASH KUMAR	EE	✗	✓						
9	11901613009	AKASHNEEL CHAKRABORTY	EE	✗							
10	11901613010	AMIT KUMAR	EE	✓			✓				
11	11901613011	ANAAB	EE	✗	✓						
12	11901613012	ANAND MOHAN	EE	✗							
13	11901613013	ANGSHU PRONIT MAHANTA	EE	✓	✓						
14	11901613014	ANINDYA KUMAR DAS	EE	✓							
15	11901613015	ARIJIT BOSE	EE	✗							
16	11901613016	ARNAB BHATTACHARJEE	EE	✓	✓						
17	11901613017	ASHISH KUMAR	EE	✗							
18	11901613018	ASHUTOSH KUMAR	EE	✗							
19	11901613019	AVIK ADHIKARY	EE	✗							
20	11901613020	AVISMIT DUTTA	EE	✓	✓		✓				
21	11901613021	AYANDEEP CHATTERJEE	EE	✗							
22	11901613022	BIJAN ROY	EE	✗	✓						
23	11901613023	BITHIKA DAS	EE	✓	✓		✓	✓			
24	11901613024	DEBANGAN SAHA	EE	✓	✓		✓				
25	11901613025	DEBARGHA CHATTERJEE	EE	✓	✓						
26	11901613026	DEBRAJ DUTTA	EE	✓	✓						
27	11901613027	DEEP DEBNATH	EE	✓	✓		✓				
28	11901613028	EHSAN ANJUM	EE	✗							
29	11901613029	GOURAB CHANGDER	EE	✗							
30	11901613030	IMTEAZ AHMED	EE	✗							
31	11901613031	INDRANIL NANDI	EE	✗			✓				
32	11901613032	KABI NUNIA	EE	✓	✓		✓		✓		
33	11901613033	KABITA GUPTA	EE	✓	✓				✓		
34	11901613034	KASIF HUSSAIN	EE	✓	✓						
35	11901613035	KISHLAY KUMAR	EE	✗							

Training & Placem
Siliguri Institute of Tec

				16/9	17/9	18/9	19/9	20/09	21/09	22/09	23/09		
36	11901613036	KRISHNA VISHWAKARMA	EE	✗									
37	11901613037	KUMAR KUNAL VERMA	EE	✗									
38	11901613038	KUMAR SHUBHAM	EE	✓	✓				✓				
39	11901613039	MAITRI MOKTAN	EE	✗	✓		✓	✓					
40	11901613040	MANJIT RAVIDAS	EE	✓	✓		✓						
41	11901613042	MD UNUS SALIM	EE	✓	✓		✓		✓				
42	11901613043	MOHANA SARKAR	EE	✗			✓						
43	11901613044	MRINMOY GHOSH	EE	✗									
44	11901613045	MUKESH KUMAR NONIA	EE	✗	✓								
45	11901613046	NEELU KUMARI	EE	✓	✓		✓	✓	✓	✗	✓		
46	11901613047	NEHA BHOWMICK	EE	✓	✓								
47	11901613048	NILANJAN SAHA	EE	✓	✓								
48	11901613049	NILESH KUMAR	EE	✓	✓								
49	11901613050	NITIN KUMAR	EE	✗									
50	11901613051	PINANKUR BHADRA	EE	✗									
51	11901613052	PRAWEEN KUMAR	EE	✗									
52	11901613053	PRINCE PANKAJ	EE	✗									
53	11901613054	PUJA DAS	EE	✓									

Training & Placement
Siliguri Institute of Technology

11900313055
11900313056
11900313057

EE 7th sem Grp-B.

				16/08	17/8	18/8	19/8	20/08	22/08	23/08			
54	11901613055	RAHUL GHOSH											
55	11901613056	RAHUL KARMAKAR	EE	X			✓ ✓						
56	11901613057	RAHUL SHAW	EE	✓	✓								
57	11901613058	RAJESH MONDAL	EE	X									
58	11901613059	RAJNISH KUMAR	EE	X	✓								
59	11901613061	SAIKAT KUNDU	EE	X									
60	11901613062	SAMEER RAJ	EE	X	✓								
61	11901613063	SAMIR TIKHATRI	EE	X	✓								
62	11901613064	SAMRAGGI GHOSH	EE	X									
63	11901613065	SANDIPON ROY	EE	✓	✓		✓						
64	11901613066	SANJEEW NARAYAN	EE	X			✓	✓					
65	11901613067	SANKET SAHA	EE	X	X								
66	11901613068	SAPTARSHI MONDAL	EE	✓									
67	11901613069	SHAIBAL KANTA	EE	X									
68	11901613070	SHANKAR BANERJEE	EE	X									
69	11901613071	SHANU KUMAR	EE	X	✓								
70	11901613072	SHIVAM KUMAR	EE	✓		✓	✓						
71	11901613073	SHUBHAM KUMAR GUPTA	EE	✓	✓								
72	11901613074	SIBARJUN DHAR	EE	✓	✓								
73	11901613075	SOHAM SATPATI	EE	X									
74	11901613076	SOMNATH CHAKRABORTY	EE	X									
75	11901613077	SOUMALYA HOM ROY	EE	✓	✓	✓	✓						
76	11901613078	SOUMYENDU CHOWDHUR	EE	✓	✓								
77	11901613079	SOURAMITA KHAN	EE	X									
78	11901613080	SOURAV GHOSH	EE	✓	✓								
79	11901613081	SUBHAJIT SAHIS	EE	X									
80	11901613082	SUBHAM KUMAR ROY	EE	X									
81	11901613083	SUBHANKAR CHOWDHURY	EE	X									
82	11901613084	SUDIPTO MAJI	EE	✓	✓								
83	11901613085	SUMAN CHABRI	EE	X				✓					
84	11901613086	SUPRIYA GORAI	EE	X			✓						
85	11901613087	SUSHMITA SEN	EE	X									
86	11901613088	SUVAYU DAS	EE	✓	✓								
87	11901613089	SWARUP MONDAL	EE	X	✓								
88	11901613090	SWASTI ARYA	EE	X					✓ ✓				
89	11901613091	TANMOY SHIL SHARMA	EE	X	✓								

Training & Placement
Siliguri Institute of Technology

				16/09	17/09	18/09	19/09	20/09	21/09	22/09	23/09		
	11901613093	VIJAY SARKAR	EE	X									
2	11901613094	VIKRAM KUMAR	EE	✓	✓								
3	11901613095	VIVEK KUMAR DUTTA	EE	X	✓								
4	11901613096	VIVEK RAJ	EE	X									
95	11901613097	VIVEK RAJ	EE	X									
96	11901614055	AVINAY KUMAR CHAUDHA	EE	X									
97	11901614056	GOURAV BARUA	EE	X				✓					
98	11901614057	JOYDEEP SARBADHIKARY	EE	X							✓		
99	11901614058	PRERNA BHADRA	EE	✓	✓			✓	✓		✓		
100	11901614059	SANJEEB BALA	EE	X					✓				
101	11901614060	SANKHA SUBHRA NANDY	EE	X									
102	11901614061	SHAHIDA ASHRAFI	EE	X									
103	11901614062	SHRAMONA BANERJEE	EE	✓									
104	11901614063	SUBHADIP SARKAR	EE	X									
105	11901614064	SWAPRAVA JHAMPATI	EE	X									

Training & Placement
Siliguri Institute of Technology

2018 PO

(7)

Training attendance 5th sem,2016. EE

o.	Roll	Name	1.8.16	2.8.16	3.8.16	4.8.16	5.8.16	6.8.16	7.8.16	8.8.16	9.8.16	10.8.16	11.8.16
	11901614001	ABHIJIT DAS	A	A	P	P	F						
	11901614002	ABHIJIT DUTTA	A	A	P	P	P						
	11901614003	ABHISHEK KUMAR	A	A	A	A	A						
	11901614004	ABHISHEK KUMAR DAS	A	P	P	P	P						
5	11901614005	AHINDRA NARAYAN CHOWDHURY	P	P	P	P	P						
6	11901614006	ANKITA SAHA	A	P	P	P	P						
7	11901614007	ANKOOR SINGH	P	P	P	P	P						
8	11901614008	ANUPAM DATTA	A	A	A	A	A						
9	11901614009	ARKAJIT FOUZDER	A	P	P	P	P						
10	11901614010	ASHA KUMARI	A	P	P	P	P						
11	11901614011	ASHIM SARKAR	A	A	P	P	P						
12	11901614012	AVIMANYU KUMAR TANTI	P	P	P	P	P						
13	11901614013	AVIRUPA DUTTA	A	P	P	P	P						
14	11901614014	DEBAJIT KARMAKAR	A	A	A	A	A						
15	11901614015	DEBARPAN ROY	A	A	P	P	P						
16	11901614016	DEBARSHI CHAKRABORTY	A	A	P	P	P						
17	11901614017	DIPANJAN KARMAKAR	A	A	A	A	A						
18	11901614018	DURGESH KUMAR	A	A	A	P	P						
19	11901614019	GOURAV GHOSH	P	P	P	A	A						
20	11901614020	HRIDOY BARMAN	A	A	A	A	A						
21	11901614021	KOUSHIK KARMAKAR	A	A	P	P	P						
22	11901614022	KOUSIK BARMAN	A	P	P	P	P						
23	11901614023	MADHUMITA SARKAR	P	P	P	P	F						
24	11901614024	MAINAK DE	A	A	P	P	P						

Training attendance 5th sem,2016.

Roll	Name	1.8.16	2.8.16	3.8.16	4.8.16	5.8.16	6.8.16	7.8.16	8.8.16	9.8.16	10.8.16	11.8.16	12.8.16
11901614025	MD ARIF EQUBAL	A	A	A	A	P							
11901614026	NIKHIL RAJ	A	A	A	A	P							
11901614027	PEMBA BHUTIA	P	P	P	P	P							
11901614028	PRITAM ROY	P	P	P	P	P							
11901614029	PRIYANKA DAS	A	P	P	A	P							
11901614030	PURAN SAHA	A	A	A	P	P							
11901614031	RAJA CHOUDHURY	A	P	P	P	P							
11901614032	RIJU NANDI	A	P	P	P	P							
11901614033	RUPAK KUNDU	A	A	A	A	P							
11901614034	SABYASACHI MANDAL	A	A	P	P	P							
11901614035	SAIKAT MITRA	A	A	A	A	A							
11901614036	SANDEEP KUMAR GUPTA	P	P	P	P	P							
11901614037	SANJOY KARMAKAR	A	P	P	P	P							
11901614038	SATARUPA MUKHERJEE	P	P	P	P	P							
11901614039	SAUBIR GHOSH	A	A	A	A	A							
11901614040	SHIVAM KUMAR CHOWDHARY	A	P	P	P	P							
11901614041	SOUMA BRATA GUHA	P	P	P	P	P							
11901614042	SOUMYADEEP BARMAN	A	A	A	A	A							
11901614043	SOUMYADEEP CHANDA	A	A	A	A	A							
11901614044	SOUMYAJYOTI PAUL	P	P	P	P	P							
11901614045	SUBHADEEP MONDAL	A	A	A	A	A							
11901614046	SUBHAM DUTTA	P	P	P	P	P							
11901614047	SUBHAM SAHA	A	A	A	A	A							
11901614048	SUBHAM SARKAR	A	P	P	P	P							

Training & Placement
Sikkim Institute of Technology

Training attendance 5th sem,2016.

no.	Roll	Name	1.8.16	2.8.16	3.8.16	4.8.16	5.8.16	6.8.16	7.8.16	8.8.16	9.8.16	10.8.16	11.8.16	12.8.16
	11901614049	SUCHISMITA ADHIKARY	P	P	P	P	P							
	11901614050	SUDARSHAN BASAK	A	A	A	A	A							
	11901614051	SUMAN KARMAKAR	P	P	P	P	P							
2	11901614052	SUVRAJIT SAHA	A	A	A	A	A							
3	11901614053	TUHIN CHAKRABORTY	A	A	A	A	P							
4	11901614054	VINOD KUMAR JANA	A	A	A	A	A							
5	11901613041 (Y)	MD.IRSHAD ALAM	A	A	A	A	A							
6	151190120024	ABHIJIT KUMAR MANDAL	A	A	A	A	A							
7	151190120025	AKASH ROY	A	A	A	A	A							
8	151190120026	LABANI BARMAN	A	A	A	A	A							
9	151190120027	PURAJIT SARKAR	A	A	A	A	P							
0	151190120028	SANDIPAN NATH	P	P	P	P	P							
1	151190120029	SAYAN DAS	P	P	P	P	P							
2	151190120030	SOURAV GUHA	A	A	A	A	A							
	Total students present:		16	28	36	36	39							
	Signature:													

Training & Placement
Siliguri Institute of Technology

SILIGURI INSTITUTE OF TECHNOLOGY

Report for Training on HTML, Java script, Bootstrap, CSS during 23/09/2016 to 28/09/2016 for 2nd year 2019 pass out batch

Introduction :

Front-end web development, also known as client-side development is the practice of producing HTML, CSS and JavaScript for a website or Web Application so that a user can see and interact with them directly. The challenge associated with front end development is that the tools and techniques used to create the front end of a website change constantly and so the developer needs to constantly be aware of how the field is developing. The objective of designing a site is to ensure that when the users open up the site they see the information in a format that is easy to read and relevant. This is further complicated by the fact that users now use a large variety of devices with varying screen sizes and resolutions thus forcing the designer to take into consideration these aspects when designing the site. They need to ensure that their site comes up correctly in different browsers (cross-browser), different operating systems (cross-platform) and different devices (cross-device), which requires careful planning on the side of the developer.

A front-end developer architects and develops websites and web applications using web technologies (i.e., HTML, CSS, and JavaScript), which typically runs on the Open Web Platform or acts as compilation input for non-web platform environments

A person enters into the field of front-end development by learning to build a website or web application which relies on HTML, CSS, and JavaScript and commonly runs in a web browser but can also run in a headless browser, Web View, or as compilation input for a native runtime environment. These four run times scenarios are explained below.

Objective of Training :

The students the need of developing a theoretically and practically sound curriculum with strong “Web Technology “ concepts and diagnose common HTML and CSS cross browser problems, and use appropriate tools and techniques to fix them.

Hyper Text Markup Language (aka HTML)

HyperText Markup Language, commonly referred to as HTML, is the standard markup language used to create web pages. Web browsers can read HTML files and render them into visible or audible web pages. HTML describes the structure of a website semantically along with cues for presentation, making it a markup language, rather than a programming language.

Cascading Style Sheets (aka CSS)

Cascading Style Sheets (CSS) is a style sheet language used for describing the look and formatting of a document written in a markup language. Although most often used to change the style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG and XUL. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging webpages, user interfaces for web applications, and user interfaces for many mobile applications.

JavaScript :

JavaScript is a high level, dynamic, untyped, and interpreted programming language. It has been standardized in the ECMA Script language specification. Alongside HTML and CSS, it is one of the three essential technologies of World Wide Web content production; the majority of websites employ it and it is supported by all modern web browsers without plug-ins. JavaScript is prototype-based with first-class functions, making it a multi-paradigm language, supporting object-oriented, imperative, and functional programming styles. It has an API for working with text, arrays, dates and regular expressions, but does not include any I/O, such as networking, storage or graphics facilities, relying for these upon the host environment in which it is embedded.

Bootstrap :

- It is a free front-end framework for faster and easier web development.
- It combines HTML, CSS and JS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and numerous other components, as well as JavaScript plugins.
- It provides you with a convenient approach for creating responsive designs.

Applications of Bootstrap

- Scaffolding − Bootstrap provides a basic structure with Grid System, link styles, and background. This is is covered in detail in the section Bootstrap Basic Structure
- CSS − Bootstrap comes with the feature of global CSS settings, fundamental HTML elements styled and enhanced with extensible classes, and an advanced grid system. This is covered in detail in the section Bootstrap with CSS.
- Components − Bootstrap contains over a dozen reusable components built to provide iconography, dropdowns, navigation, alerts, pop-overs, and much more. This is covered in detail in the section Layout Components.
- JavaScript Plugins − Bootstrap contains over a dozen custom jQuery plugins. You can easily include them all, or one by one. This is covered in details in the section Bootstrap Plugins.
- Customize − You can customize Bootstrap's components, LESS variables, and jQuery plugins to get your very own version.

Training Methodology:

- Hands on practice on approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: HTML, Javascript, Bootstrap, CSS

Resource Organization/ Name of Trainer: PCS Global

Date: 23/09/2016 to 24/09/2016 and 26/09/2016 to 28/09/2016

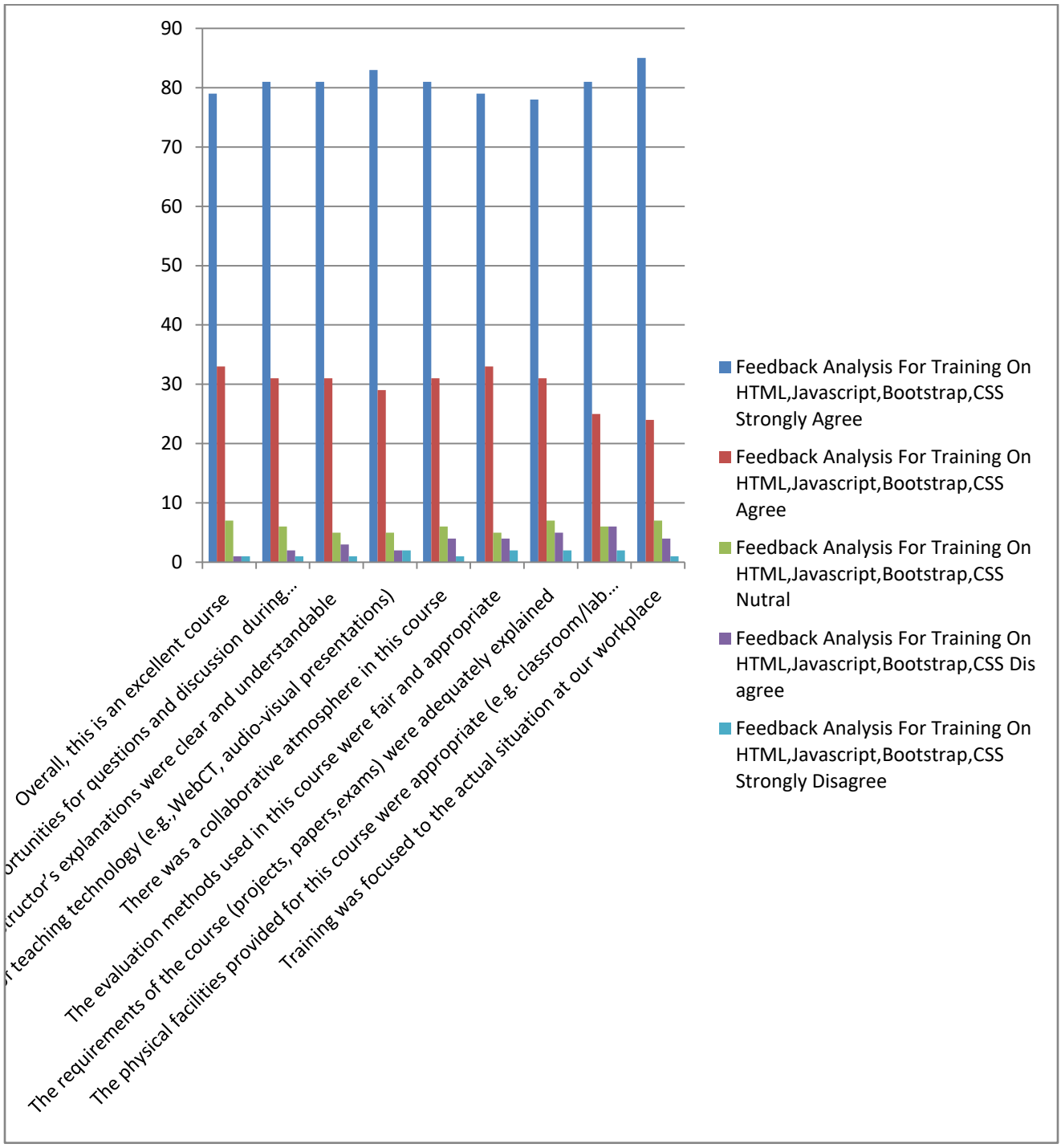
Venue: SIT Programming Lab 1/ SIT Programming Lab II

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction tools of front end designing web technology its application in industries in different areas.
- Students had done many front end designing applications by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned many things about bootstrap web toosl.

Feedback analysis for the training:



(4)

Training on HTML,JavaScript,CSS,Bootstrap

Introduction:

Today's user expects a lot out of the web page: it has to load fast, expose the desired service, and be comfortable to view on all devices: from a desktop computers to tablets and mobile phones.In this course, we will learn the basic tools that every web page coder needs to know. We will start from the ground up by learning how to implement modern web pages with HTML and CSS. We will then advance to learning how to code our pages such that its components rearrange and resize themselves automatically based on the size of the user's screen. We'll be able to code up a web page that will be just as useful on a mobile phone as on a desktop computer. No "pinch and zoom" required! Last but certainly not least, we will get a thorough introduction to the most ubiquitous, popular, and incredibly powerful language of the web: Javascript. Using Javascript, we shall be able to build a fully functional web application that utilizes Ajax to expose server-side functionality and data to the end user.

Objective:

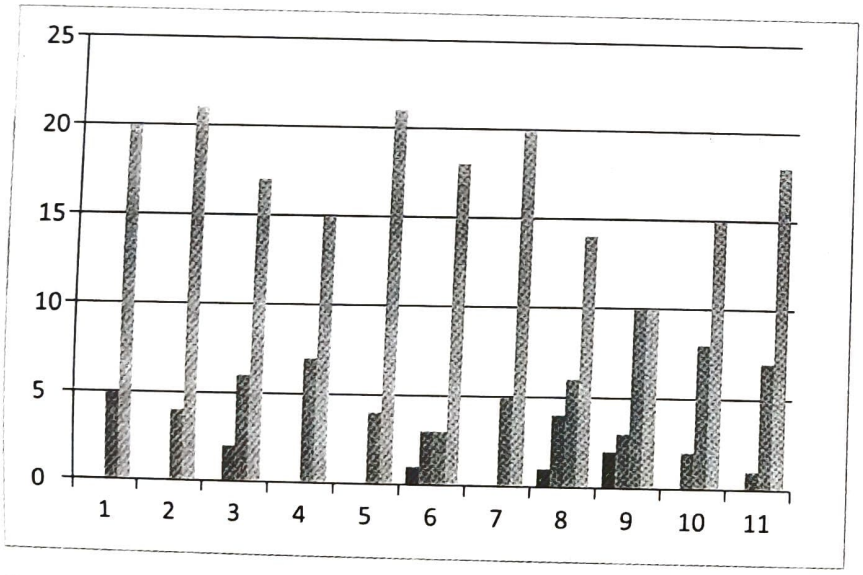
After attending the training, students should be able to understand

1. Learn to build mobile responsive web pages, using the Bootstrap Framework.
2. Learn to work with variables, conditional statements, arrays, and loops in JavaScript.
3. Learn to build stylish forms in Bootstrap with complete JavaScript enabled validation.

Program Details:

Training Program: HTML, JavaScript, CSS, Bootstrap
Resource Organization: PCS Global
Date: 23/09/2016 to 24/09/2016 and 26/09/2016 to 28/09/2016
Students who can attend: B. Tech (ECE) 3rd Sem-2019 PO.

Feedback Analysis



Report of Feedback Analysis:

Feedback for training was taken on 28/09/2016 with the 2nd year students (2019 PO). Analysis of feedback is listed below:

1. Online material should be provided for making clear the concept.
2. Due to problem of internet connection students faced difficulty to do their project work.

2017-18

Brief Report on technical training on "PLC and SCADA automation" from 03.10.2018-06.10.2018 for 5th semester 2020 pass out Electrical Engineering students.

The most used guiding force behind an automated industrial plant is a "programmable logic controller" generally known as a PLC. PLCs along with certain other necessary ingredients like sensors, motors, actuators, valves, conveyors, boilers, SCADA systems, computers & many more, makes a real automated manufacturing plant. A programmable logic controller (PLC) or programmable controller is an industrial digital computer which has been ruggedized and adapted for the control of manufacturing processes, such as assembly lines, or robotic devices, or any activity that requires high reliability control and ease of programming and process fault diagnosis. Supervisory control and data acquisition (SCADA) is a control system architecture that uses computers, networked data communications and graphical user interfaces for high-level process supervisory management, but uses other peripheral devices such as programmable logic controller (PLC) and discrete PID controllers to interface with the process plant or machinery. The operator interfaces which enable monitoring and the issuing of process commands, such as controller set point changes, are handled through the SCADA computer system. However, the real-time control logic or controller calculations are performed by networked modules which connect to the field sensors and actuators. PLCs are used in various applications in industries such as the steel industry, automobile industry, chemical industry and the energy sector. The scope of PLCs dramatically increases based on the development of all the various technologies where it is applied. SCADA Applications in Power System. Supervisory control and data acquisition (SCADA) is an industrial control system which is used in many modern industries like energy, manufacturing, power, water transportation, etc. ... SCADA systems range from simple to large configurations.

The training on PLC & SCADA Automation is organized to make the aspiring engineers acquainted with the conceptual as well as practical knowledge of the Industrial Automation & latest technologies being used to achieve industrial automation. The idea of organizing this training is to inculcate the basic fundamentals of automation in the students and provide them with a platform to work on, in the near future.

Objective of the training: Students will be explored to the conceptual as well as practical knowledge of the Industrial Automation & latest technologies being used to achieve industrial automation. The idea of organizing this training is to inculcate give the basic fundamentals of automation .

.**Outcome of the program:**

Students will be able to:

- understand the basic concept of PLC and SCADA and their uses.
- able to realize the application of PLC and SCADA in industrial automation.
- Gain skills on making projects with the application on PLC and SCADA.

The program details are as below:

Title of training : PLC and SCADA Automation
Resource Organization : I & We
Date :03/10/2018-06/10/2018
Name of Trainer :*Mr. Abhijit Maitra*

Venue ***:*** *Smart class room,* Department of Electrical Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- In the very fast 1st day Mr. Abhijit Maitra has explained the detailed through power point presentation the theoretical concept of Industrial automation, PLC , SCADA and its use in present days in industries along with the concept of Electrical power system.
- On the 2nd day Mr. Maitra gave very good introduction to PLC hardware, General PLC theory and concept, architecture of PLC, PLC components , programming language introduction, introduction of PLC software, SCADA applications. Students listened and learned in the entire session with accuracy.
- The students were instructed to bring their laptops for application or laboratory purpose and during the 3rd and 4th day the trainer taught the students about how to work with PLC and SCADA through software.
- During the interactive session some students raised their queries and they motivated to start some basic projects based on PLC programing.
- The trainer explained all the doubts of the students very clearly and the students were highly inspired throughout the training.
- The attendance record of the students throughout the session was satisfactory.
- The training program was attended by 47 students from 3rd year, Electrical Engineering Department.

…….. ……..

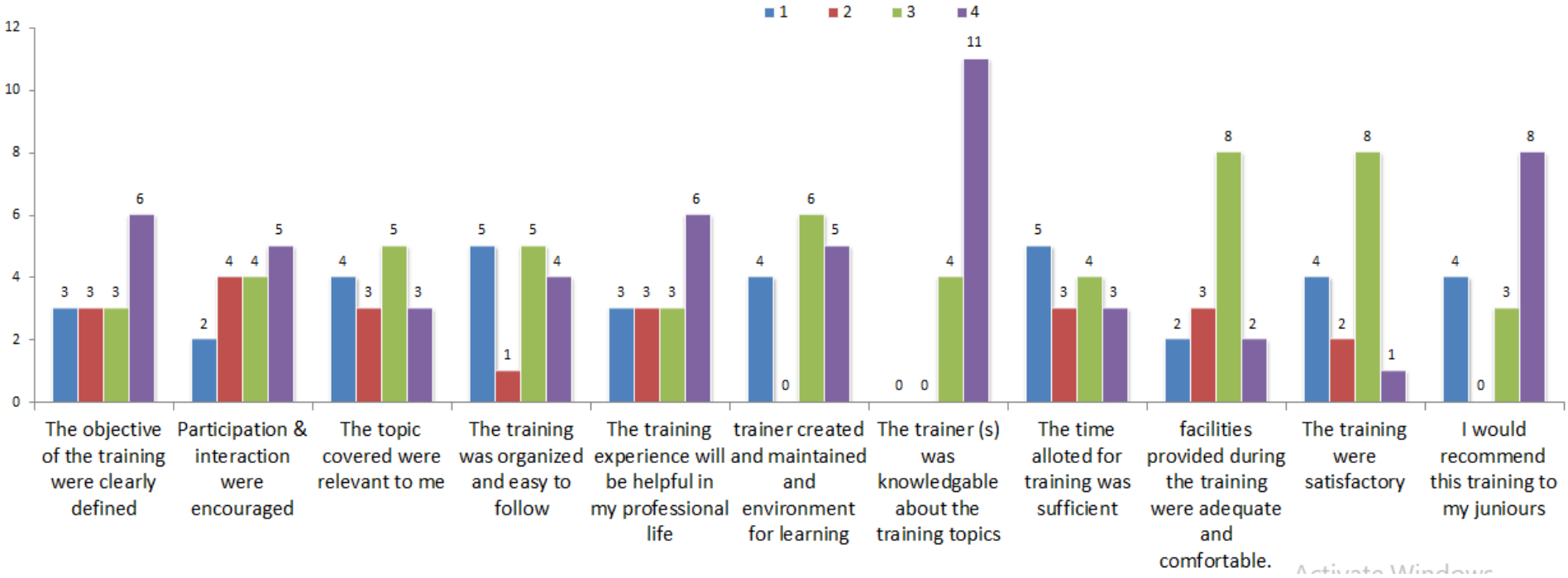
H.O.D **Jt- coordinators**

Department of Electrical Engineering **Training and Placement subcommittee, Department of Electrical Engineering**

SILIGURI INSTITUTE OF TECHNOLOGY

ELECTRICAL ENGINEERING

Feedback analysis for the training:



Some Glimpses of the training

VISION OF THE DEPARTMENT:
To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:
To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Brief report of 60 Hours Technical Training Program on" Energy Management Advanced (Auto-CAD Electrical Design)"

Energy Audit is the key to a systematic approach for decision-making in the area of energy management. It attempts to balance the total energy inputs with its use, and serves to identify all the energy streams in a facility. It quantifies energy usage according to its discrete functions. Industrial energy audit is an effective tool in defining and pursuing comprehensive energy management program. The Energy Audit would give a positive orientation to the energy cost reduction, preventive maintenance and quality control programs which are vital for production and utility activities. Smart energy in buildings is an important research area of Internet of Things (IoT). Buildings as important parts of the smart grids, their energy efficiency is vital for the environment and global sustainability.

Objective of the training program: Students will be explored to the concept of advanced energy management and Auto-CAD based electrical design. They are also able to design & develop IoT based energy monitoring system.

Outcome of the training program:

- Able to understand the need of energy management and audit in different areas
- Design some basic layout of electrical system using Auto-CAD
- Understand the technical aspects of plant and equipment
- Use the energy review to develop this into an Energy Management System
- Use IoT tools for some smart monitoring systems in modern appliances

The program details are as below:

Title of program: Technical Training Program on Energy Management Advanced (Auto-CAD Electrical Design)

Resource Organization: I and We, Kolkata

Date: Phase-I: 18.01.18-20.01.18, Phase-II: 16.04.18-18.04.18, Phase-III: 26.04.18-28.08.18

Time: 10.00 am-5 pm.

Venue: APJ Abdul Kalam Seminar Hall/Smart Class Room, Department of Electrical Engineering, SIT

The entire training program has been conducted in three (03) phases

The following points can be noted from the **Phase-I** program

- At the beginning of the training an introductory and welcome speech has been delivered by Prof. J. B. Basu, Head of the Department, Department of Electrical Engineering, SIT, Siliguri.
- In this phase Auto-CAD based electrical design of different electrical panels have been discussed. In this session design of relays, MCBs, switches, motors have been demonstrated.

- During this session some live industrial projects and its energy audit analysis has been discussed in a brief manner to be familiar with the different topologies of energy management system.

The following points can be noted from the **Phase-II** program

- In this session IoT (Internet of Things) based smart monitoring system for energy management analysis has been discussed. The Internet of Things (IoT) is the network of physical objects or "things" embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data.
- In their session they also discussed the typical programming concept of Arduino based microcontroller and development of flowchart while executing any typical problem analysis.
- During this session utilization of energy and its impact in house hold applications have been established and concept of smart energy meter using IoT tools has been introduced.

The following points can be noted from the **Phase-III** program

- In this session server-client interaction through online chat window has been demonstrated through different coding and analysis. Several communications during the process can be recorded and monitored for data analysis.
- A typical analysis of temperature monitoring and control system using node MCU and ubidots has been discussed.
- Students are highly motivated in this particular application; they formed several groups and started to implement the basic IoT tools in some real-time projects.

Overall Monitoring:

- All the students are entitled to prepare a brief report on the training program at the end training.
- The attendance record of the students throughout the session was satisfactory.
- As per the feedback received from the students end, the interactive session was fruitful and much attractive in modern days perspective and this kind of training program may be for longer period in future for such better output.
- In the concluding part, the trainers thanked all the students for their patience hearing and gave his contact no. and email id in case any students have any query to develop some IoT based real-time projects.

The training program continued with 63 students from 3rd year of Electrical Engineering Department.

H.O.D

Department of Electrical Engineering

Coordinator

T & P Sub-Committee

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Some Glimpses of the Training Program

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

Brief Report on technical training on "Motor winding applications (conceptual based)" from 03.10.2018-06.102018 for 3rd semester 2021 pass out Electrical Engineering students.

The operating modes and types of electrical machines are defined by the way that their windings are connected. Their fundamental principle of operation is based on the voltages and currents flowing through these windings. Independent of the type of machine, the windings can be categorized as concentrated or distributed, with further subcategories such as fractional and integral also applied. For the proper application of any motor the necessary component is the controller . With the integrated part of the training Arduinos and Raspberry Pi are introduced to the students with the coding platforms. Arduino is an open-source electronics platform based on easy-to-use hardware and software.

Objective of the training: Students will be explored to the conceptual as well as practical knowledge of the Industrial Automation & latest technologies being used to achieve industrial automation. The idea of organizing this training is to inculcate give the basic fundamentals of automation .

.Outcome of the program:

Students will be able to:

- understand the basic concept of construction, classifications and working of different motors.
- able to realize the application of different motors and control the motors with Arduino.
- Gain skills on making projects with the application on Arduino and different motors.

The program details are as below:

Title of training ***: Motor winding application (conceptual based)***

Resource Organization : I & We

Date ***:03/10/2018-06/10/2018***

Name of Trainer ***:Mr. Suruchi Gagan, Mr. Rohan Deb Roy, Mr. Subham Sinha***

Venue ***: Dr. A.P.J. Abdul Kalam Hall,*** Department of Electrical Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- In the very fast 1st day the trainers explained the basic constructions and working of different electrical machines with their classifications and applications.
- On 2nd day the students are introduced with the design of motor winding and the basic concept and process of that .
- On 3rd day of the training the students were introduced with the Arduino board and the trainers explained the details regarding the Arduino with application and coding.
- Basics of Arduino programming like Arduino sketch main loop, introduction to variables, arithmetic operators, relational operators, increment operator, conditional operators etc. are also discussed.
- On 3rd and 4th day of the training the students were instructed and motivated to write code for Arduino

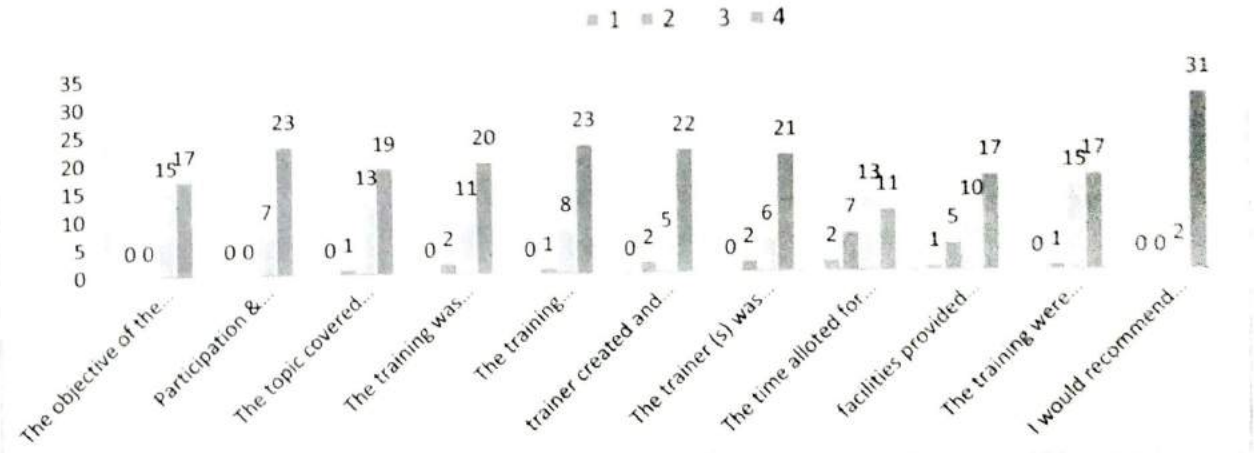
in their laptops.

- Some Arduino based basic projects are also discussed in the training such as controlling lights, speed control of motors and actuators, generation of PWM pulses, different sensory feedbacks use etc.
- The trainer explained all the doubts of the students very clearly and the students were highly inspired throughout the training.
- The attendance record of the students throughout the session was satisfactory.
- As per the feedback received from the students end, the entire session was really fruitful and enjoyable and this kind of training program may be for longer period in future for such better output.
- The training program was attended by 59 students from 3rd year, Electrical Engineering Department.

H.O.D
Department of Electrical Engineering

Jt- coordinators
Training and Placement subcommittee,
Department of Electrical Engineering

Feedback analysis of the training program:



VISION OF THE DEPARTMENT:
To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:
To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRICAL ENGINEERING

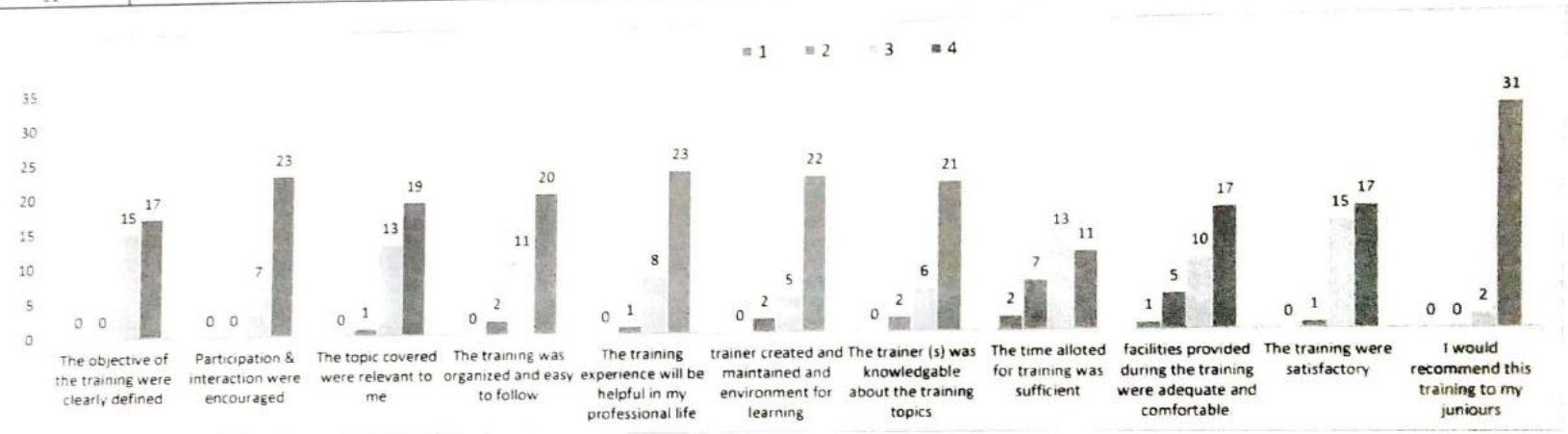
Feedback analysis For the training on Motor winding application (comceptual bases)

Duration: 03/10/2018-06/10/2018

3rd Sem EE, 2021 pass out batch

Training Organized by:T & P, S.I.T

	TRAINING PROVIDER: I & WE	Ratings(1 being lower & 4 being highest rating)				Total No. of Respondents : 33			
Sl.no	Feedback elements	1	2	3	4	% of rating 1	% of rating 2	% of rating 3	% of rating 4
1	The objective of the training were clearly defined	0	0	15	17	0.00	0.00	46.88	53.13
2	Participation & interaction were encouraged	0	0	7	23	0.00	0.00	21.88	71.88
3	The topic covered were relevant to me	0	1	13	19	0.00	3.13	40.63	59.38
4	The training was organized and easy to follow	0	2	11	20	0.00	6.25	34.38	62.50
5	The training experience will be helpful in my professional life	0	1	8	23	0.00	3.13	25.00	71.88
6	trainer created and maintained and environment for learning	0	2	5	22	0.00	6.25	15.63	68.75
7	The trainer (s) was knowledgable about the training topics	0	2	6	21	0.00	6.25	18.75	65.63
8	The time alloted for training was sufficient	2	7	13	11	6.25	21.88	40.63	34.38
9	facilities provided during the training were adequate and comfortable.	1	5	10	17	3.13	15.63	31.25	53.13
10	The training were satisfactory	0	1	15	17	0.00	3.13	46.88	53.13
11	I would recommend this training to my juniours	0	0	2	31	0.00	0.00	6.25	96.88



Sl. No	Name	Comment

Training on DBMS with Oracle

Introduction:

A database is a collection of related data which represents some aspect of the real world. A database system is designed to be built and populated with data for a certain task. **Database Management System (DBMS)** is a software for storing and retrieving users' data while considering appropriate security measures. It consists of a group of programs which manipulate the database. The DBMS accepts the request for data from an application and instructs the operating system to provide the specific data. In large systems, a DBMS helps users and other third-party software to store and retrieve data. DBMS allows users to create their own databases as per their requirement. The term "DBMS" includes the user of the database and other application programs. It provides an interface between the data and the software application.

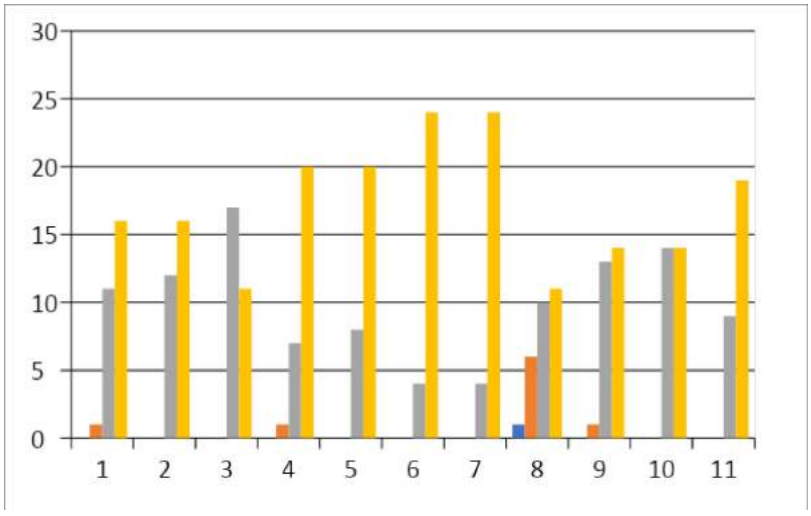
Objective: After attending the training, students should be able to understand:

1. Basic concepts of relational databases ensure refined code by developers.
2. Create reports of sorted and restricted data.
3. Run data manipulation statements.
4. Manage schema objects with data dictionary view.
5. Retrieve row and column data from tables.
6. Create and query external tables.

Program Details:

Training Program: DBMS with Oracle
Resource Organization: I & We
Date: 18/7/2017 to 22/7/2017
Students who can attend: B. Tech (ECE) 5^{h} Sem-2019 PO.

Feedback Analysis:



REPORT of FEEDBACK ANALYSIS:

Feedback for training was taken on 22nd july,2017 with the 3rd year students (2019 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Due to huge no. of students, they faced a problem for doing lab assignments, so for practical sessions students need computer lab.
3. Trainers are very much friendly, so students are being encouraged for solving any queries.
4. Laptop table should be provided.
5. Training should be held after starting of their regular classes' results an increased no of students in training.

(4)

Report for Training on Big Data/Hadoop during 10/07/2017 to 17/07/2017 for 3rd year 2018 pass out batch

Introduction

Hadoop is an open-source framework that allows to store and process big data in a distributed environment across clusters of computers using simple programming models. It is designed to scale up from single servers to thousands of machines, each offering local computation and storage. In the Training provides a quick introduction to Big Data, Map Reduce algorithm, and Hadoop Distributed File System.

Training Objective :

- Upon completion of this course, participants will be able to:
- Understand fundamentals of Concepts in Bigdata and hadoop etc
- Understand fundamentals of Hadoop etc.
- Be able to use the HDFS file system, debug and run simple Java programs for hdfs.
- Be aware of the important topics and principles of software development and write better &more maintainable code
- Be able to program using advanced Java topic like JDBC, Servlets and JSP .

What is Big Data?

Big data means really a big data, it is a collection of large datasets that cannot be processed using traditional computing techniques. Big data is not merely a data, rather it has become a complete subject, which involves various tools, techniques and frameworks.

Advantages of Hadoop :

- Hadoop framework allows the user to quickly write and test distributed systems. It is efficient, and it automatic distributes the data and work across the machines and in turn, utilizes the underlying parallelism of the CPU cores.
- Hadoop does not rely on hardware to provide fault-tolerance and high availability (FTHA), rather Hadoop library itself has been designed to detect and handle failures at the application layer.
- Servers can be added or removed from the cluster dynamically and Hadoop continues to operate without interruption.
- Another big advantage of Hadoop is that apart from being open source, it is compatible on all the platforms since it is Java based.

Training Methodology:

- Hands on practice approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: Big Data/Hadoop

Resource Organization/ Name of Trainer: I & We

10
te: ~~06~~/07/2017 to 17/07/2017

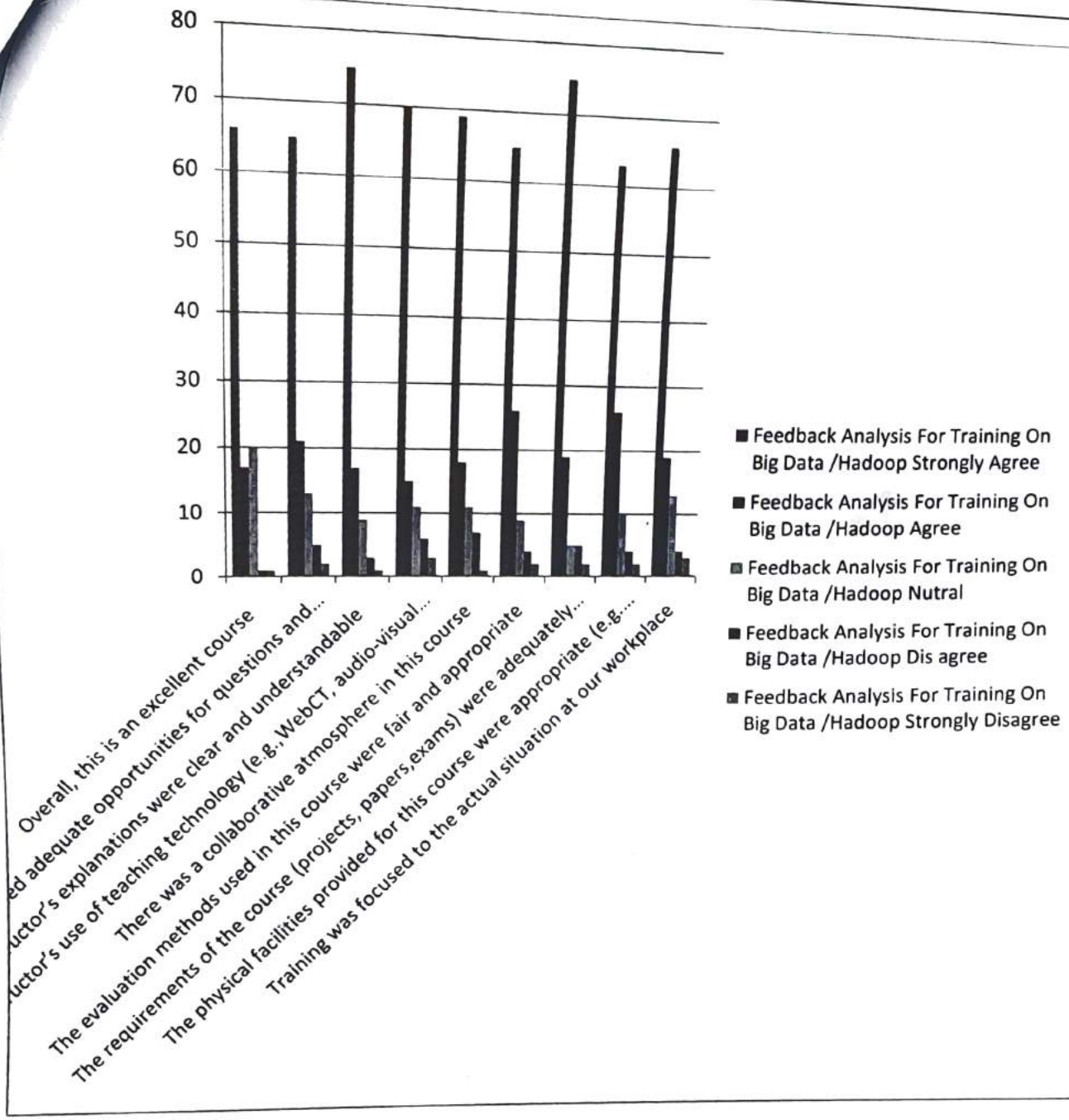
Venue: SIT, OT&UML Lab

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction to java its application in industries in different areas.
- Students had done many data analysis algorithm by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned framework of Hadoop.

Feedback analysis for the training:


80
70
60
50
40
30
20
10
0
Overall, this is an excellent course
ed adequate opportunities for questions and...
uctor's explanations were clear and understandable
uctor's use of teaching technology (e.g., WebCT, audio-visual...
There was a collaborative atmosphere in this course
The evaluation methods used in this course were fair and appropriate
The requirements of the course (projects, papers, exams) were adequately...
The physical facilities provided for this course were appropriate (e.g....
Training was focused to the actual situation at our workplace
Feedback Analysis For Training On Big Data /Hadoop Strongly Agree
Feedback Analysis For Training On Big Data /Hadoop Agree
Feedback Analysis For Training On Big Data /Hadoop Nutral
Feedback Analysis For Training On Big Data /Hadoop Dis agree
Feedback Analysis For Training On Big Data /Hadoop Strongly Disagree

Training on CORE JAVA

Introduction:

Java is a high-level programming language originally developed by Sun Microsystems and released in 1995. Java runs on a variety of platforms, such as Windows, Mac OS, and the various versions of UNIX. This tutorial gives a complete understanding of Java. This reference will take you through simple and practical approaches while learning Java Programming language. This training is an introduction to Core Java. It starts with steps to install required software and editor. It has details of OOPS concept with detailed examples and great explanation. It covers important concepts of Core Java. It covers History of Java, Origin, Features of Java, OOPS, Array and Multidimensional arrays. What is class, Control structures, Object, Method and different types of constructor, String, Exception Handling and Collection Framework examples. Each topic is covered with detailed explanation and with examples.

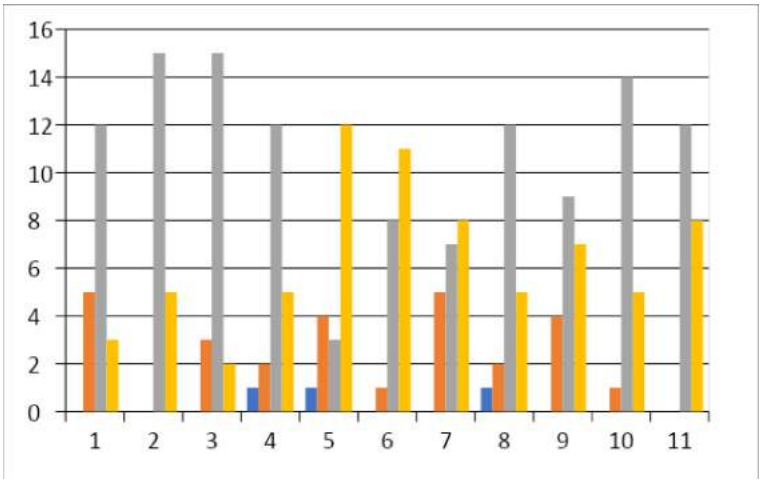
Course Objectives: After the training program, students will be able to:

1. Understand fundamentals of programming such as variables, conditional and iterative execution, methods, etc.
2. Understand fundamentals of object-oriented programming in Java, including defining classes, invoking methods, using class libraries, etc.
3. Be aware of the important topics and principles of software development.
4. write a computer program to solve specified problems.
5. use the Java SDK environment to create, debug and run simple Java programs.

Program Details:

Training Program: CORE JAVA
Resource Organization: I & We
Date: 10.04.2017-14.04.2017
Students who can attend: B. Tech (ECE) 4^{h} Sem-2019 PO.

Feedback Analysis:



REPORT of FEEDBACK ANALYSIS:

Feedback for training was taken on 14th April, 2017 with the 2nd year students (2019 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Laptop table should be provided.
3. Online material should be provided for making clear the concept.
4. Sitting arrangements should be improved.

(7)

Training on IoT Basics with Applications

Introduction: **Internet of Things (IoT)** is a network of physical objects or people called "things" that are embedded with software, electronics, network, and sensors that allows these objects to collect and exchange data. The goal of IoT is to extend to internet connectivity from standard devices like computer, mobile, tablet to relatively dumb devices like a toaster.IoT makes virtually everything "smart," by improving aspects of our life with the power of data collection, AI algorithm, and networks. The thing in IoT can also be a person with a diabetes monitor implant, an animal with tracking devices, etc. This IoT tutorial for beginners covers all the Basics of IoT. Students has learnt about Best practices for IoT in this Internet of Things in this training like.

- Design products for reliability and security
- Use strong authentication and security protocols.
- Energy efficient algorithms should be designed for the system to be active longer.

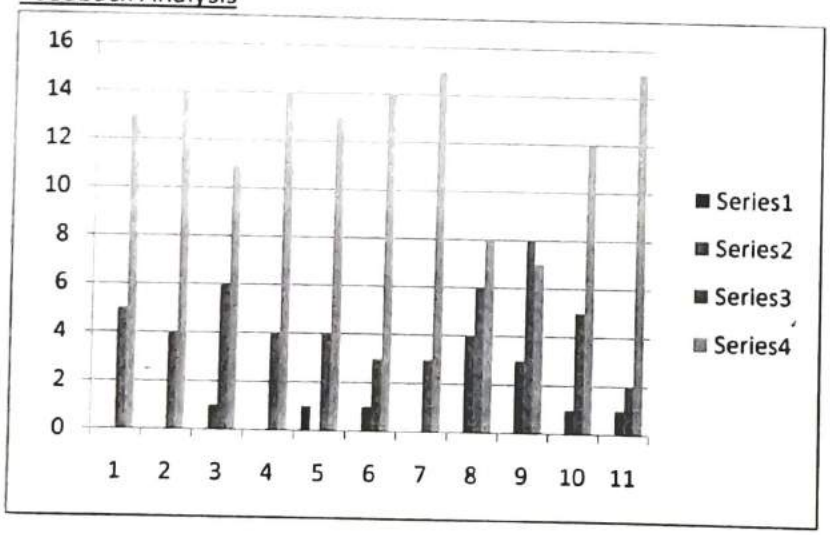
Objective:After attending the training, students should be able to understand:

1. IoT architecture and IoT Decision Framework
2. Configure Raspberry Pi, Understand Sensors, Actuators
3. Understand various IoT Networking Protocols which are mainly used to develop communication solutions.

Program Details:

Training Program: IoT Basics with Applications
Resource Organization: I & We
Date: 03.07.2017-15.07.2017
Students who can attend: B. Tech (ECE) 7^{h} Sem-2018 PO.

Feedback Analysis



Report of Feedback Analysis:

Feedback for training was taken on 25th July 2017 with the 4th year students (2018 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Due to problem of internet connection students faced difficulty to do their project work.
3. Trainers are very much friendly and energetic, so students are being encouraged for doing IOT projects.
4. Wi-Fi speed should be increased.

(7)

Training on IoT Basics with Applications

Introduction: **Internet of Things (IoT)** is a network of physical objects or people called "things" that are embedded with software, electronics, network, and sensors that allows these objects to collect and exchange data. The goal of IoT is to extend to internet connectivity from standard devices like computer, mobile, tablet to relatively dumb devices like a toaster.IoT makes virtually everything "smart," by improving aspects of our life with the power of data collection, AI algorithm, and networks. The thing in IoT can also be a person with a diabetes monitor implant, an animal with tracking devices, etc. This IoT tutorial for beginners covers all the Basics of IoT. Students has learnt about Best practices for IoT in this Internet of Things in this training like.

- Design products for reliability and security
- Use strong authentication and security protocols.
- Energy efficient algorithms should be designed for the system to be active longer.

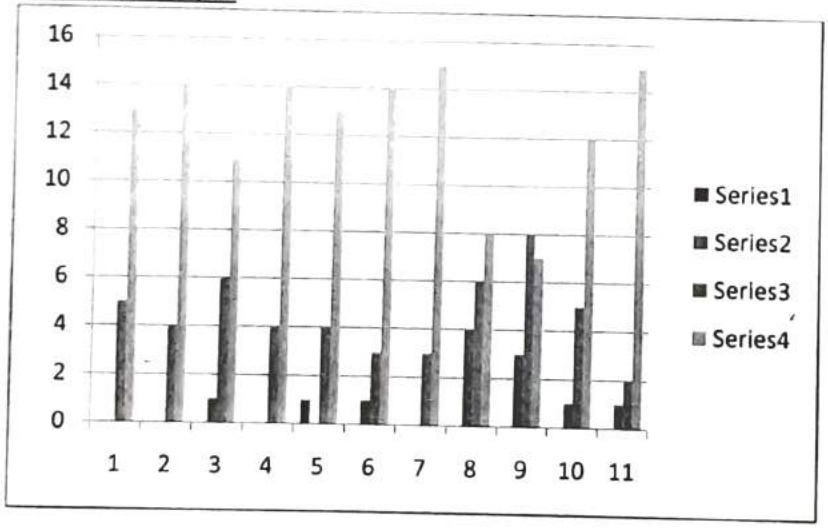
Objective: After attending the training, students should be able to understand:

1. IoT architecture and IoT Decision Framework
2. Configure Raspberry Pi, Understand Sensors, Actuators
3. Understand various IoT Networking Protocols which are mainly used to develop communication solutions.

Program Details:

Training Program: IoT Basics with Applications
Resource Organization: I & We
Date: 03.07.2017-15.07.2017
Students who can attend: B. Tech (ECE) 7^{h} Sem-2018 PO.

Feedback Analysis



Report of Feedback Analysis:

Feedback for training was taken on 25th July 2017 with the 4th year students (2018 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Due to problem of internet connection students faced difficulty to do their project work.
3. Trainers are very much friendly and energetic, so students are being encouraged for doing IOT projects.
4. Wi-Fi speed should be increased.

Training on HTML

Introduction:

Today's user expects a lot out of the web page: it has to load fast, expose the desired service, and be comfortable to view on all devices: from a desktop computers to tablets and mobile phones.In this course, we will learn the basic tools that every web page coder needs to know. We will start from the ground up by learning how to implement modern web pages with HTML and CSS. We will then advance to learning how to code our pages such that its components rearrange and resize themselves automatically based on the size of the user's screen. We'll be able to code up a web page that will be just as useful on a mobile phone as on a desktop computer. No "pinch and zoom" required!

Objective: After attending the training, students should be able to understand

1. Learn to build mobile responsive web pages, using the Bootstrap Framework.
2. Learn to work with variables, conditional statements, arrays, and loops in JavaScript.
3. Learn to build stylish forms in Bootstrap with complete JavaScript enabled validation.

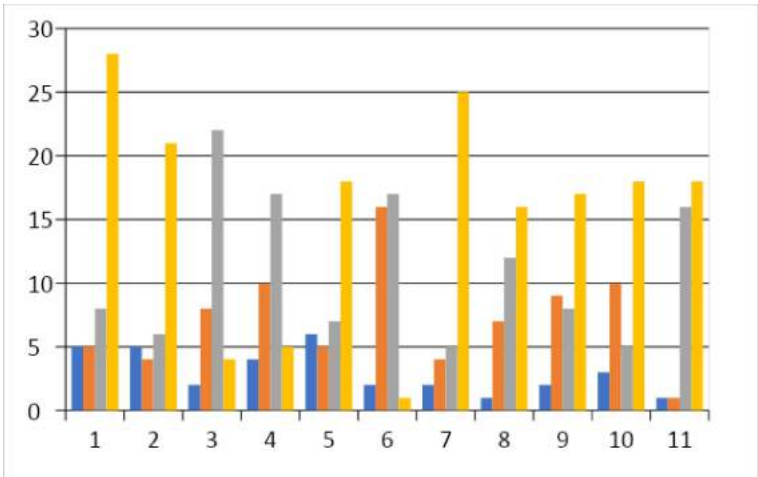
Program Details:

Training Program: HTML
Date: 31/7/2017-04/8/2017
Students who can attend: B. Tech (ECE) 3rd Sem-2020 PO.

Feedback Analysis:

Feedback Element	1	2	3	4
The objectives of the training were clearly defined	5	5	8	28
Participation and interaction were encouraged	5	4	6	21
The topics were relevant to me	2	8	22	4
The training was organized & easy to follow	4	10	17	5
The training experience will be helpful in my professional life	6	5	7	18
Trainer created & maintained an environment for learning	2	16	17	1
The trainer(s) was knowledgeable about the training topics	2	4	5	25
The time allotted for training was sufficient	1	7	12	16
The facilities provided during the training were adequate and comfortable	2	9	8	17
The training was satisfactory	3	10	5	18
I would recommend this training to my juniors.	1	1	16	18

Feedback Analysis



Feedback for training was taken on 02August, 2017 with the 2nd year students (2020 PO). Analysis of feedback is listed below:

1. Sitting arrangements should be improved.
2. Training is good for developing the skills of student but the objective of training was not clearly defined.
3. Trainer has sufficient knowledge to clear the doubts raised in classes.
4. Training sessions should be more interactive and interesting.
5. Voice of Trainer was not audible so students faced communication problem in classes.

Training on Embedded system with Microcontrollers

Introduction:

An embedded system is a microprocessor-based computer hardware system with software that is designed to perform a dedicated function, either as an independent system or as a part of a large system. At the core is an integrated circuit designed to carry out computation for real-time operations. Complexities range from a single microcontroller to a suite of processors with connected peripherals and networks, from no user interface to complex graphical user interfaces. The complexity of an embedded system varies significantly depending on the task for which it is designed. Embedded system applications range from digital watches and microwaves to hybrid vehicles and avionics. As much as 98 percent of all microprocessors manufactured are used in embedded systems. Embedded systems are managed by microcontrollers or digital signal processors (DSP), application-specific integrated circuits (ASIC), field-programmable gate arrays (FPGA), and gate arrays. These processing systems are integrated with components dedicated to handling electric and/or mechanical interfacing. Embedded systems programming instructions, referred to as firmware, are stored in read-only memory or flash memory chips, running with limited computer hardware resources. Embedded systems connect with the outside world through peripherals, linking input and output devices. The industry for embedded systems is expected to continue growing rapidly, driven by the continued development of Artificial Intelligence (AI), Virtual Reality (VR) and Augmented Reality (AR), machine learning, deep learning, and the Internet of Things (IoT). The cognitive embedded system will be at the heart of such trends as: reduced energy consumption, improved security for embedded devices, cloud connectivity and mesh networking, deep learning applications, and visualization tools with real time data.

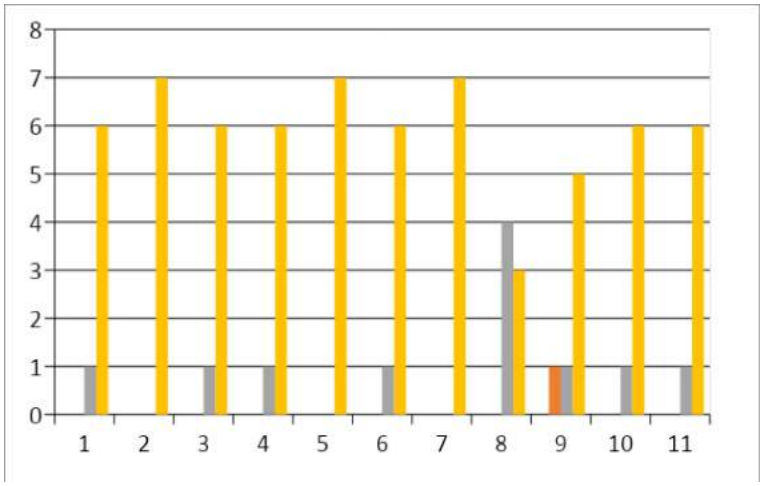
Objectives: After attending the training, students should be able to understand:

1. The basic working of a microcontroller system and its programming in assembly language.
2. To integrate hardware and software for microcontroller applications systems.
3. The internal architecture and interfacing of different peripheral devices with Microcontrollers.
4. To write the programs for microcontroller.
5. The role of embedded systems in industry.
6. The design concept of embedded systems.

Program Details:

Training Program: Embedded system with Microcontrollers
Resource Organization: I & We
Date: 15/1/2018 to 17/1/2018, 19/3/2018 to 21/3/2018, 23/4/2018 to 25/4/2018
Students who can attend: B. Tech (ECE) 6^{h} Sem-2019 PO.

Feedback Analysis



Report of Feedback Analysis 1st Phase of Winter Training

Feedback for training was taken on 17th Jan, 2018 with the 2ND year students (2020 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Due to problem of internet connection students faced difficulty to do their project work.
3. Trainers are very much friendly and energetic, so students are being encouraged for doing embedded projects.

Report of Feedback Analysis 2nd Phase of Winter Training

Feedback for training was taken on 21st March 2018 with the 2ND year students (2020 PO). Analysis of feedback are listed below:

1. Training was good.
2. Rooms need to be more updated with proper charging facilities for Laptop.
3. Breaks in regular interval should also be provided.
4. There are too many students so too much noise and chaos in class.
5. Projector was not working properly.
6. Training session should be more.
7. This is very hard for teacher to teach the whole ECE 2nd year students altogether.
8. Two trainers is needed to run the training program smoothly.

Report of Feedback Analysis 3rd Phase of Winter Training

Feedback for training was taken on 25th April 2018 with the 2ND year students (2020 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Due to problem of internet connection students faced difficulty to do their project work.

SILIGURI INSTITUTE OF TECHNOLOGY

Report for Training on advanced JAVA with Oracle during 3/4/2017 to 7/4/2017 for 3rd year 2018 pass out batch

Introduction:

Apart from University requirement, Java is also a pre-requisite for learning latest technologies like Android and Big Data. In order to prepare and make students ready for industry Computer science department has carved out a course that specifically aligns with industry requirements and conducted by industry experts.

The course 'OOPS with Java' was designed as 12 days online training conducted for 2nd year CSE and IT students. In this training session students learned basic object oriented concepts such as inheritance, encapsulation, and abstraction. They learn how to create and use simple Java classes containing arrays, loops, and conditional constructs. They also learn to use and manipulate object references, and to write simple error handling code. They also learned some advance topic like Oracle JDBC connectivity , JSP, Servlates.

Training Objective :

Upon completion of this course, participants will be able to :

• Understand fundamentals of Java programming such as variables, conditional and iterative execution, methods, etc

• Understand fundamentals of object-oriented programming using Java, including defining classes, invoking methods, using class libraries, etc.

• Be able to use the Java SDK environment to create, debug and run simple Java programs

• Be aware of the important topics and principles of software development and write better &more maintainable code

• Be able to program using advanced Java topic like Oracle JDBC connectivity, Servlets and JSP .

Training Methodology:

- Hands on practice on approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: Advanced JAVA with Oracle

Resource Organization/ Name of Trainer: I & We

Date: 3/4/2017 to 7/4/2017

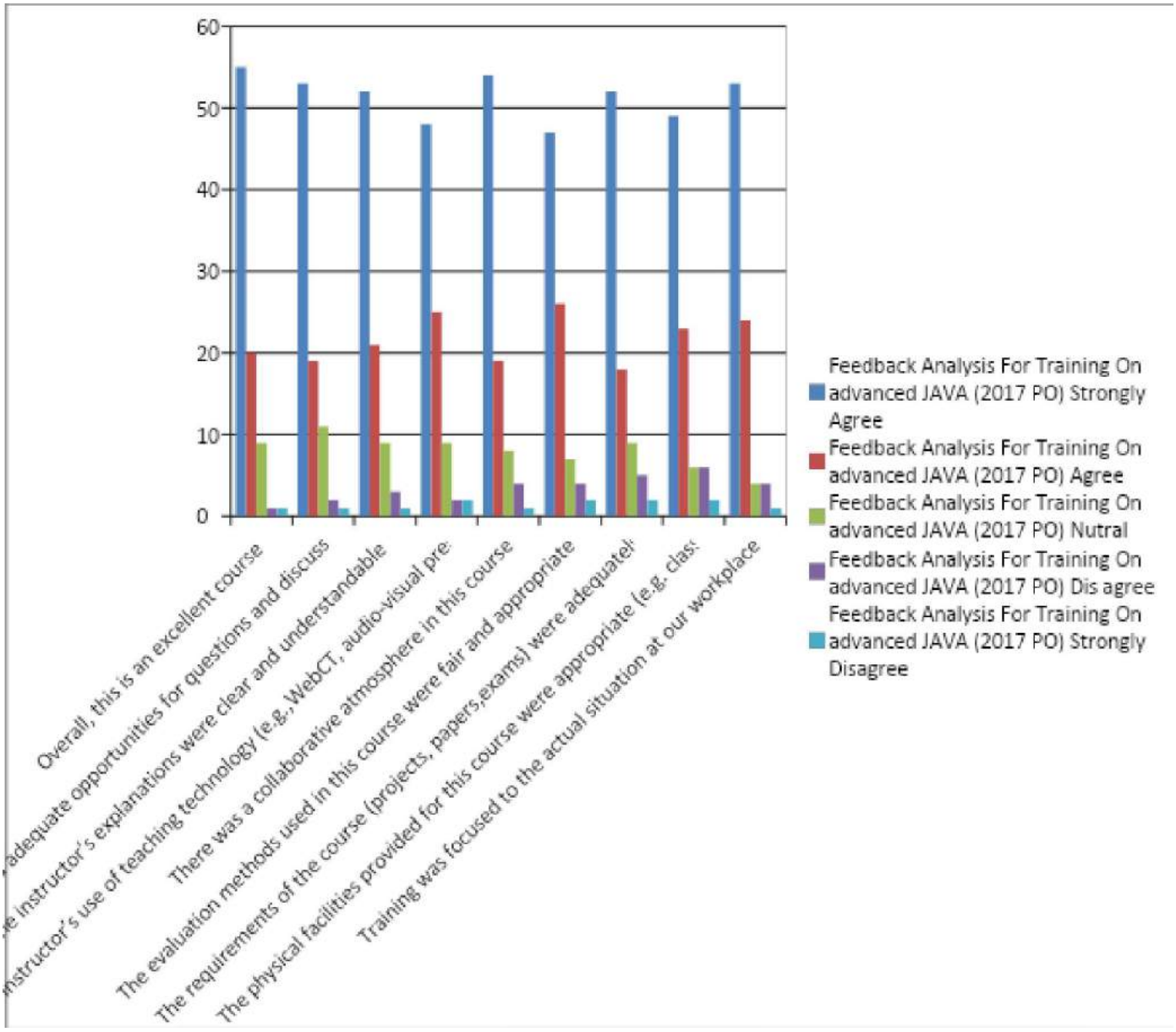
Venue: SIT, Programming Lab I/ SIT, Programming Lab II/OT&UML Lab

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction to, OOPs programming and java its application in industries in different areas with the students.
- Students had done many programming by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned many things about Oracle connectivity, JSP, Servlet

Feedback analysis for the training:


60
50
40
30
20
10
0
Overall, this is an excellent course
adequate opportunities for questions and discuss
e instructor's explanations were clear and understandable
nstructor's use of teaching technology (e.g., WebCT, audio-visual pre
There was a collaborative atmosphere in this course
The evaluation methods used in this course were fair and appropriate
The requirements of the course (projects, papers,exams) were adequatel
The physical facilities provided for this course were appropriate (e.g. class
Training was focused to the actual situation at our workplace
Feedback Analysis For Training On advanced JAVA (2017 PO) Strongly Agree
Feedback Analysis For Training On advanced JAVA (2017 PO) Agree
Feedback Analysis For Training On advanced JAVA (2017 PO) Nutral
Feedback Analysis For Training On advanced JAVA (2017 PO) Dis agree
Feedback Analysis For Training On advanced JAVA (2017 PO) Strongly Disagree

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

Report for the training on AUTOCAD 3D conducted during 16/8/2017 to 19/8/2017 & 21/8/2017 to 26/8/2017 for 2018 pass out CE students.

Objective of the training: Students explored the basic area and application of AutoCAD 3D. They also acquired the basic skill set needed to model and render 3 dimensional designs in less time with significant to meet the needs of the industry.

Outcome of the program:

Students will be able to:

- Able to understand and complete basic as well as advanced topics of AutoCAD 3D, including Surface modelling and Rendering.
- Able to apply AutoCAD 3D in real time engineering drawings.

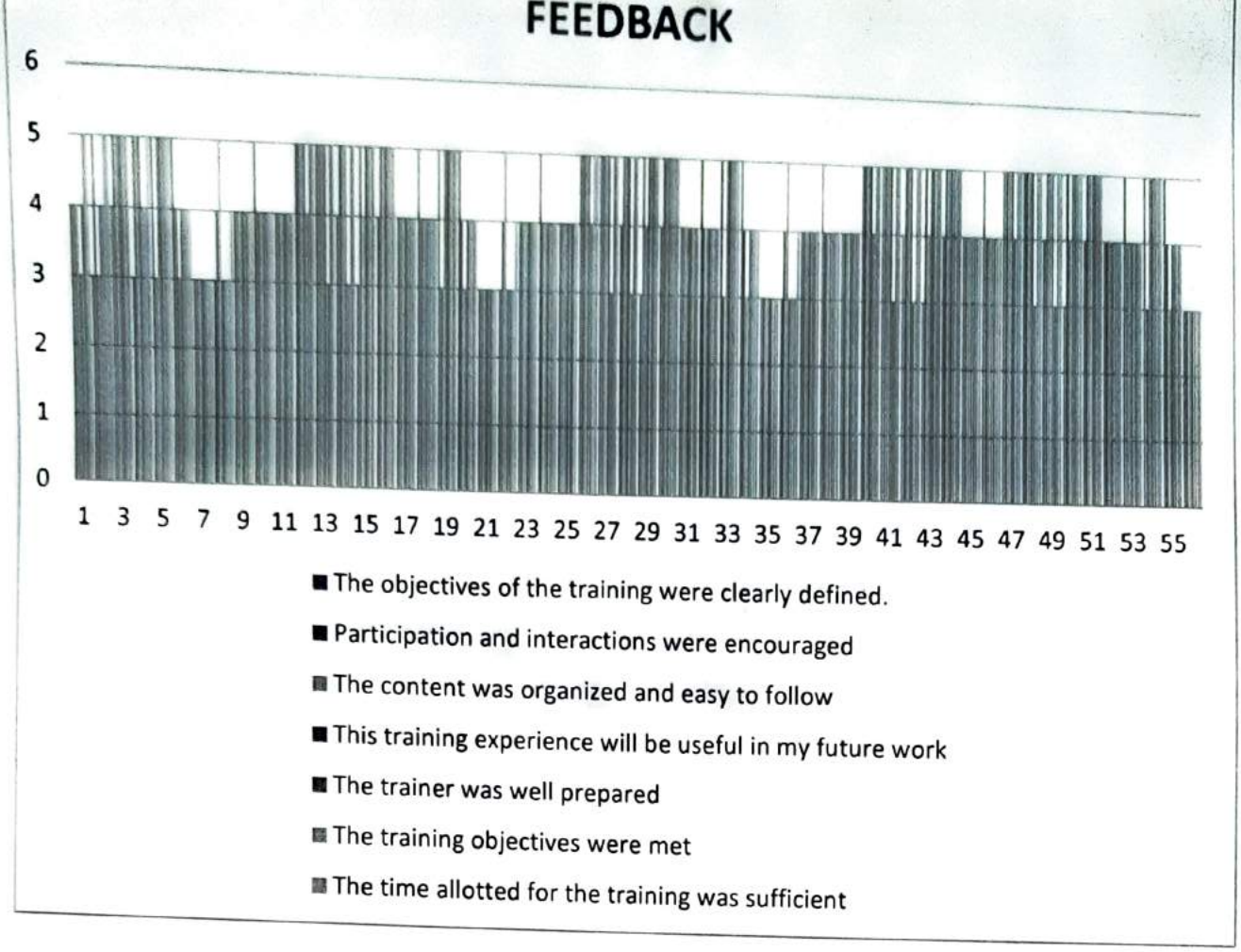
The program details are as below:

Title of training : AUTOCAD 3D
Rersource Organization: I & We
Date : 16/8/2017 to 19/8/2017 & 21/8/2017 to 26/8/2017
Venue : Department of Civil Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- At the beginning they were introduced to the AutoCAD 3D and given an elaborated idea of its application in the different areas of the industry
- The topics discussed and taught during the intermediate days of the training were 3D modeling, solid editing, visualizing solids, mesh modeling, surface modeling, rendering and presentation.
- Students executed many 3-D practice models during the session
- At the end of the training an online exam was conducted
- As per the feedback received from the students end, the entire session was a real success and students learned and enjoyed the session on AutoCAD 3D.



HOD, Dept. of Civil Engineering

Departmental T&P Coordinator
Dept. of Civil Engineering

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

Report for the training on Basic AutoCAD conducted during 10/4/2017 to 14/4/2017 for 2019 pass out CE students.

Objective of the training: Students explored the basic area and application of AutoCAD. They also acquired the basic skill set needed to produce quality designs in less time with significant to meet the needs of the industry.

Outcome of the program:

Students will be able to:

- Able to understand and exhibit the preliminary concepts of AutoCAD
- Able to apply AutoCAD in real time engineering drawings.

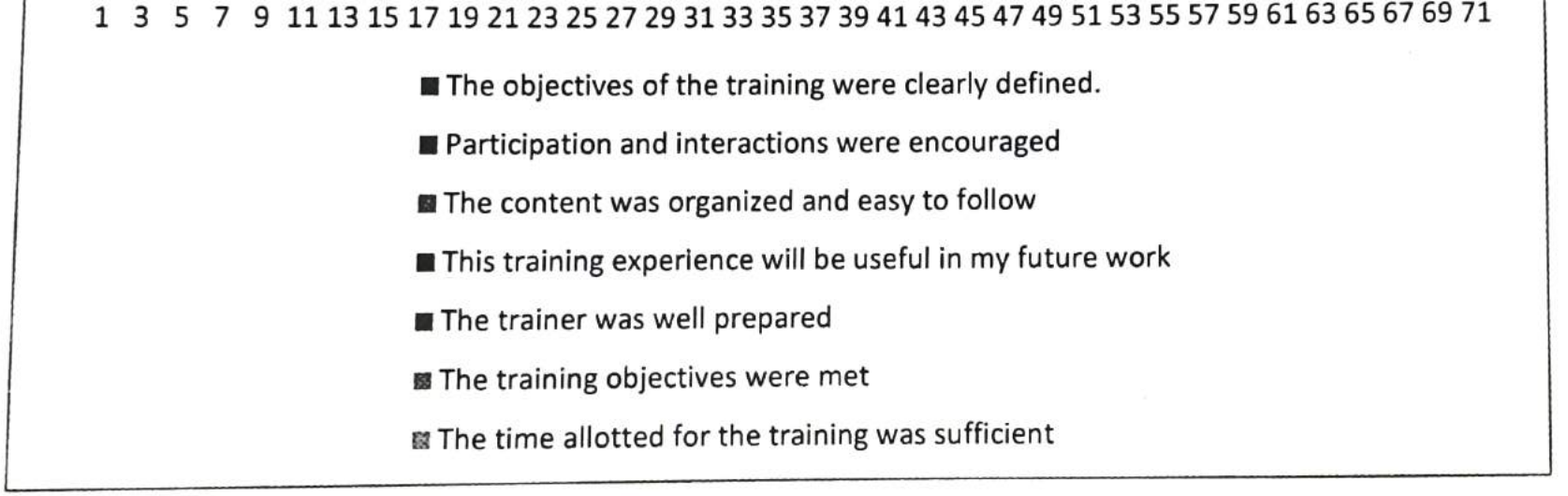
The program details are as below:

Title of training : **Basic AutoCAD**
Rersource Organization: I & We
Date : 10/4/2017 to 14/4/2017
Venue : Department of Civil Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- At the beginning they were introduced to the AutoCAD and given an elaborated idea of its application in the different areas of the industry
- The topics discussed and taught during the intermediate days of the training were primitives, viewing, geometry, precision, layers, properties, modifying, blocks, layouts, notes and labels and printing
- Students executed many 2-D practice drawings during the session
- At the end of the training an online exam was conducted
- As per the feedback received from the students end, the entire session was a real success and students learned and enjoyed the session on AutoCAD.



HOD, Dept. of Civil Engineering

Departmental T&P Coordinator
Dept. of Civil Engineering

2018-19

Report for the workshop on OOP with C++/JAVA on 11.03.19 to 15.03.19 for 2nd year 2021 pass out students.

The major motivating factor in the invention of object-oriented approach is to remove some of the flaws encountered in the procedural approach. OOP treats data as a critical element in the program development and does not allow it to flow freely around the system. It ties data more closely to the function that operate on it, and protects it from accidental modification from outside function. OOP allows decomposition of a problem into a number of entities called objects and then builds data and function around these objects. The data of an object can be accessed only by the function associated with that object. However, function of one object can access the function of other objects. OOP offers several benefits to both the program designer and the user. Object Orientation contributes to the solution of many problems associated with the development and quality of software products. The new technology promises greater programmer productivity, better quality of software and lesser maintenance cost. OOP has become one of the programming buzzwords today. There appears to be a great deal of excitement and interest among software engineers in using OOP. Applications of OOP are beginning to gain importance in many areas. The most popular application of object-oriented programming, up to now, has been in the area of user interface design such as window. Hundreds of windowing systems have been developed, using the OOP techniques. The facilities that C++ adds on to C care classes, inheritance, function overloading and operator overloading. These features enable creating of abstract data types, inherit properties from existing data types and support polymorphism, thereby making C++ a truly object-oriented language.

Objective of the training: Students will be explored to understand the basic areas and applications of OOP with C++/ JAVA. They also acquire the skills to apply OOP in real time system, simulation and modeling, Decision support and office automation systems, Object-oriented data bases, Neural networks and parallel programming etc.

Outcome of the program:

Students will be able to:

- Able to exhibit knowledge to understand the preliminary concept about OOP with C++ /JAVA.
- Able to apply OOP in real time, simulations, modeling, automation, office system etc.

The program details are as below:

Title of training ***: OOPs with C++/JAVA***

Resource Organization: Ardent Computech

Date ***: 11/03/2019-15/03/2019***

Name of Trainer ***: Mr. Debasish Sahoo***

Venue **:** Seminar Hall, Deptt. Of EE, S.I.T

Summary of the program:

The following points can be noted from the program

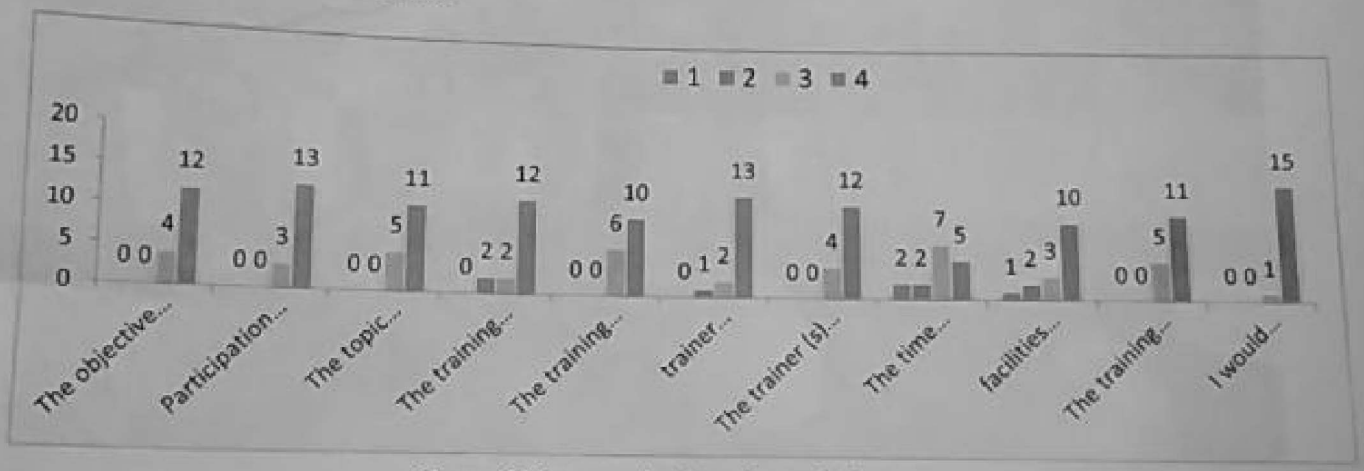
- At the beginning of the training and in day one and two Mr. Debasish Sahoo has clearly described the basic theories of C, C++, OOP, JAVA, its application in industries in different areas with the students.
- The students were asked to bring their laptops for programing and the trainer instructed and taught the students the different programming on the basis of the theories they have learned.
- Students had done many programing by themselves during the trainings.
- At the end of the training an online exam was conducted.

- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- The attendance record of the students throughout the training is given below:

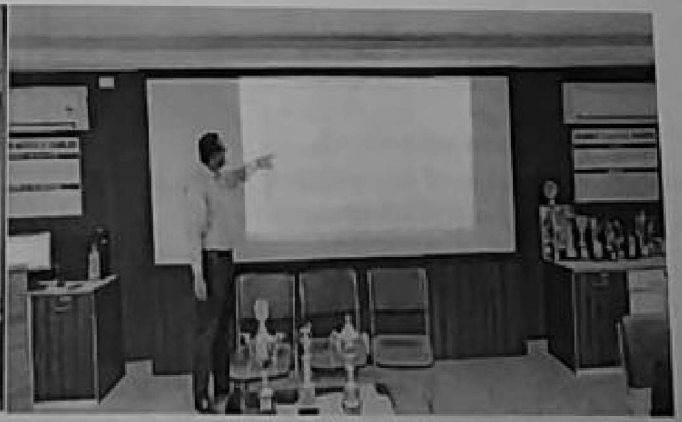
Attendance									
11/3/2019		12/3/2019		13/03/19		14/03/19		15/03/19	
1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half
41	36	25	6	28	21	22	21	22	18

- As per the feedback received from the students end, the entire session was really fruitful and enjoyable and this kind of training program may be for longer period in future for such better output.

Feedback analysis for the event:



Some Glimpses during the training



VISION OF THE DEPARTMENT:
To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:
To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

Report for the training on Python during 02/04/19 to 08/04/19 for 1st year 2023 pass out EE and ECE students.

Python is a widely used general-purpose, high-level programming language. Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than would be possible in languages such as C, C++ or Java. The language provides constructs intended to enable clear programs on both a small and large scale.
Python supports multiple programming paradigms, including object-oriented, imperative and functional programming or procedural styles. It features a dynamic type system and automatic memory management and has a large and comprehensive standard library.
Python is a programming language that lets you work more quickly and integrate your systems more effectively. You can learn to use Python and see almost immediate gains in productivity and lower maintenance costs.
Python runs on Windows, Linux/Unix, Mac OS X, and has been ported to the Java and .NET virtual machines.
Python is free to use, even for commercial products, because of its OSI-approved open source license.

Objective of the training: Students will be explored to understand the basic areas and applications of Python. They also acquire the skill set needed to deal with the challenges involved in real-world programming and scripting issues and embedded technologies to meet the needs of industry both today and in the future.

Outcome of the program:

Students will be able to:

- Able to exhibit knowledge to understand the preliminary concept about Python.
- Able to apply Python in real time, embedded and in modern technologies.

The program details are as below:
Title of training ***: Python***
Resource Organization: Ardent Computech
Date ***: 02/04/2019-08/04/2019***
Name of Trainer ***: Mr. Arnab Chakraborty***
Venue : Control System Lab, Deptt. Of EE, S.I.T

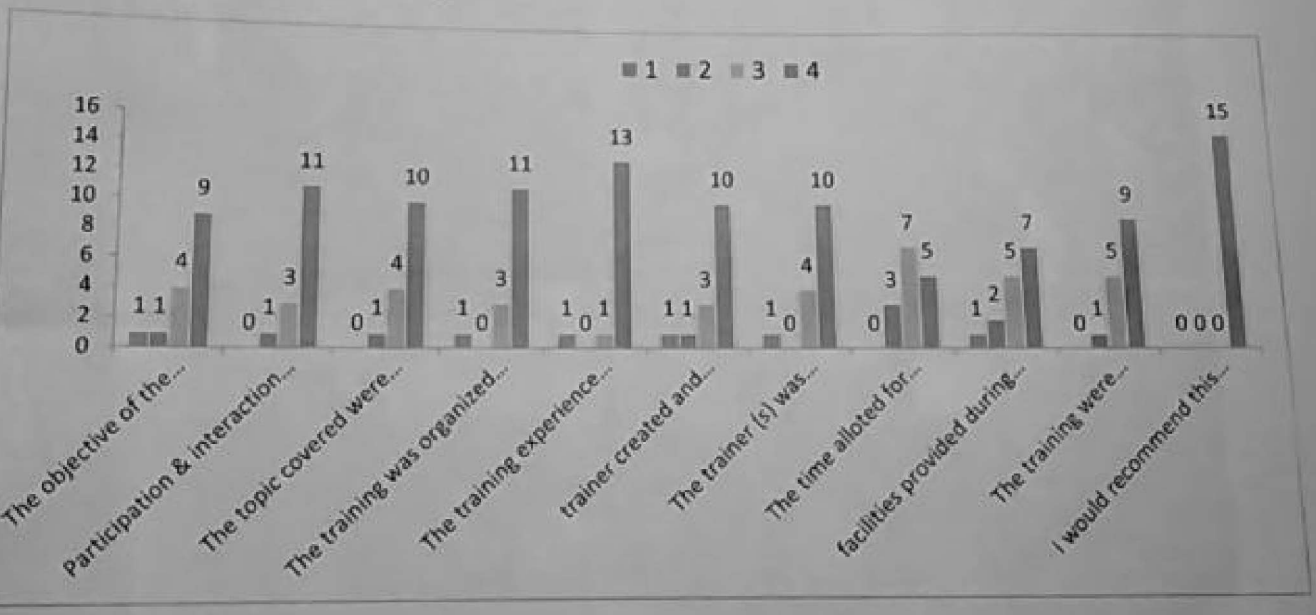
Summary of the program:

The following points can be noted from the program

- At the beginning of the training Mr. Arnab Chakraborty has clearly described the basic Introduction to Python and interpretable, OOPs programming/scripting language, C, C++ and its application in industries in different areas with the students.
- The topics discussed and practiced during the next days of the training are Built-in Functions, Non-essential Built-in Functions, Built-in Types, Built-in Exceptions, String Services, Data Types, Numeric and Mathematical Modules, File and Directory Access, Data Persistence, Data Compression and Archiving, File Formats, Cryptographic Services, Generic Operating System

- Services, Optional Operating System Services, Internet Data Handling, Structured Markup Processing Tools, Internet Protocols and Support, Graphical User Interfaces with Tk, Development Tools, Debugging and Profiling etc.
- Students had done many programing by themselves during the trainings like making of calculator using Graphical User Interfaces tool.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful and enjoyable and the students have learned many things about Python.

Feedback analysis for the training:



SILIGURI INSTITUTE OF TECHNOLOGY

ELECTRICAL ENGINEERING

Some Glimpses during the training

H.O.D

Department of Electrical Engineering

Jt- coordinators

Training and Placement subcommittee,

Department of Electrical Engineering

VISION OF THE DEPARTMENT:

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:

To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing [illegible] in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

Brief Report on technical training on "PLC and SCADA automation" from 03.10.2018-06.10.2018 for 5th semester 2020 pass out Electrical Engineering students.

The most used guiding force behind an automated industrial plant is a "programmable logic controller" generally known as a PLC. PLCs along with certain other necessary ingredients like sensors, motors, actuators, valves, conveyors, boilers, SCADA systems, computers & many more, makes a real automated manufacturing plant. A programmable logic controller (PLC) or programmable controller is an industrial digital computer which has been ruggedized and adapted for the control of manufacturing processes, such as assembly lines, or robotic devices, or any activity that requires high reliability control and ease of programming and process fault diagnosis. Supervisory control and data acquisition (SCADA) is a control system architecture that uses computers, networked data communications and graphical user interfaces for high-level process supervisory management, but uses other peripheral devices such as programmable logic controller (PLC) and discrete PID controllers to interface with the process plant or machinery. The operator interfaces which enable monitoring and the issuing of process commands, such as controller set point changes, are handled through the SCADA computer system. However, the real-time control logic or controller calculations are performed by networked modules which connect to the field sensors and actuators. PLCs are used in various applications in industries such as the steel industry, automobile industry, chemical industry and the energy sector. The scope of PLCs dramatically increases based on the development of all the various technologies where it is applied. SCADA Applications in Power System. Supervisory control and data acquisition (SCADA) is an industrial control system which is used in many modern industries like energy, manufacturing, power, water transportation, etc. ... SCADA systems range from simple to large configurations.

The training on PLC & SCADA Automation is organized to make the aspiring engineers acquainted with the conceptual as well as practical knowledge of the Industrial Automation & latest technologies being used to achieve industrial automation. The idea of organizing this training is to inculcate the basic fundamentals of automation in the students and provide them with a platform to work on, in the near future.

Objective of the training: Students will be explored to the conceptual as well as practical knowledge of the Industrial Automation & latest technologies being used to achieve industrial automation. The idea of organizing this training is to inculcate give the basic fundamentals of automation .

.**Outcome of the program:**

Students will be able to:

- understand the basic concept of PLC and SCADA and their uses.
- able to realize the application of PLC and SCADA in industrial automation.
- Gain skills on making projects with the application on PLC and SCADA.

The program details are as below:

Title of training : PLC and SCADA Automation
Resource Organization : I & We
Date :03/10/2018-06/10/2018
Name of Trainer :*Mr. Abhijit Maitra*

Venue ***:*** *Smart class room,* Department of Electrical Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- In the very fast 1st day Mr. Abhijit Maitra has explained the detailed through power point presentation the theoretical concept of Industrial automation, PLC , SCADA and its use in present days in industries along with the concept of Electrical power system.
- On the 2nd day Mr. Maitra gave very good introduction to PLC hardware, General PLC theory and concept, architecture of PLC, PLC components , programming language introduction, introduction of PLC software, SCADA applications. Students listened and learned in the entire session with accuracy.
- The students were instructed to bring their laptops for application or laboratory purpose and during the 3rd and 4th day the trainer taught the students about how to work with PLC and SCADA through software.
- During the interactive session some students raised their queries and they motivated to start some basic projects based on PLC programing.
- The trainer explained all the doubts of the students very clearly and the students were highly inspired throughout the training.
- The attendance record of the students throughout the session was satisfactory.
- The training program was attended by 47 students from 3rd year, Electrical Engineering Department.

…….. ……..

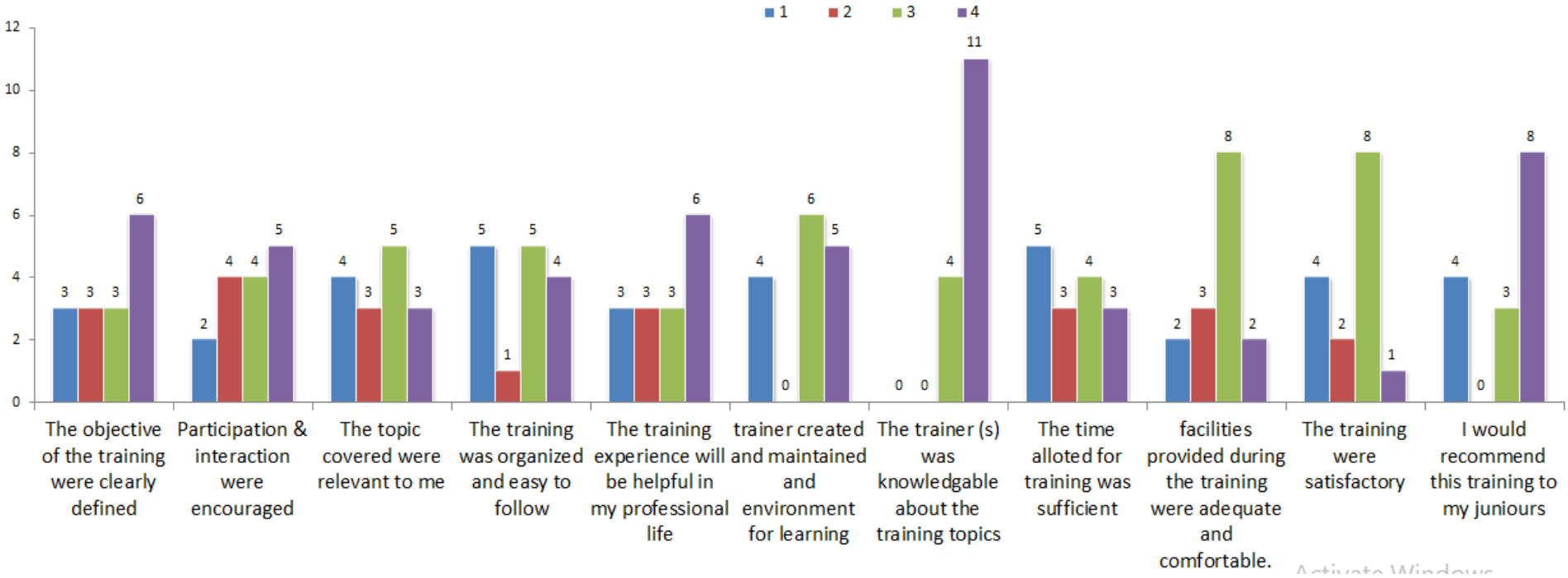
H.O.D **Jt- coordinators**

Department of Electrical Engineering **Training and Placement subcommittee, Department of Electrical Engineering**

SILIGURI INSTITUTE OF TECHNOLOGY

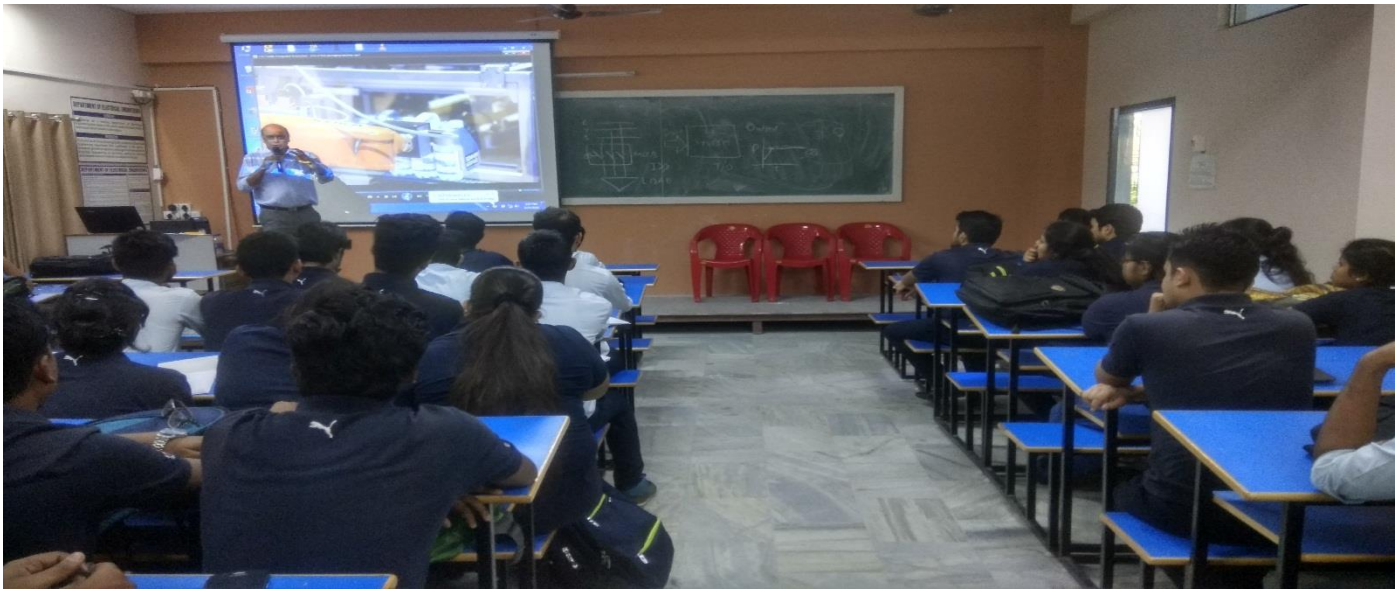
ELECTRICAL ENGINEERING

Feedback analysis for the training:



SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

Some Glimpses of the training



VISION OF THE DEPARTMENT:

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:

To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Brief report of 60 Hours Technical Training Program on" Energy Management Advanced (Auto-CAD Electrical Design)"

Energy Audit is the key to a systematic approach for decision-making in the area of energy management. It attempts to balance the total energy inputs with its use, and serves to identify all the energy streams in a facility. It quantifies energy usage according to its discrete functions. Industrial energy audit is an effective tool in defining and pursuing comprehensive energy management program. The Energy Audit would give a positive orientation to the energy cost reduction, preventive maintenance and quality control programs which are vital for production and utility activities. Smart energy in buildings is an important research area of Internet of Things (IoT). Buildings as important parts of the smart grids, their energy efficiency is vital for the environment and global sustainability.

Objective of the training program: Students will be explored to the concept of advanced energy management and Auto-CAD based electrical design. They are also able to design & develop IoT based energy monitoring system.

Outcome of the training program:

- Able to understand the need of energy management and audit in different areas
- Design some basic layout of electrical system using Auto-CAD
- Understand the technical aspects of plant and equipment
- Use the energy review to develop this into an Energy Management System
- Use IoT tools for some smart monitoring systems in modern appliances

The program details are as below:

Title of program: Technical Training Program on Energy Management Advanced (Auto-CAD Electrical Design)

Resource Organization: I and We, Kolkata

Date: Phase-I: 18.01.18-20.01.18, Phase-II: 16.04.18-18.04.18, Phase-III: 26.04.18-28.08.18

Time: 10.00 am-5 pm.

Venue: APJ Abdul Kalam Seminar Hall/Smart Class Room, Department of Electrical Engineering, SIT

The entire training program has been conducted in three (03) phases

The following points can be noted from the **Phase-I** program

- At the beginning of the training an introductory and welcome speech has been delivered by Prof. J. B. Basu, Head of the Department, Department of Electrical Engineering, SIT, Siliguri.
- In this phase Auto-CAD based electrical design of different electrical panels have been discussed. In this session design of relays, MCBs, switches, motors have been demonstrated.

- During this session some live industrial projects and its energy audit analysis has been discussed in a brief manner to be familiar with the different topologies of energy management system.

The following points can be noted from the **Phase-II** program

- In this session IoT (Internet of Things) based smart monitoring system for energy management analysis has been discussed. The Internet of Things (IoT) is the network of physical objects or "things" embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data.
- In their session they also discussed the typical programming concept of Arduino based microcontroller and development of flowchart while executing any typical problem analysis.
- During this session utilization of energy and its impact in house hold applications have been established and concept of smart energy meter using IoT tools has been introduced.

The following points can be noted from the **Phase-III** program

- In this session server-client interaction through online chat window has been demonstrated through different coding and analysis. Several communications during the process can be recorded and monitored for data analysis.
- A typical analysis of temperature monitoring and control system using node MCU and ubidots has been discussed.
- Students are highly motivated in this particular application; they formed several groups and started to implement the basic IoT tools in some real-time projects.

Overall Monitoring:

- All the students are entitled to prepare a brief report on the training program at the end training.
- The attendance record of the students throughout the session was satisfactory.
- As per the feedback received from the students end, the interactive session was fruitful and much attractive in modern days perspective and this kind of training program may be for longer period in future for such better output.
- In the concluding part, the trainers thanked all the students for their patience hearing and gave his contact no. and email id in case any students have any query to develop some IoT based real-time projects.

The training program continued with 63 students from 3rd year of Electrical Engineering Department.

H.O.D

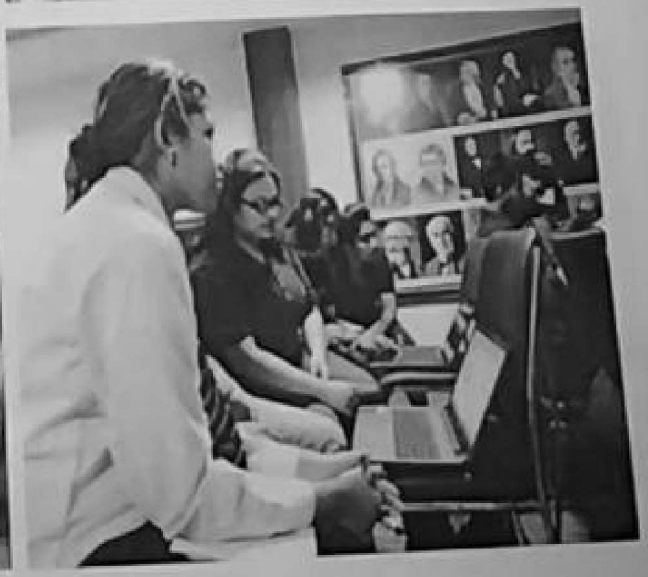
Department of Electrical Engineering

Coordinator

T & P Sub-Committee

SILIGURI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING

Some Glimpses of the Training Program



SILIGURI INSTITUTE OF TECHNOLOGY

Report for Training on Coding with data structure during 45 hours for 2nd year 2021 pass out batch

Introduction :

Data Structures is a concept a means of storing a collection of data. Computer Science is a concern with study of methods for effectively using a computer to solve problems. These can be solve by algorithms and data structures. Data Structures tells you what way the data as to store in computer memory and how to access the data efficiently. Many Applications are designed by data structures stack applications like page visited history in a web-browser, chain of method calls in the Java virtual machine or C++ Run-time environment etc Queue Application Like Waiting Lines, Multi-programming etc For many applications the choice of proper data structure is the only major decision involving the implementation. Majorly the database designing and internal implementation is done only by using Data Structures techniques through C programming language.

Training Objective :

This Course main objective for the student to understand Analysis and Designing of the Algorithms and how the different data structures are used for efficient accessing of the data and Manipulation of the data at the end of the session we can able to Know different Kinds of data structures and we can able to provide different algorithms for time and space complexity.

TRAINING OUTCOME:

After completed the training student will able to

- Understand the concept of data structures and its relevance in computer science.
- Familiarize with selected linear and nonlinear data structures.
- Enhance skill in programming in C.

Training Methodology:

- Hands on practice approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project using C language.

Training Details:

Title of Training: Coding with data structure,C

Resource Organization/ Name of Trainer: I & We

Date: 10/1/2018 to 12/1/2018, 15/3/2018 to 17/3/2018, 19/4/2018 to 21/4/2018

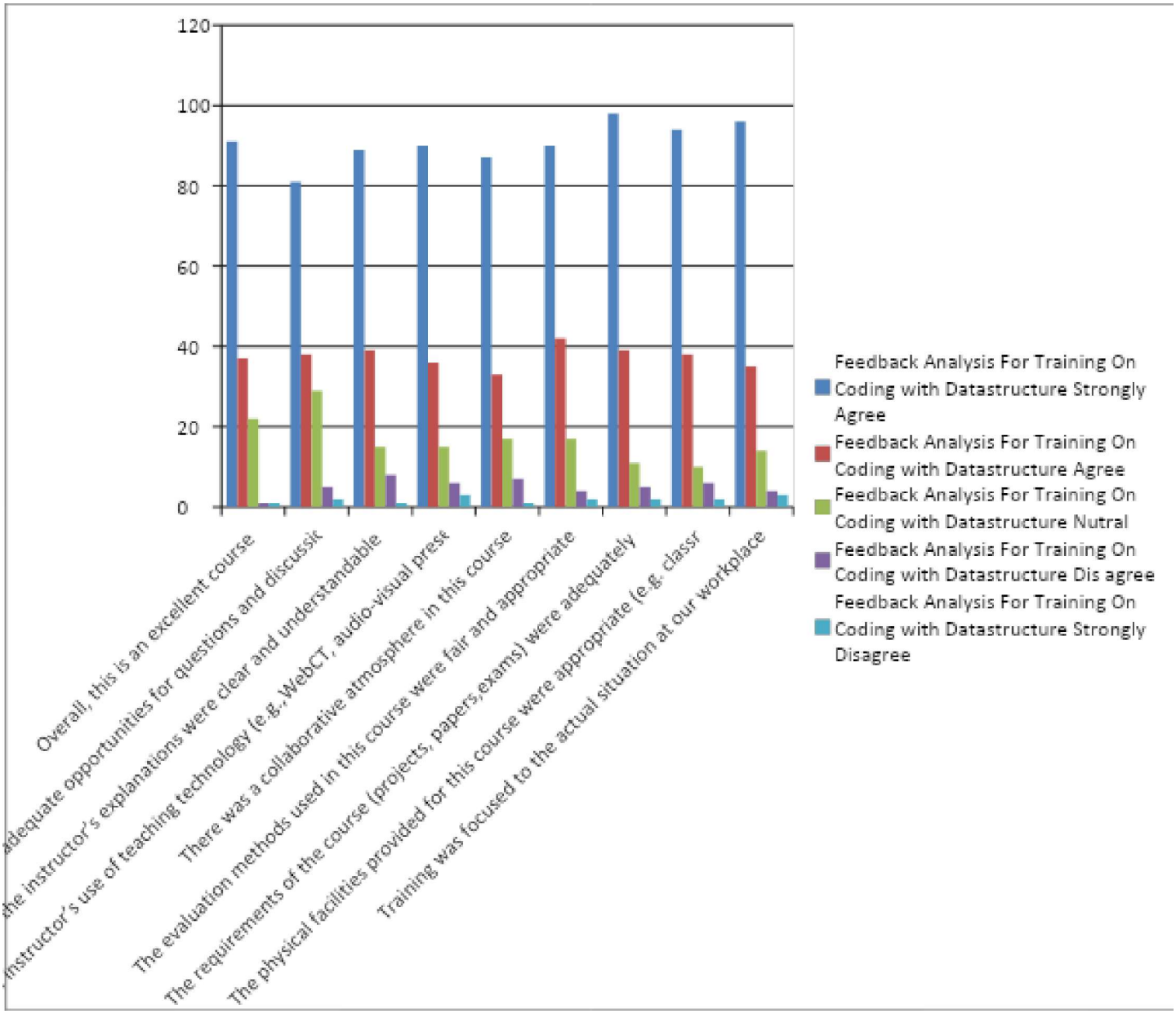
Venue: SIT ,Programming Lab I / SIT ,Programming Lab II

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction Data structure and c -programming skill and its application in industries in different areas.
- Students had done many programming by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned many things about C Programming skill.

Feedback analysis for the training:


120
100
80
60
40
20
0
Overall, this is an excellent course
dequate opportunities for questions and discussic
he instructor's explanations were clear and understandable
nstructor's use of teaching technology (e.g., WebCT, audio-visual presc
There was a collaborative atmosphere in this course
The evaluation methods used in this course were fair and appropriate
The requirements of the course (projects, papers,exams) were adequately
The physical facilities provided for this course were appropriate (e.g. classr
Training was focused to the actual situation at our workplace
Feedback Analysis For Training On Coding with Datastructure Strongly Agree
Feedback Analysis For Training On Coding with Datastructure Agree
Feedback Analysis For Training On Coding with Datastructure Nutral
Feedback Analysis For Training On Coding with Datastructure Dis agree
Feedback Analysis For Training On Coding with Datastructure Strongly Disagree

sl.	University Roll	Student	ENROLLED	PARTICIPATED
1	11900316009	YASH VARDHAN	Y	Y
2	11900316010	UTSA GHOSH	Y	Y
3	11900316011	TRIDIBESH NAYEK	Y	Y
4	11900316012	TANMOY DEY	Y	Y
5	11900316013	TANIYA CHATTERJEE	Y	Y
6	11900316014	SUSMITA CHOWDHURY	Y	Y
7	11900316015	SUSHMITA SARKAR	Y	Y
8	11900316016	SUPRATIV SENGUPTA	Y	Y
9	11900316017	SUDESHNA SAHA	Y	Y
10	11900316018	SUBHAM UPADHYAY	Y	Y
11	11900316019	SUBHAM GHOSH	Y	Y
12	11900316020	SOUVIK MONDAL	Y	Y
13	11900316021	SOUMYADEEP PAUL	Y	Y
14	11900316022	SHIVAM SINHA	Y	Y
15	11900316023	SHAYATA SARKAR	Y	Y
16	11900316024	SHANKHADEEP DEY	Y	Y
17	11900316025	SEJUTI ROY MUKHERJEE	Y	Y
18	11900316026	SAYANTANI DEY	Y	Y
19	11900316027	SAYANI MAITRA	Y	N
20	11900316028	SAURAV KUMAR VERMA	Y	Y
21	11900316029	SANDIPAN BHATTACHARJEE	N	N
22	11900316030	SANDEEP DAS	Y	Y
23	11900316031	SAGNIK KUMAR SINHA	Y	Y
24	11900316032	RUPESH RAJ	Y	Y
25	11900316034	RISHAV KUMAR MAHATO	Y	Y
26	11900316035	RAKTIM MONDAL	Y	Y
27	11900316036	RAJESH RANJAN PRASAD	Y	Y
28	11900316037	RAHUL GHOSH	Y	Y
29	11900316038	RAHUL BHOWAL	Y	Y
30	11900316039	PRITAM KUMAR DAS	Y	Y
31	11900316040	PRATIK PRADHAN	N	Y
32	11900316041	PRARTHITA GUHA	Y	Y
33	11900316042	PRALAY BISWAS	Y	Y
34	11900316043	POURABI SENGUPTA	Y	Y
35	11900316044	PANKAJ KUMAR TIWARI	Y	Y
36	11900316045	PALLAVI BHARDWAJ	Y	Y
37	11900316046	NILANJAN DEB	Y	Y
38	11900316047	NIKITA PRASAD	Y	Y
39	11900316048	MRIGANKA BHUSAN BARAI	Y	Y

40	11900316049	MD SHADAD REZWI	Y	Y
41	11900316050	MARMEN DOLMA SHERPA	N	N
42	11900316051	MANDIRA SAHA	Y	Y
43	11900316052	MADHURIMA YADAV	Y	Y
44	11900316053	LOK BAHADUR CHHETRI	Y	Y
45	11900316054	KUNDAN KUMAR	Y	Y
46	11900317001	Krishanu Bepari	Y	N
47	11900317002	Kaushik Das	Y	Y
48	11900317003	Aparajita Roy	Y	N

SILIGURI INSTITUTE OF TECHNOLOGY

Report for Training on JAVA,OOPS,C++,J2EE 9 days (45 hours) for 2nd year 2020 Pass Out Batch

Introduction :

Object-Oriented Programming or OOPs relates to languages that use objects in programming. Object-oriented programming intends to achieve real-world entities such as inheritance, hiding, polymorphism, etc in programming. The main purpose of OOP is to tie together the data and the functions that operate on them thus no other part of the code can enter this data except that function. Mainly, the course of the Object-Oriented Programming is intended to implement a broad study of the Java programming language. OOPs is an extension of the Java programming language

Objective of Training : The aim of the course was to give an overview of C++ and Java programming by solving several practical problems. The course also focused on the Object Oriented Programming concepts. One of the main objectives when programming with objects is to organize programs more effectively. Objects are the key programming concept for implementing: encapsulation, abstraction, inheritance and polymorphism

Features of the Object Oriented programming :

- Emphasis is on doing rather than procedure.
- programs are divided into what are known as objects.
- Data structures are designed such that they characterize the objects.
- Functions that operate on the data of an object are tied together in the data structure.
- Data is hidden and can't be accessed by external functions.
- Objects may communicate with each other through functions.
- New data and functions can be easily added.
- Follows bottom-up approach in program design.

Training Methodology:

- Hands on practice on approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: JAVA,OOPS,C++,J2EE

Resource Organization/ Name of Trainer: I & We

Date: 15/1/2018 to 17/1/2018, 19/3/2018 to 21/3/2018, 23/4/2018 to 25/4/2018

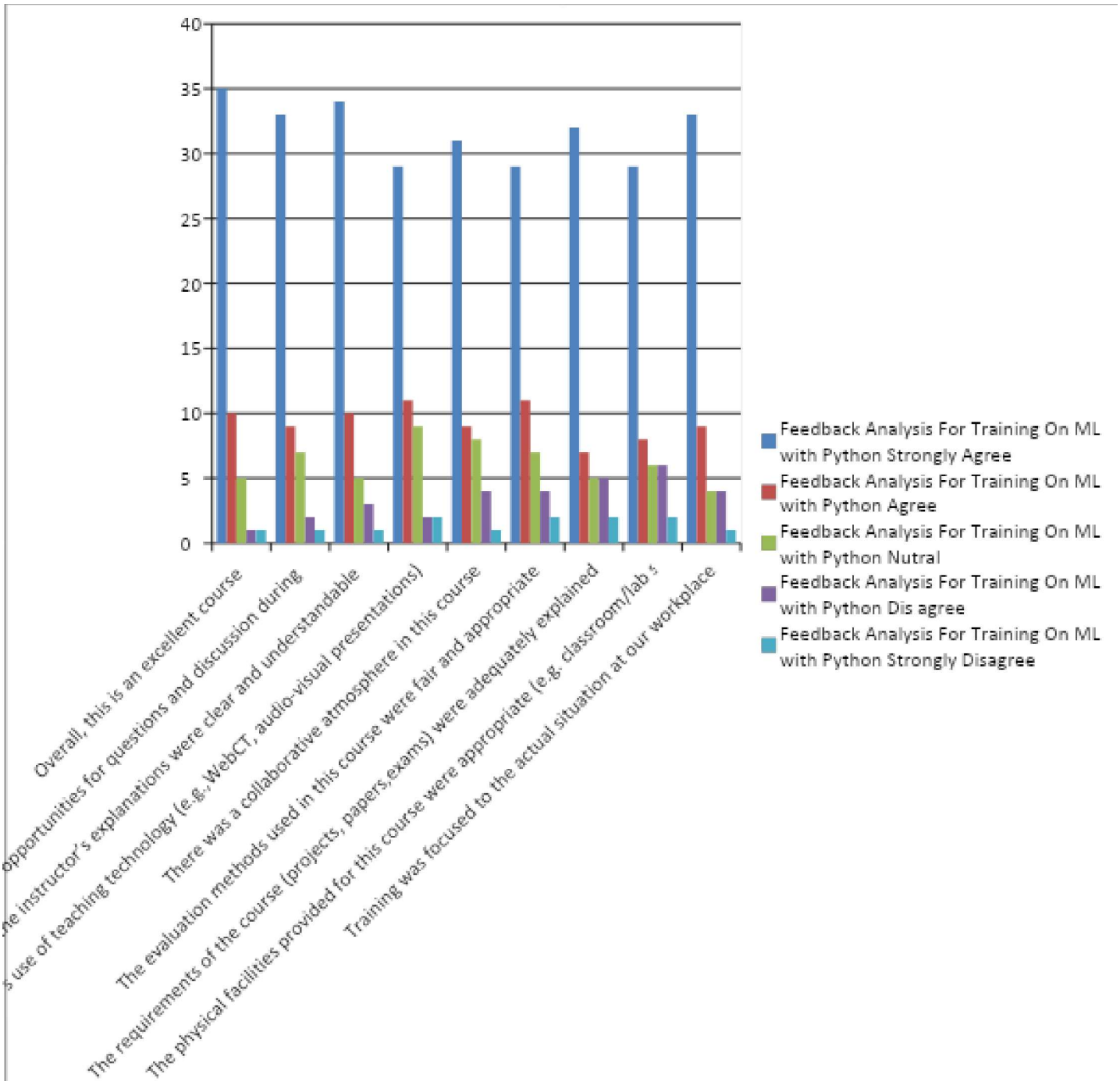
Venue: SIT ,Programming Lab II/SIT, Project Lab

Summary of the program:

The following points can be noted from the program.

- ❖ At the beginning of the training trainer has clearly described the basic Introduction to, OOPs programming and java its application in industries in different areas with the students.
- ❖ Students had done many programming by themselves during the trainings.
- ❖ During the training some students raised their queries and the trainer had explained all the quarries of the students.
- ❖ At the end of the training an online exam was conducted.
- ❖ As per the feedback received from the students end, the entire session was really fruitful
- ❖ and enjoyable and the students have learned many things about Java

Feedback analysis for the training:



SILIGURI INSTITUTE OF TECHNOLOGY

Training Report on Soft skill development program duration 19/7/2018 to 24/7/2018 for 4th Year 2019 Pass Out Batch

INTRODUCTION :

Soft Skills are the set of skills that a person should possess in order to face life's daily challenges successfully and to positively adapt to it. This would build the self confidence in an individual to handle life challenges in a more effective manner. In order to visualize a clearer picture on soft skills, let us now look at some more definitions,

1. Soft skills are the behaviors and characteristics that people demonstrate unconsciously and routinely (Daytona Beach Community College)

2. For success in the workplace, the contribution of soft skills are 85% and contribution of technical skills are 15%

3. Soft skills are learned through practice and experience (DDI International)

4. Soft skills will take you higher in your profession while giving you the technical skills to provide an efficient service

This module will introduce several important soft skills that are vital to overcome challenges in life Discuss the importance of soft skills with the participants. Arrange their ideas in an orderly manner.

TRAINING OBJECTIVES

The participants shall be able to achieve the following objectives at the end of this training

- To build and maintain interpersonal relationships.
- To make meaningful/appropriate decisions
- Efficient Communication
- To influence the professional development
- For effective, efficient and higher performance

Soft Skills Training sessions covered :

• Understand General Expectations from Corporate standpoint • Corporate attire

• Introduction during the interview process

• Mock Interviews

• An overview to communication in the interview process

• Communicate effectively with recruiters

Methodology

• Experiential Learning

• Ample use of role plays

• Share real life examples, share their experiences and also facilitate discussions to address Students' queries.

Training Details:

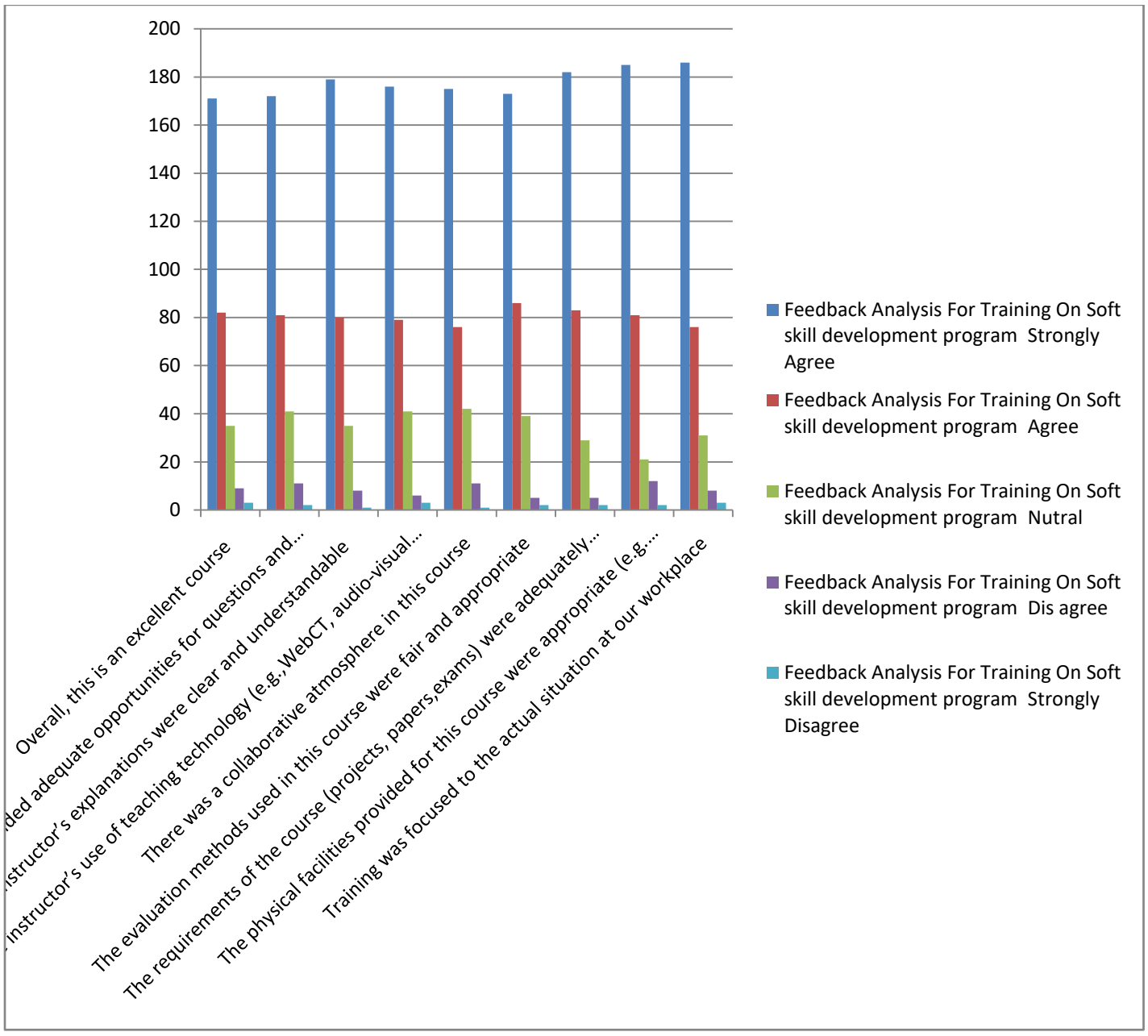
Title of Training: soft skills & life skills

Resource Organization/ Name of Trainer: Career Launcher

Date: 19/7/2018 to 24/7/2018

Venue: SIT Campus

Feedback Analysis of the Training on Soft skill Development Program :



11

Training onIoT

Introduction:

Internet of Things (IoT) is a network of physical objects or people called "things" that are embedded with software, electronics, network, and sensors that allows these objects to collect and exchange data. The goal of IoT is to extend to internet connectivity from standard devices like computer, mobile, tablet to relatively dumb devices like a toaster.IoT makes virtually everything "smart," by improving aspects of our life with the power of data collection, AI algorithm, and networks. The thing in IoT can also be a person with a diabetes monitor implant, an animal with tracking devices, etc. This IoT tutorial for beginners covers all the Basics of IoT. Students has learnt about Best practices for IoT in this Internet of Things in this training like.

- Design products for reliability and security
- Use strong authentication and security protocols.
- Energy efficient algorithms should be designed for the system to be active longer.

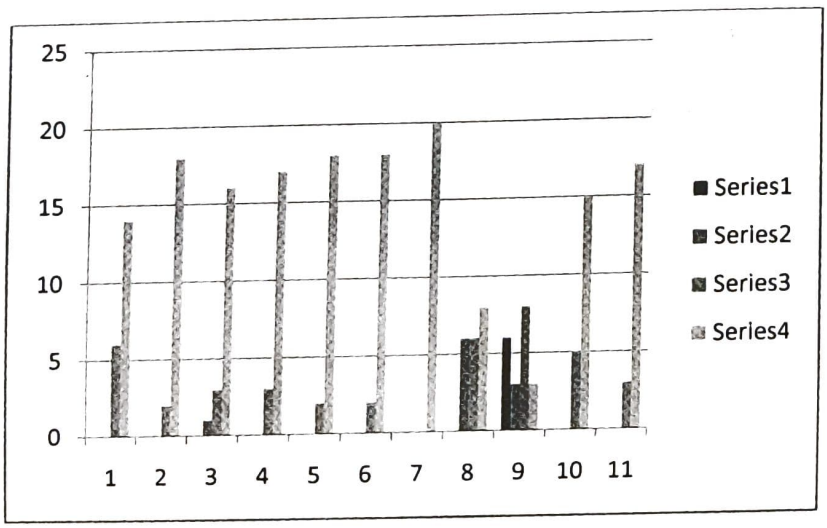
Objective:After attending the training, students should be able to understand:

1. IoT architecture and IoT Decision Framework
2. Configure Raspberry Pi, Understand Sensors, Actuators
3. Understand various IoT Networking Protocols which are mainly used to develop communication solutions.

Program Details:

Training Program: IoT
Resource Organization: I & We
Date: 18/1/2018 to 20/1/2018, 9/4/2018 to 11/4/2018, 26/4/2018 to 28/4/2018
Students who can attend: B. Tech (ECE) 6^{h} Sem-2019 PO.

Feedback Analysis



Report of Feedback Analysis1st Phase of Winter Training

Feedback for training was taken on 20thJan,2018 with the 3rd year students (2019 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Due to problem of Wi-Fi connectivity students faced difficulty to do their project work.
3. Trainers are very much friendly and energetic, so students are being encouraged for doing IoT projects.
4. Enough equipment is not provided.
5. Students want this type of training in upcoming semester.
6. Supplied material is not sufficient for all the students.

Report of Feedback Analysis 2nd and 3rd Phase of Winter Training

Feedback for training was taken on 13th April 2018 with the 3rd year students (2019 PO). Analysis of feedback are listed below:

1. Improper and inefficient internet facility.
2. Projector was not working properly, students faced huge problem.
3. Time duration should be more than 3 days.
4. This type of training should be started earlier of the semester.

SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

Brief Report on "Finishing School Program (FSP)" from 30/07/2018-03/08/2018 for 7th semester 2019 pass out Electrical Engineering students.

FSP program is conducted for the overall aptitude and personality development for the student required to appear for any interview which also impart also addition of value for the students. An aptitude test is a systematic means of testing a job candidate's abilities to perform specific tasks and react to a range of different situations. The tests each have a standardized method of administration and scoring, with the results quantified and compared with all other test takers. FSP will reduce the gap between the college and the industry; this will provide the essential knowledge and skill to work with confident. The students understand the industrial needs and expectations to face the interview confidently and secure the suitable position. Soft skills include: attitude, communication skills, time management, critical thinking and a slew of other categories that do not relate to intelligence. The students would be trained with qualitative skill, employment oriented dexterity, quantitative aptitude, soft skills and others required for their employment.

Objective of the training: Students will be explored to enhance business communication and interpersonal skills. They also acquire the skills to solve the aptitude questions for any recruitment drive in a structured manner.

Outcome of the program:

Students will be able to:

- Able to exhibit knowledge, skills and attitude required to deliver organizational goals.
- Able to recognize basic needs of Human Resource Management in a modern corporate world.
- Gain skills on solving different aptitude questions based on standard campus recruitment drive.

The program details are as below:

Title of training	***: Finishing School Program (F.S.P)***
Resource Organization	*:* Vista Mind
Date	***:30/07/2018-03/08/2017***
Name of Trainer	*:Mr. Devanjan Sarkar, Mr. Amit Kuma Dhar*
Venue	*:* Department of Electrical Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- In the very fast 1st session trainers have clearly demonstrated the need of skill of solving aptitude questions quickly, soft-skills, personality development, group discussions and industry interactions in their professional career.
- 1st half of every training day was conducted by Mr. Amit Kumar Dhar and he was engaging the students by teaching and practicing the quick solving ways of any aptitude problems.Mr. Dhar discussed suitable techniques for solving aptitude questions comprises of quantitative aptitude, logical, verbal and non-verbal reasoning .
- The students became very much interested and learn from the training.
- 2nd half of every training day was conducted by Mr. Devanjan Sarkar. In this session some fruitful

procedures for the overall grooming had been discussed. By taking students on a journey through choosing the right job into understanding the mind of the recruiter to make it there while building competence in elements like resume building, cover letters, email etiquette, interviews and follow-ups.

- Some course materials for placement aptitude papers have been given to the students for solving within the prescribed time limit and some easy and quick method was provided to the students.
- During the interactive session some students raised their queries and they motivated to arrange some group discussions/industry awareness/grooming sessions among themselves. Bright students are entitled to help the weak students in this case for establishing a team-work and ethics.
- In the concluding part trainers thanked all the students for their patience hearing .
- The program continued with about 26 students from 7th semester of Electrical Engineering Department.
- As per the feedback received from the students end the industrial training was fruitful and highly appreciable for the students and the instructor has demonstrated all the necessary topics in a healthy manner.

.....
H.O.D
Department of Electrical Engineering

.....
Jt- coordinators
Training and Placement subcommittee,
Department of Electrical Engineering

SILIGURI INSTITUTE OF TECHNOLOGY

Report for Training on Big Data/Hadoop during 18/01/2018 to 28/01/2018 for 3rd year 2018 pass out batch

Introduction

Hadoop is an open-source framework that allows to store and process big data in a distributed environment across clusters of computers using simple programming models. It is designed to scale up from single servers to thousands of machines, each offering local computation and storage. In the Training provides a quick introduction to Big Data, Map Reduce algorithm, and Hadoop Distributed File System.

Training Objective :

- Upon completion of this course, participants will be able to:
- Understand fundamentals of Concepts in Bigdata and hadoop etc
- Understand fundamentals of Hadoop etc.
- Be able to use the HDFS file system, debug and run simple Java programs for hdfs.
- Be aware of the important topics and principles of software development and write better &more maintainable code
- Be able to program using advanced Java topic like JDBC, Servlets and JSP .

What is Big Data?

Big data means really a big data, it is a collection of large datasets that cannot be processed using traditional computing techniques. Big data is not merely a data, rather it has become a complete subject, which involves various tools, techniques and frameworks.

Advantages of Hadoop :

- Hadoop framework allows the user to quickly write and test distributed systems. It is efficient, and it automatic distributes the data and work across the machines and in turn, utilizes the underlying parallelism of the CPU cores.
- Hadoop does not rely on hardware to provide fault-tolerance and high availability (FTHA), rather Hadoop library itself has been designed to detect and handle failures at the application layer.
- Servers can be added or removed from the cluster dynamically and Hadoop continues to operate without interruption.
- Another big advantage of Hadoop is that apart from being open source, it is compatible on all the platforms since it is Java based.

Training Methodology:

- Hands on practice approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: Big Data/Hadoop
Resource Organization/ Name of Trainer: I & We
Date: 18/01/2018to 28/01/2018

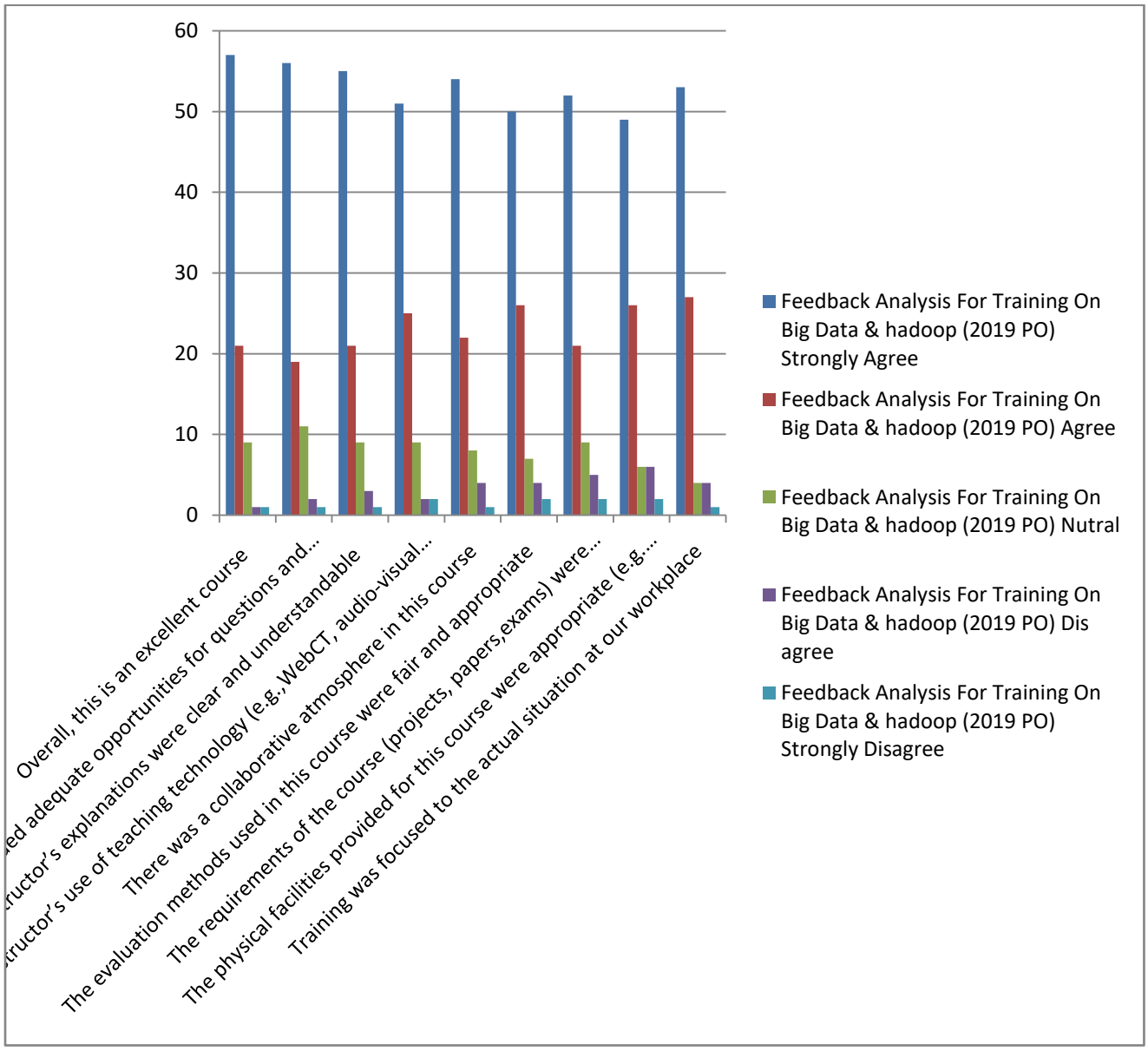
Venue: SIT, OT&UML Lab

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction to java its application in industries in different areas.
- Students had done many data analysis algorithm by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned framework of Hadoop.

Feedback analysis for the training:



Report for Training on Big Data/Hadoop during 18/01/2018 to 20/1/2018, 09/04/2018 to 11/04/2018, 26/04/2018 to 28/04/2018 for 3rd year 2019 pass out batch

Introduction

Hadoop is an open-source framework that allows to store and process big data in a distributed environment across clusters of computers using simple programming models. It is designed to scale up from single servers to thousands of machines, each offering local computation and storage. In the Training provides a quick introduction to Big Data, Map Reduce algorithm, and Hadoop Distributed File System.

Training Objective :

- Upon completion of this course, participants will be able to:
- Understand fundamentals of Concepts in Bigdata and hadoop etc
- Understand fundamentals of Hadoop etc.
- Be able to use the HDFS file system, debug and run simple Java programs for hdfs.
- Be aware of the important topics and principles of software development and write better &more maintainable code
- Be able to program using advanced Java topic like JDBC, Servlets and JSP .

What is Big Data?

Big data means really a big data, it is a collection of large datasets that cannot be processed using traditional computing techniques. Big data is not merely a data, rather it has become a complete subject, which involves various tools, techniques and frameworks.

Advantages of Hadoop :

- Hadoop framework allows the user to quickly write and test distributed systems. It is efficient, and it automatic distributes the data and work across the machines and in turn, utilizes the underlying parallelism of the CPU cores.
- Hadoop does not rely on hardware to provide fault-tolerance and high availability (FTHA), rather Hadoop library itself has been designed to detect and handle failures at the application layer.
- Servers can be added or removed from the cluster dynamically and Hadoop continues to operate without interruption.
- Another big advantage of Hadoop is that apart from being open source, it is compatible on all the platforms since it is Java based.

Training Methodology:

- Hands on practice approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: Big Data/Hadoop

Resource Organization/ Name of Trainer: TechBridge

Date: 18/01/2018 to 20/1/2018, 09/04/2018 to 11/04/2018, 26/04/2018 to 28/04/2018

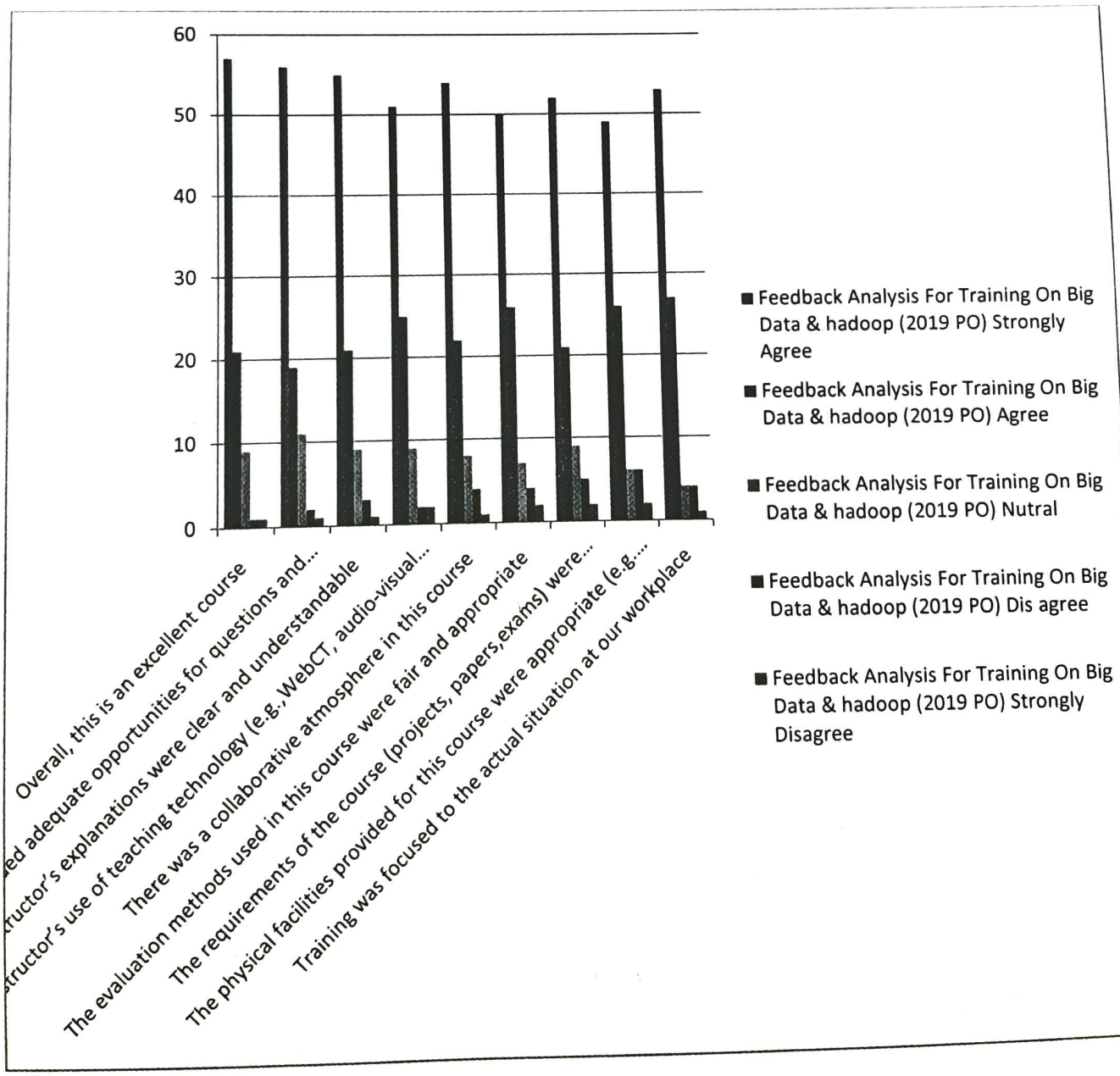
Venue: SIT, OT&UML Lab

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction to java its application in industries in different areas.
- Students had done many data analysis algorithm by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned framework of Hadoop.

Feedback analysis for the training:



2019-20

Training on Core and Advanced JAVA

Introduction:

Java is a high-level programming language originally developed by Sun Microsystems and released in 1995. Java runs on a variety of platforms, such as Windows, Mac OS, and the various versions of UNIX. This tutorial gives a complete understanding of Java. This reference will take you through simple and practical approaches while learning Java Programming language. This training is an introduction to Core Java. It starts with steps to install required software and editor. It has details of OOPS concept with detailed examples and great explanation. It covers important concepts of Core Java. It covers History of Java, Origin, Features of Java, OOPS, Array and Multidimensional arrays. What is class, Control structures, Object, Method and different types of constructor, String, Exception Handling and Collection Framework examples. Each topic is covered with detailed explanation and with examples. The dictionary meaning of **advance** is a forward movement or a development or improvement and the meaning of improve means thing that makes something better. All in all, we have to improve our basic knowledge to master in that particular field. Java is divided into two parts i.e. **Core Java (J2SE)** and **Advanced Java (JEE)**. The core Java part covers the fundamentals (data types, functions, operators, loops, thread, exception handling, etc.) of the Java programming language. It is used to develop general purpose applications. Whereas **Advanced Java** covers the standard concepts such as database connectivity, networking, Servlet, web-services, etc. In this section, we will discuss **what is advance Java, its benefit, uses, topics of advance Java**, and the **difference between core Java and advance Java.**

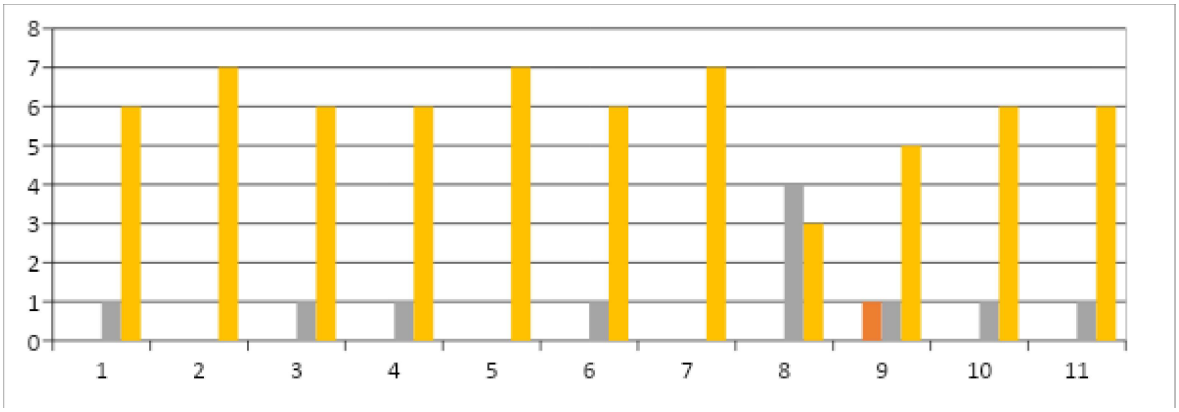
Course Objectives: After the training program, students will be able to:

1. Understand fundamentals of programming such as variables, conditional and iterative execution, methods, etc and be aware of the important topics and principles of software development.
2. Understand fundamentals of object-oriented programming in Java, including defining classes, invoking methods, using class libraries, etc.
3. Write a computer program to solve specified problems.
4. Understand the concept of **Client-Server architecture** for web- based applications.
5. Understand the working of HTTP protocol.

Program Details:

Training Program: Core and Advanced JAVA
Resource Organization: Ardent
Date: 26/08/2019 to 30/08/2019
Students who can attend: B. Tech (ECE) 5th Sem-2021 PO.

Feedback Analysis:



Report of Feedback Analysis:

Feedback for training was taken on 30th Aug 2019 with the 3rd year students (2021PO). Analysis of feedback is listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Online material should be provided for making clear the concept.
3. Due to problem of internet connection students faced difficulty to do their project work.

SN	ROLLNO	NAME OF THE STUDENT	ENROLLED	PARTICIPATED
1	11900317004	Vivek Kumar Thakur	Y	Y
2	11900317005	Vishal Choudhury	Y	N
3	11900317006	Tanmoy Bhowmick	Y	Y
4	11900317007	Tamajit Das	Y	N
5	11900317008	Supratim Nag	Y	Y
6	11900317010	Subham Kundu	Y	N
7	11900317011	Soumodeep Saha	Y	Y
8	11900317012	Sooumodipta Basu Majumder	Y	N
9	11900317013	Sohini Sarkar	Y	N
10	11900317014	Sneha Chakraborty	Y	N
11	11900317015	Shraddha Das	Y	Y
12	11900317016	Shalini Das	Y	N
13	11900317017	Samit Debnath	Y	N
14	11900317018	Sagarika Neogy	Y	N
15	11900317019	Rahul Biswas	Y	N
16	11900317020	Preety Prasad	Y	Y
17	11900317021	Pratik Goutam	Y	N
18	11900317022	Pranab Singha	Y	N
19	11900317023	Parna Majumdar	Y	Y
20	11900317024	Nitish Kumar Sah	N	N
21	11900317025	Nitin Raj	Y	N
22	11900317026	Nibedita Banik	Y	Y
23	11900317027	Lohit Sarkar	Y	N
24	11900317028	Komal Kanti Ganguly	Y	N
25	11900317029	Joy Sarkar	Y	N
26	11900317030	Jipsy Indra	Y	N
27	11900317031	Indrabati Chowdhury	Y	N
28	11900317032	Haimantika Mitra	Y	Y
29	11900317033	Gourab Dewan	Y	N
30	11900317034	Gargi Karmakar	Y	Y
31	11900317035	Eshita Roy	Y	Y
32	11900317036	Dilip Kumar Sah	Y	N
33	11900317037	Dikhsha Deb	Y	Y
34	11900317038	Dibyasree Pramanik	Y	N
35	11900317039	Debojit Ghosh	Y	N
36	11900317040	Debanjona Bhattacharjya	Y	N

37	11900317041	Budhaditya Dey	Y	N
38	11900317042	Brintik Majumder	Y	N
39	11900317043	Bidyut Kumar Barman	Y	Y
40	11900317044	Avishekh Sutradhar	Y	N
41	11900317045	Ashu Prasad Shah	Y	N
42	11900317046	Arpan Banerjee	Y	N
43	11900317047	Arijit Ghosh	Y	N
44	11900317048	Aniket Chhetri	Y	Y
45	11900317049	Amrita Ghosh	Y	N
46	11900317050	Aksheta Sarma	Y	N
47	11900317051	Abhradeep Das	Y	Y
48	11900317052	Abhishek Aich	Y	N
49	11900317053	Prabir Paul	Y	Y
50	11900318001	Debolina Chatterjee	Y	Y
51	11900318002	Chirayata Sarkar	Y	N
52	11900318003	Ayush Chakraborty	Y	Y

Report for the workshop on OOP with C++/JAVA on 11.03.19 to 15.03.19 for 2nd year 2021 pass out students.

The major motivating factor in the invention of object-oriented approach is to remove some of the flaws encountered in the procedural approach. OOP treats data as a critical element in the program development and does not allow it to flow freely around the system. It ties data more closely to the function that operate on it, and protects it from accidental modification from outside function. OOP allows decomposition of a problem into a number of entities called objects and then builds data and function around these objects. The data of an object can be accessed only by the function associated with that object. However, function of one object can access the function of other objects. OOP offers several benefits to both the program designer and the user. Object Orientation contributes to the solution of many problems associated with the development and quality of software products. The new technology promises greater programmer productivity, better quality of software and lesser maintenance cost. OOP has become one of the programming buzzwords today. There appears to be a great deal of excitement and interest among software engineers in using OOP. Applications of OOP are beginning to gain importance in many areas. The most popular application of object-oriented programming, up to now, has been in the area of user interface design such as window. Hundreds of windowing systems have been developed, using the OOP techniques. The facilities that C++ adds on to C are classes, inheritance, function overloading and operator overloading. These features enable creating of abstract data types, inherit properties from existing data types and support polymorphism, thereby making C++ a truly object-oriented language.

Objective of the training: Students will be explored to understand the basic areas and applications of OOP with C++/JAVA. They also acquire the skills to apply OOP in real time system, simulation and modeling, Decision support and office automation systems, Object-oriented data bases, Neural networks and parallel programming etc.

Outcome of the program:

Students will be able to:

- Able to exhibit knowledge to understand the preliminary concept about OOP with C++ /JAVA
- Able to apply OOP in real time, simulations, modeling, automation, office system etc.

The program details are as below:

Title of training ***: OOPs with C++/JAVA***

Resource Organization: Ardent Computech

Date *: 11/03/2019-15/03/2019*

Name of Trainer *: Mr. Debasish Sahoo*

Venue *:* Seminar Hall, Deptt. Of EE, S.I.T

Summary of the program:

The following points can be noted from the program

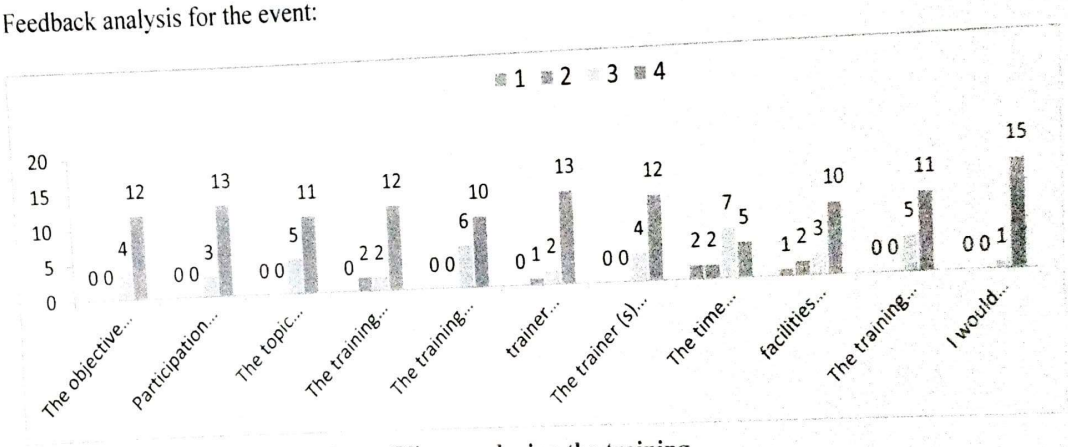
- At the beginning of the training and in day one and two Mr. Debasish Sahoo has clearly described the basic theories of C, C++, OOP, JAVA, its application in industries in different areas with the students.
- The students were asked to bring their laptops for programing and the trainer instructed and taught the students the different programming on the basis of the theories they have learned.
- Students had done many programing by themselves during the trainings.
- At the end of the training an online exam was conducted.

- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- The attendance record of the students throughout the training is given below:

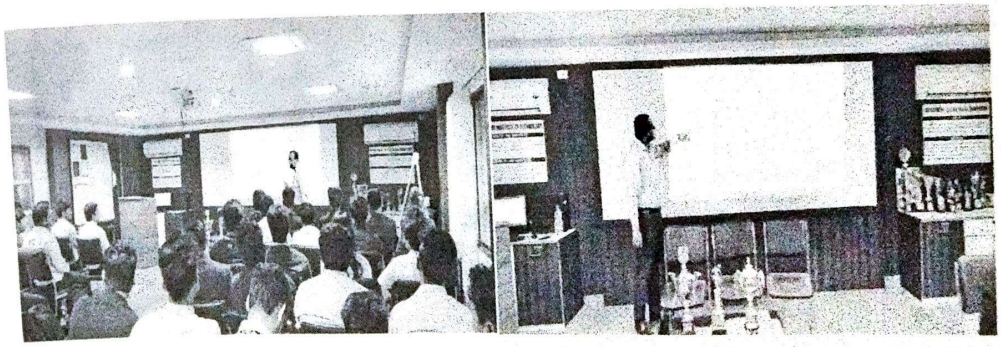
Attendance									
11/3/2019		12/3/2019		13/03/19		14/03/19		15/03/19	
1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half
41	36	25	6	28	21	22	21	22	18

- As per the feedback received from the students end, the entire session was really fruitful and enjoyable and this kind of training program may be for longer period in future for such better output.

Feedback analysis for the event:



Some Glimpses during the training



VISION OF THE DEPARTMENT:
To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:
To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

.....
H.O.D
Department of Electrical Engineering

.....
Jt- coordinators
Training and Placement subcommittee,
Department of Electrical Engineering

VISION OF THE DEPARTMENT:
To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:
To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

Training on OOPS with JAVA

Introduction:

Java is a high-level programming language originally developed by Sun Microsystems and released in 1995. Java runs on a variety of platforms, such as Windows, Mac OS, and the various versions of UNIX. This tutorial gives a complete understanding of Java. This reference will take you through simple and practical approaches while learning Java Programming language. This training is an introduction to Core Java. It starts with steps to install required software and editor. It has details of OOPS concept with detailed examples and great explanation. It covers important concepts of Core Java. It covers History of Java, Origin, Features of Java, OOPS, Array and Multidimensional arrays. What is class, Control structures, Object, Method and different types of constructor, String, Exception Handling and Collection Framework examples. Each topic is covered with detailed explanation and with examples.

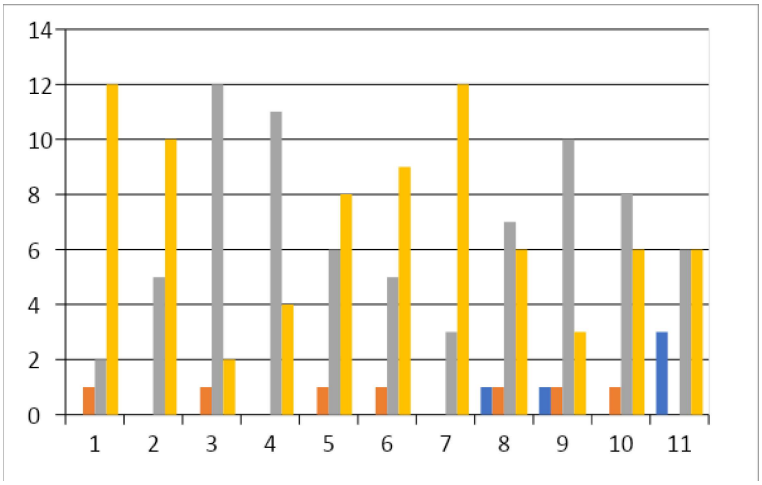
Course Objectives: After the training program, students will be able to:

1. To understand fundamentals of object-oriented programming in Java which includes defining classes, invoking methods, using class libraries.
2. To create Java application programs using sound OOP practices such as interfaces, APIs and error exception handling.
3. Using API to solve real world problems.

Program Details:

Training Program: OOPS with JAVA
Resource Organization: Ardent
Date: 16/09/2019 to 20/09/2019
Students who can attend: B. Tech (ECE) 5^{h} Sem-2020 PO.

Feedback Analysis:



REPORT of FEEDBACK ANALYSIS:

Feedback for training was taken on 20th Sep 2019 with the 3rd year students (2020 PO). Analysis of feedback are listed below:

1. Duration of training should be increased then students will be able to understand more clearly.
2. Laptop table should be provided, and More focus should be provided on practical.
3. Online material should be provided for making clear the concept.

4. Sitting arrangements should be improved.

sl.	University Roll	Student	ENROLLED	PARTICIPATED
1	11900316009	YASH VARDHAN	Y	Y
2	11900316010	UTSA GHOSH	Y	Y
3	11900316011	TRIDIBESH NAYEK	Y	Y
4	11900316012	TANMOY DEY	Y	Y
5	11900316013	TANIYA CHATTERJEE	Y	Y
6	11900316014	SUSMITA CHOWDHURY	Y	Y
7	11900316015	SUSHMITA SARKAR	Y	Y
8	11900316016	SUPRATIV SENGUPTA	Y	Y
9	11900316017	SUDESHNA SAHA	Y	Y
10	11900316018	SUBHAM UPADHYAY	Y	Y
11	11900316019	SUBHAM GHOSH	Y	Y
12	11900316020	SOUVIK MONDAL	Y	Y
13	11900316021	SOUMYADEEP PAUL	Y	Y
14	11900316022	SHIVAM SINHA	Y	Y
15	11900316023	SHAYATA SARKAR	Y	Y
16	11900316024	SHANKHADEEP DEY	Y	Y
17	11900316025	SEJUTI ROY MUKHERJEE	Y	Y
18	11900316026	SAYANTANI DEY	Y	Y
19	11900316027	SAYANI MAITRA	Y	N
20	11900316028	SAURAV KUMAR VERMA	Y	Y
21	11900316029	SANDIPAN BHATTACHARJEE	N	N
22	11900316030	SANDEEP DAS	Y	Y
23	11900316031	SAGNIK KUMAR SINHA	Y	Y
24	11900316032	RUPESH RAJ	Y	Y
25	11900316034	RISHAV KUMAR MAHATO	Y	Y
26	11900316035	RAKTIM MONDAL	Y	Y
27	11900316036	RAJESH RANJAN PRASAD	Y	Y
28	11900316037	RAHUL GHOSH	Y	Y
29	11900316038	RAHUL BHOWAL	Y	Y
30	11900316039	PRITAM KUMAR DAS	Y	Y
31	11900316040	PRATIK PRADHAN	N	Y
32	11900316041	PRARTHITA GUHA	Y	Y
33	11900316042	PRALAY BISWAS	Y	Y
34	11900316043	POURABI SENGUPTA	Y	Y
35	11900316044	PANKAJ KUMAR TIWARI	Y	Y
36	11900316045	PALLAVI BHARDWAJ	Y	Y

37	11900316046	NILANJAN DEB	Y	Y
38	11900316047	NIKITA PRASAD	Y	Y
39	11900316048	MRIGANKA BHUSAN BARAI	Y	Y
40	11900316049	MD SHADAD REZWI	Y	Y
41	11900316050	MARMEN DOLMA SHERPA	N	N
42	11900316051	MANDIRA SAHA	Y	Y
43	11900316052	MADHURIMA YADAV	Y	Y
44	11900316053	LOK BAHADUR CHHETRI	Y	Y
45	11900316054	KUNDAN KUMAR	Y	Y
46	11900317001	Krishanu Bepari	Y	N
47	11900317002	Kaushik Das	Y	Y
48	11900317003	Aparajita Roy	Y	N

Report for the training on basic C language with problem solving for 2nd year 2022 pass out students.

Training presents a prime opportunity to expand the knowledge base of all students. C can be considered as the mother of all languages and few reasons to consider learning C is that it makes the fundamentals of every student very strong. Apart from that, C offers a very flexible memory management. Memory is allocated statically, automatically, or dynamically in C programming with the help of malloc and calloc functions.

The following list illustrates the importance the C programming language, in no particular order:

- The C language is small and relatively easy to learn.
- C compilers can produce highly efficient code.
- C compilers and cross-compilers are widely available for a large array of hardware targets, from tiny eight-bit microcontrollers to giant mainframes. The availability of compilers enables highly portable source code to be written, when appropriate disciplines are followed.
- C, although it is a high-level language, provides access to some fundamental low-level concepts such as memory addresses and dynamic memory management - concepts that are hidden by many other languages.
- C has been used to implement (in whole or in part) several major operating systems and kernels, including Unix, Linux, MacOS, and Windows.
- C has been used to implement (in whole or in part) runtime environments supporting execution of platform-independent code (e.g., the Java Virtual Machine, the .NET CLR, etc.).
- C is often used to implement efficient libraries for less-efficient languages. For example, many libraries for Python are implemented in C.
- Compilers and interpreters for a wide variety of programming languages have been written in C.
- C remains the most popular programming language for programming microcontrollers in embedded systems.
- C has influenced the following programming languages: PHP, C++, LPC, Perl, Vala, Objective-C, PCASTL, AWK, JavaScript, Limbo, D, C#, MOO, SISAL, Pike, ECMAScript, Joy, C--, Ferite, Yoix, ColdC, Aikido Programming Language, Nickle, BitC, Processing, NWScript, SAC programming language, Vala, Kaya, MIVA Script, Corba IDL, QuakeC, S-Lang, Cilk, Unified Parallel C, Split-C, Claire, VisSim, Java, Go, AMPL, Alpoca, Draco, S, Alef, Game Maker Language, BAIL

Objective of the training: Students will be explored to understand the basic areas and applications of C.. They also acquire the skills to apply C in real time system, simulation, decision support ,automation systems, Object-oriented data bases, neural networks and parallel programming etc.

Outcome of the training:

Students will be able to:

- Able to exhibit knowledge to understand the preliminary concept about C programing.
- Able to apply C in real time problem solving.

The training details are as below:

Title of training : ***Basic C language with problem solving***
Resource Organization: Ardent Computech
Date : *26/08/2019-31/08/2019*
Name of Trainer : *Mr. Victor Bhattacharya*
Venue : Control system Lab, Deptt. Of EE, S.I.T

Summary of the training:

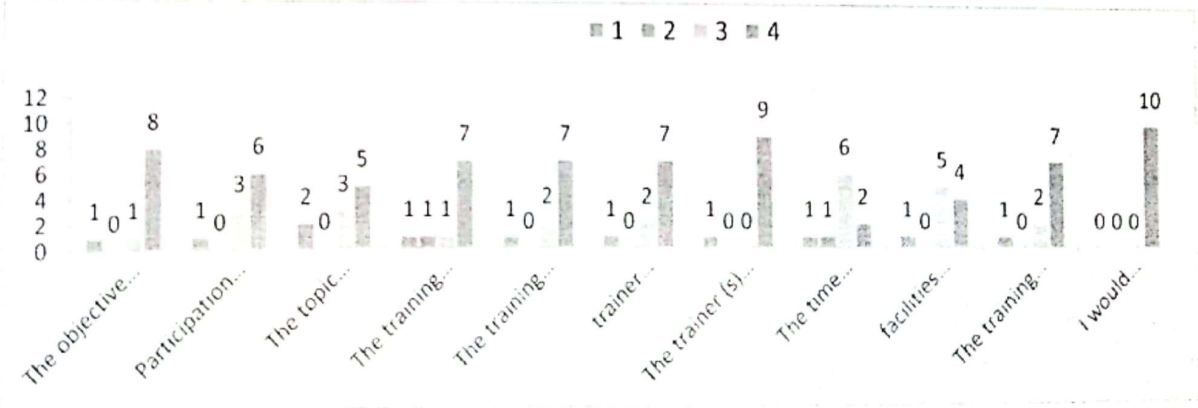
The following points can be noted from the program

- At the beginning of the training and in day one and two Mr. Victor Bhattacharya has clearly described the basic theories of C and its application in industries in different areas with the students.
- The students were asked to bring their laptops for programing and the trainer instructed and taught the students different levels programming with explanation very nicely.
- Students had done many programing by themselves during the trainings.
- At the end of the training an online exam was conducted.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- The feedback received from the students during and after the training were very satisfactory and the students attended and learned from the training with high interest.
- The attendance record of the students throughout the training is given below:

Attendance											
26/08/2019		27/08/2019		28/08/19		29/08/19		30/08/19		31/08/2019	
1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half
29	28	37	25	27	27	22	20	18	13	26	18

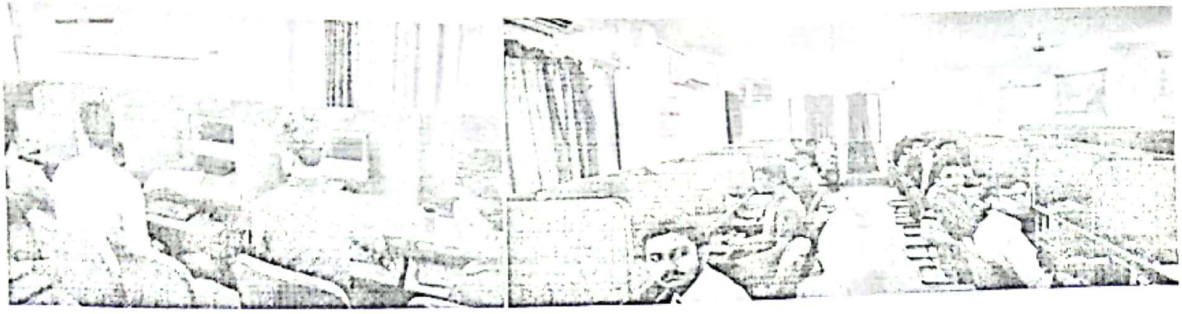
- As per the feedback received from the students end, the entire session was really fruitful and enjoyable and this kind of training program may be for longer period in future for such better output.

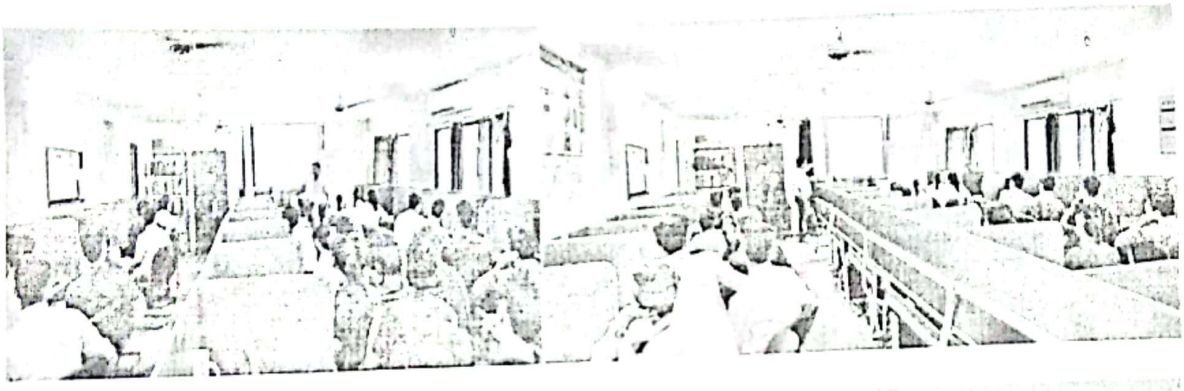
Feedback analysis for the event:



SILIGURI INSTITUTE OF TECHNOLOGY
ELECTRICAL ENGINEERING

Some Glimpses during the training





.....

H.O.D

Department of Electrical Engineering

.....

Jt- coordinators

Training and Placement subcommittee,

Department of Electrical Engineering

VISION OF THE DEPARTMENT:

To emerge as a leading Department of Electrical Engineering that caters to the latest needs of power sector, electrical & allied industry in the region.

MISSION OF THE DEPARTMENT:

To evolve as an innovative & globally competent Electrical Engineering department that contributes to the socio - economic growth of region by utilizing the advancement in Electrical Engineering by providing conducive learning and interactive environment to students and faculty.

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRICAL ENGINEERING

Feedback analysis for the training on Basic C language with problem solving

Duration: 26/08/2019-31/08/2019

3rd Sem EE, 2022 pass out batch

Training Organized by:T & P, S.I.T

Sl.no	TRAINING PROVIDER: Ardent Computech	Ratings(1 being lower & 4 being highest rating)				Totai No. of Respondents : 10			
	Feedback elements	1	2	3	4	% of rating 1	% of rating 2	% of rating 3	% of rating 4
1	The objective of the training were clearly defined	1	0	1	8	1.00	0.00	10.00	8.00
2	Participation & interaction were encouraged	1	0	3	6	1.00	0.00	30.00	6.00
3	The topic covered were relevant to me	2	0	3	5	2.00	0.00	30.00	5.00
4	The training was organized and easy to follow	1	1	1	7	1.00	10.00	10.00	7.00
5	The training experience will be helpful in my professional life	1	0	2	7	1.00	0.00	20.00	7.00
6	trainer created and maintained and environment for learning	1	0	2	7	1.00	0.00	20.00	7.00
7	The trainer (s) was knowledgable about the training topics	1	0	0	9	1.00	0.00	0.00	9.00
8	The time alloted for training was sufficient	1	1	6	2	1.00	10.00	60.00	2.00
9	facilities provided during the training were adequate and comfortable.	1	0	5	4	1.00	0.00	50.00	4.00
10	The training were satisfactory	1	0	2	7	1.00	0.00	20.00	7.00
11	I would recommend this training to my juniours	0	0	0	10	0.00	0.00	0.00	10.00

Sl. No.	Name	Signature

SILIGURI INSTITUTE OF TECHNOLOGY

Report for Training on Coding with data structure during 11/03/2019 to 15/03/2019 for 3rd year 2020 pass out batch

Introduction :

Data Structures is a concept a means of storing a collection of data. Computer Science is a concern with study of methods for effectively using a computer to solve problems. These can be solve by algorithms and data structures. Data Structures tells you what way the data as to store in computer memory and how to access the data efficiently. Many Applications are designed by data structures stack applications like page visited history in a web-browser, chain of method calls in the Java virtual machine or C++ Run-time environment etc Queue Application Like Waiting Lines, Multi-programming etc For many applications the choice of proper data structure is the only major decision involving the implementation. Majorly the database designing and internal implementation is done only by using Data Structures techniques.

Training Objective :

This Course main objective for the student to understand Analysis and Designing of the Algorithms and how the different data structures are used for efficient accessing of the data and Manipulation of the data at the end of the session we can able to Know different Kinds of data structures and we can able to provide different algorithms for time and space complexity.

TRAINING OUTCOME:

After completed the training student will able to

- Understand the concept of data structures and its relevance in computer science.
- Familiarize with selected linear and nonlinear data structures.
- Enhance skill in programming.

Training Methodology:

- Hands on practice approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: Coding with data structure

Resource Organization/ Name of Trainer: Ardent

Date: 11/03/2019 to 15/03/2019

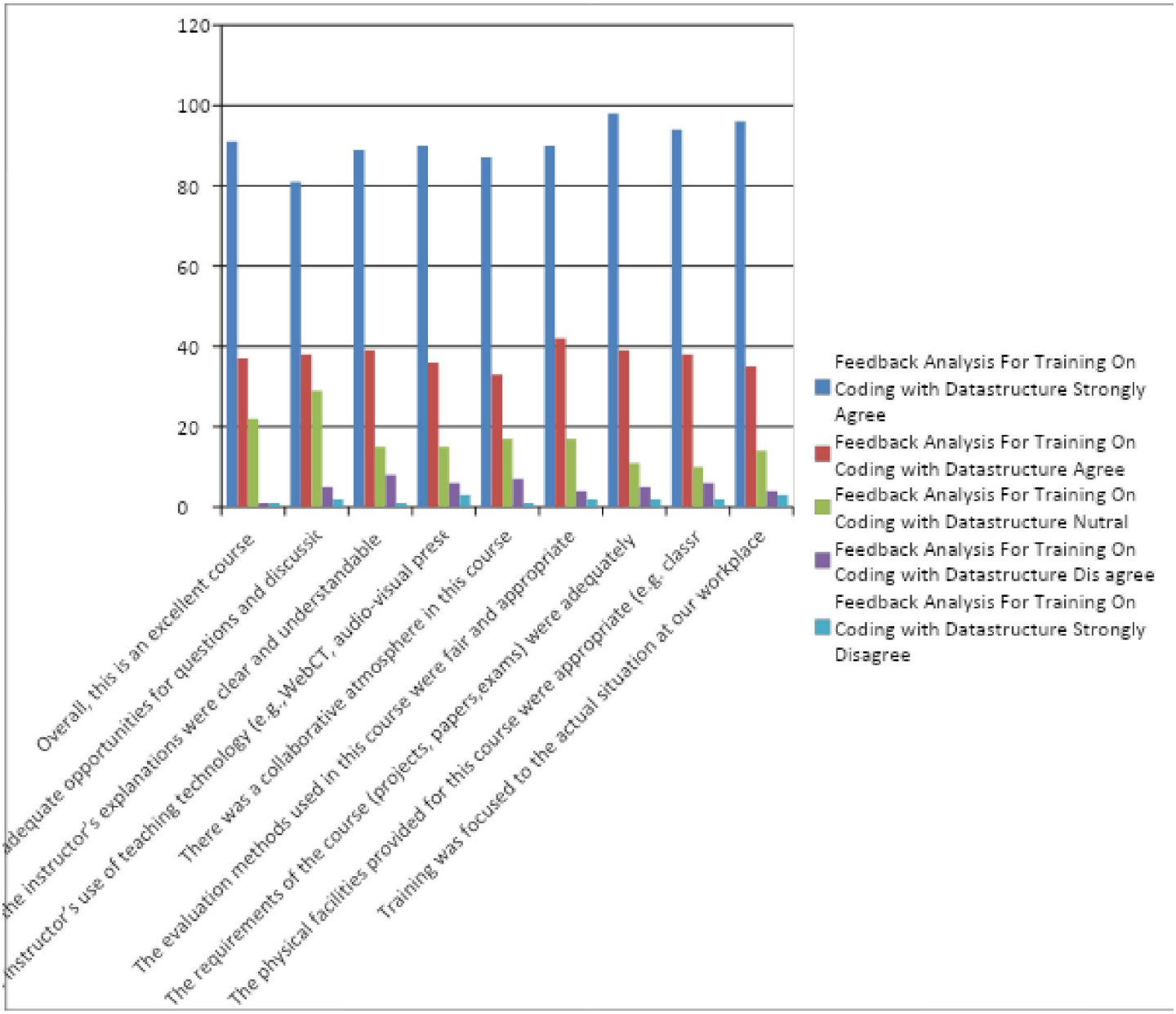
Venue: SIT ,Programming Lab I / SIT ,Programming Lab II

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction Data structure and programming skill and its application in industries in different areas.
- Students had done many programming by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned many things about Programming skill.

Feedback analysis for the training:


120
100
80
60
40
20
0
Overall, this is an excellent course
dequate opportunities for questions and discussic
he instructor's explanations were clear and understandable
nstructor's use of teaching technology (e.g., WebCT, audio-visual presc
There was a collaborative atmosphere in this course
The evaluation methods used in this course were fair and appropriate
The requirements of the course (projects, papers,exams) were adequately
The physical facilities provided for this course were appropriate (e.g. classr
Training was focused to the actual situation at our workplace
Feedback Analysis For Training On Coding with Datastructure Strongly Agree
Feedback Analysis For Training On Coding with Datastructure Agree
Feedback Analysis For Training On Coding with Datastructure Nutral
Feedback Analysis For Training On Coding with Datastructure Dis agree
Feedback Analysis For Training On Coding with Datastructure Strongly Disagree

26

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

Report for the training on E-Tabs conducted during 17/08/2020 to 31/08/2020 for 2021 pass out CE students.

Objective of the training: Students will be proficient in the ETABS tool and able to perform different structural design and analysis case studies/projects.

Outcome of the program:

Students will be able to:

- Begin with fundamentals and then move on to the professional tools.
- Learn complete the ETABS interface, how to perform different types of analysis, post-process the results, and prepare reports.

The program details are as below:

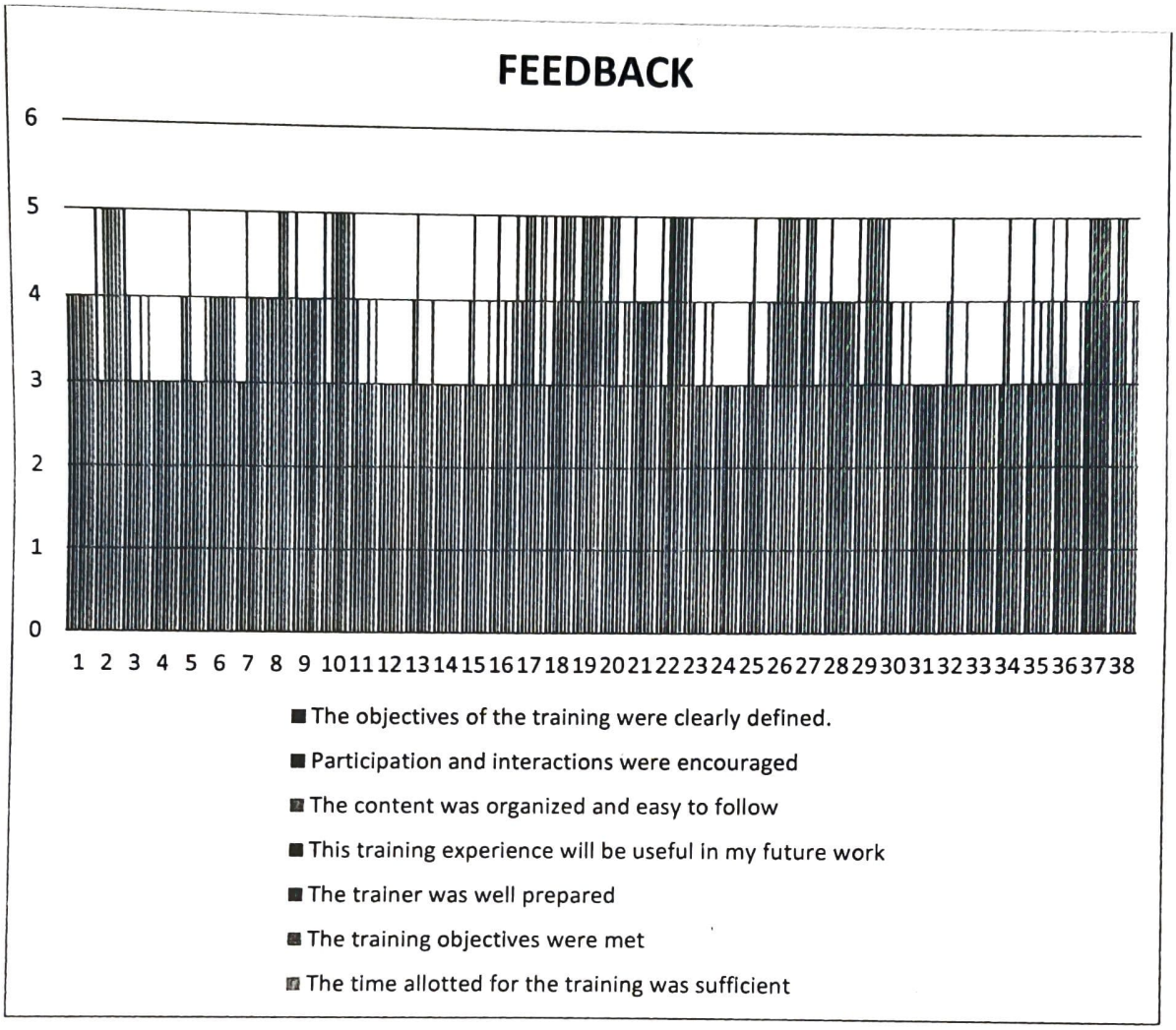
Title of training : E-Tabs
Rersource Organization: Sikharthy
Date : 17/08/2020 to 31/08/2020
Platform : Online

Summary of the program:

The following points can be noted from the program

- At the beginning they were introduced to fundamental knowledge
- The topics discussed and taught during the intermediate days of the training were 3D object based modeling and visualization tools, linear and nonlinear analytical power, design capabilities for a wide range of materials, and graphic displays, reports, and schematic drawings
- Students designed and analysed structures during the session
- At the end of the training an online exam was conducted
- As per the feedback received from the students end, the entire session was a real success and students learned and enjoyed the session on ETABS

Feedback analysis for training:



HOD, Dept. of Civil Engineering

Departmental T&P Coordinator
Dept. of Civil Engineering

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

Report for the training on STAADPRO conducted during 11/03/2019 to 15/03/2019 for 2020 pass out CE students.

Objective of the training: Students will be proficient in STAAD.Pro tool and able to perform different structural design and analysis case studies / projects.

Outcome of the program:

Students will be able to:

- Begin with basics and then move on to the professional tools.
- Effectively learn Bentley STAAD.Pro on account of learning paths and modules defined and developed by an industrial working professionals and Bentley Systems.

The program details are as below:

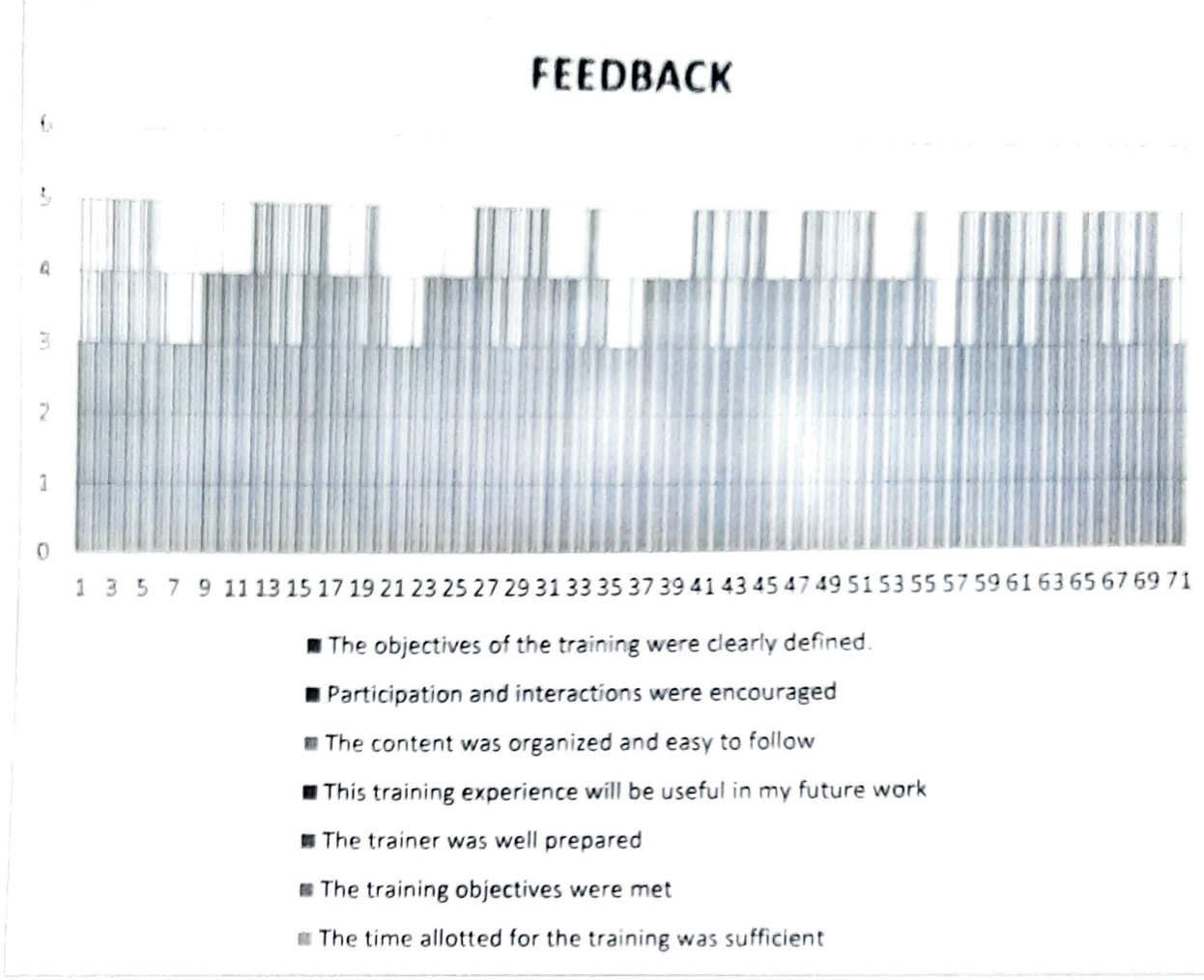
Title of training : STAAD.Pro
Rersource Organization: Ardent
Date : 11/03/2019 to 15/03/2019
Venue : Department of Civil Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- At the beginning they were introduced to the STAAD.Pro and given an elaborated idea of its application in the different areas of the industry
- The topics discussed and taught during the intermediate days of the training were basics, analysis of a structure, designing of the analysed structure, load combination, complete design and analysis of a building with seismic load and wind load.
- Students analyses many structures during the session
- At the end of the training an online exam was conducted
- As per the feedback received from the students end, the entire session was a real success and students learned and enjoyed the session on STAAD.Pro .

Feedback analysis for training:



HOD, Dept. of Civil Engineering

Departmental T&P Coordinator
Dept. of Civil Engineering

22

SILIGURI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

Report for the training on REVIT conducted during 26/08/2019 to 30/08/2019 for 2021 pass out CE students.

Objective of the training: Students will be provided with a 360-degree perspective to modelling and drafting a structure aided with design provisions.

Outcome of the program:

Students will be able to:

- Begin with basics and then move on to the professional tools.
- Effectively learn rendering, phasing and design options, plus advanced

The program details are as below:

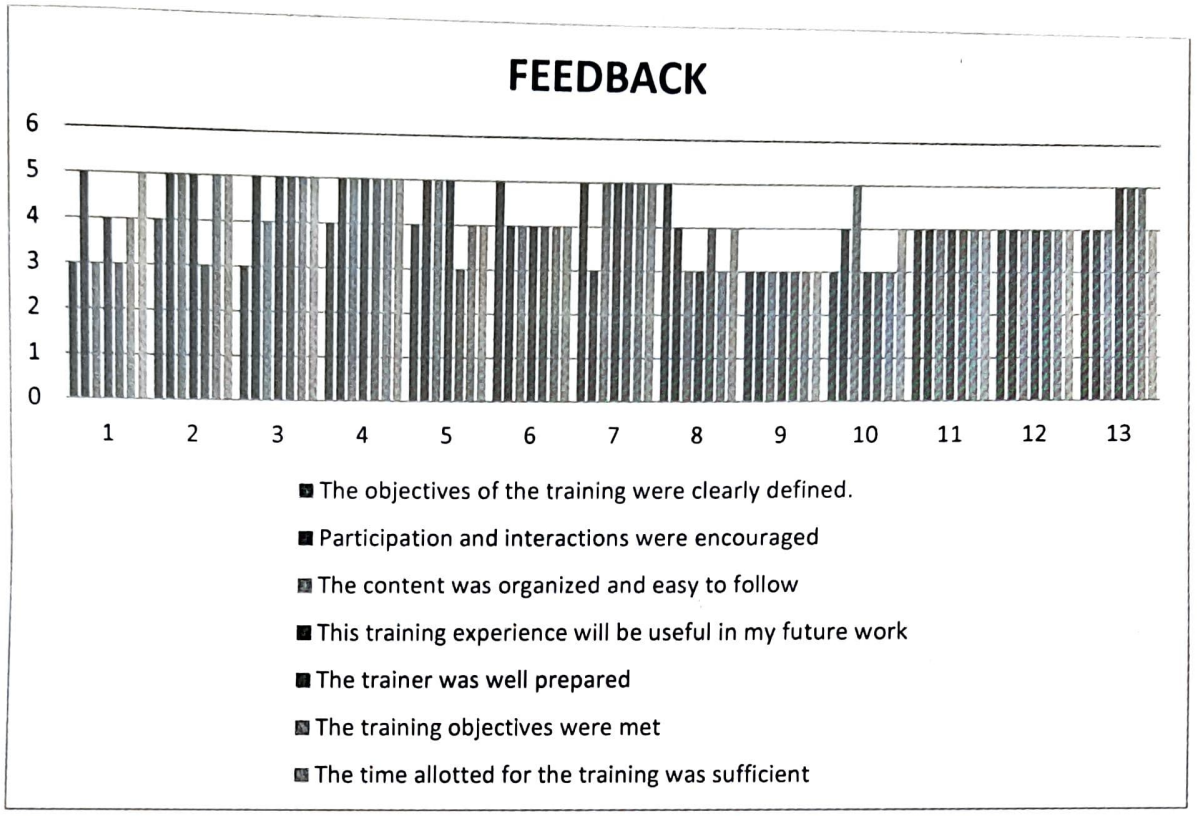
Title of training : REVIT
Rersource Organization: Ardent
Date : 26/08/2019 to 30/08/2019
Venue : Dept. of Civil Engineering, Siliguri Institute of Technology

Summary of the program:

The following points can be noted from the program

- At the beginning they were introduced to the REVIT and given an elaborated idea of its application in the different areas of the industry
- The topics discussed and taught during the intermediate days of the training were building information modelling, project model and design elements, project design and presentation methods, project design with building codes.
- Students modeled structures during the session
- At the end of the training an online exam was conducted
- As per the feedback received from the students end, the entire session was a real success and students learned and enjoyed the session on REVIT

Feedback analysis for training:



HOD, Dept. of Civil Engineering

Departmental T&P Coordinator
Dept. of Civil Engineering

SILIGURI INSTITUTE OF TECHNOLOGY

Report for Training on advanced JAVA during 01/08/2020 to 12/08/2020 for 3rd year 2017 pass out batch

Introduction:

Apart from University requirement, Java is also a pre-requisite for learning latest technologies like Android and Big Data. In order to prepare and make students ready for industry Computer science department has carved out a course that specifically aligns with industry requirements and conducted by industry experts.

The course 'OOPS with Java' was designed as 12 days online training conducted for 2nd year CSE and IT students. In this training session students learned basic object oriented concepts such as inheritance, encapsulation, and abstraction. They learn how to create and use simple Java classes containing arrays, loops, and conditional constructs. They also learn to use and manipulate object references, and to write simple error handling code. They also learned some advance topic like JDBC connectivity , JSP, Servlates.

Training Objective :

Upon completion of this course, participants will be able to :

• Understand fundamentals of Java programming such as variables, conditional and iterative execution, methods, etc

• Understand fundamentals of object-oriented programming using Java, including defining classes, invoking methods, using class libraries, etc.

• Be able to use the Java SDK environment to create, debug and run simple Java programs

• Be aware of the important topics and principles of software development and write better &more maintainable code

• Be able to program using advanced Java topic like JDBC, Servlets and JSP .

Training Methodology:

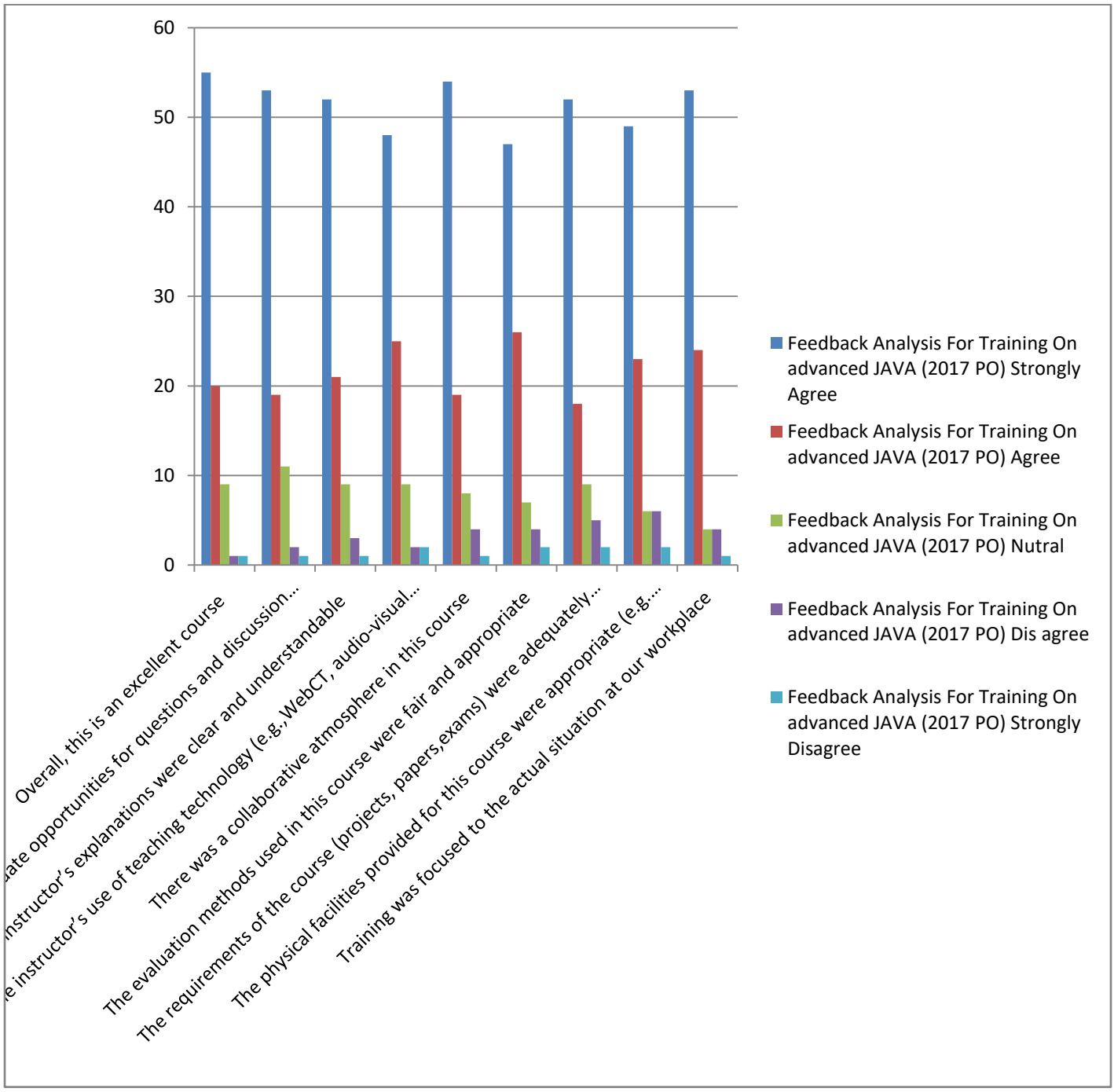
- Online on approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of programming techniques through a Project.

Training Details:

Title of Training: Advanced JAVA
Resource Organization/ Name of Trainer: NSIC
Date: 01/08/2016 to 12/08/2016
Venue: SIT, Programming Lab I/ SIT, Programming Lab II/OT&UML Lab
Summary of the program:
The following points can be noted from the program.

- ❖ At the beginning of the training trainer has clearly described the basic Introduction to, OOPs programming and java its application in industries in different areas with the students.
- ❖ Students had done many programming by themselves during the trainings.
- ❖ During the training some students raised their queries and the trainer had explained all the quarries of the students.
- ❖ At the end of the training an online exam was conducted.
- ❖ As per the feedback received from the students end, the entire session was really fruitful
- ❖ and enjoyable and the students have learned many things about Java

Feedback analysis for the training:



Report for Training on Data Science with ML using Python during 04/11/2020 to 13/11/2020 for 3rd year 2022 Pass Out Batch

Introduction :

Artificial Intelligence (AI), Machine Learning (ML) and Data Science (DS) are the pillars of the fourth industrial revolution. ML is an application of AI which allows computers to automatically learn from data without being explicitly programmed. Python has been designed with the provision for creating Machine Learning algorithms. Python is preferred as the best and robust platform for Machine Learning systems. Python also has numerous libraries for machine learning, data manipulation and analysis as well as a very active development community that continuously updates and creates new packages. It has been adopted by a wide variety of industries and applications including Data Science, Machine Learning, Data Analytics, Predictive Analytics, Business Intelligence and Web Analytics. This workshop aims to explore Python Programming right from installation, fundamentals to Machine Learning algorithms.

The Training session covered the basic algorithm that helps us to build and apply prediction functions with an emphasis on practical applications. **Training Objectives**

Main objectives of training were to learn:

- How to determine and measure program complexity,
- Python Programming
- ML Library Scikit, Numpy , Matplotlib, Pandas , Theano , TensorFlow
- Statistical Math for the Algorithms.
- Learning to solve statistics and mathematical concepts.
- Supervised and Unsupervised Learning
- Classification and Regression
- ML Algorithms
- Machine Learning Programming and Use Cases.

The outcomes of this workshop are:

- Understand the components of a Machine Learning algorithm.
- Apply Machine Learning tools to build and evaluate predictors
- How Machine Learning uses computer algorithms to search for patterns in data
- How to uncover hidden themes in large collections of documents using topic modeling
- How to prepare data, deal with missing data and create custom data analysis solutions for different industries
- Familiarity with Python installation, syntax and design

Training Details:

TITLE : Data Science with ML using Python
DATE : 04/11/2020 t0 13/11/2020
VENUE : Online Mode
PARTICIPANTS : 3rd year CSEand IT students
TRAINER/ ORGANIZATION : Ardent

Why Python Is a Perfect Language for Machine Learning?

1. **A great library ecosystem** - A great choice of libraries is one of the main reasons Python is the most popular programming language used for AI. A library is a module or a group of modules published by

different sources which include a pre-written piece of code that allows users to reach some functionality or perform different actions. Python libraries provide base level items so developers don't have to code them from the very beginning every time. ML requires continuous data processing, and Python's libraries let us access, handle and transform data. These are some of the most wide spread libraries we can use for ML and AI:

- Scikit-learnfor handling basic ML algorithms like clustering, linear and logistic regressions,regression, classification, and others.
- Pandasfor high-level data structures and analysis. It allows merging and filtering of data, aswell as gathering it from other external sources like Excel, for instance.
- Kerasfor deep learning. It allows fast calculations and prototyping, as it uses the GPU inaddition to the CPU of the computer.
- TensorFlowfor working with deep learning by setting up, training, and utilizing artificialneural networks with massive datasets.
- Matplotlibfor creating 2D plots, histograms, charts, and other forms of visualization.
- NLTK f or working with computational linguistics, natural language recognition, and processing.
- Scikit-imagefor image processing.
- PyBrainfor neural networks, unsupervised and reinforcement learning.
- Caffefor deep learning that allows switching between the CPU and the GPU
- StatsModelsfor statistical algorithms and data exploration.

In the PyPI repository, we can discover and compare more python libraries.

2. **A low entry barrier** -Working in the ML and AI industry means dealing with a bunch of data that we need to process inthe most convenient and effective way. The low entry barrier allows more data scientists to quickly pick up Python and start using it for AI development without wasting too much effort into learning the language.

In addition to this, there's a lot of documentation available, and Python's community is always there to help out and give advice

3. Flexibility- Python for machine learning is a great choice, as this language is very flexible:
   - It offers an option to choose either to use OOPs or scripting.
   - There's also no need to recompile the source code, developers can implement any
   - changes and quickly see the results.
   - Programmers can combine Python and other languages to reach their goals.
4. **Good Visualization Options**- For AI developers, it's important to highlight that in artificial intelligence, deep learning, and machine learning, it's vital to be able to represent data in a human-readable format. Libraries like Matplotlib allow data scientists to build charts, histograms, and plots for better data comprehension, effective presentation, and visualization. Different application programming interfaces also simplify the visualization process and make it easier to create clear reports.
5. **Community Support**- It's always very helpful when there's strong community support built around the programming language. Python is an open-source language which means that there's a bunch of resources open for programmers starting from beginners and ending with pros. A lot of Python documentation is available online as well as in Python communities and forums, where programmers and machine learning developers discuss errors, solve problems, and help each other out. Python programming language is absolutely free as is the variety of useful libraries and tools.
6. **Growing Popularity**-As a result of the advantages discussed above, Python is becoming more and more popular among data scientists. According to Stack Overflow, the popularity of Python is predicted to grow until 2020,at least. This means it's easier to search for developers and replace team players if required. Also, the cost of their work maybe not as high as when using a less popular programming language Data Preprocessing, Analysis & Visualization Machine Learning algorithms don't work so well with processing

raw data. Before we can feed such data to an ML algorithm, we must preprocess it. We must apply some transformations on it. With data preprocessing, we convert raw data into a clean data set.

To perform data this, there are 7 techniques –

1. Rescaling Data -For data with attributes of varying scales, we can rescale attributes to possess the same scale. We rescale attributes into the range 0 to 1 and call it normalization. We use the Min Max Scaler class from scikit-learn. This gives us values between 0 and 1.
2. Standardizing Data -With standardizing, we can take attributes with a Gaussian distribution and different means and standard deviations and transform them into a standard Gaussian distribution with a mean of 0 and a standard deviation
3. Normalizing Data -In this task, we rescale each observation to a length of 1 (a unit norm). For this, we use the Normalizer class.
4. Binarizing Data -Using a binary threshold, it is possible to transform our data by marking the values above it 1 and those equal to or below it, 0. For this purpose, we use the Binarizer class.
5. Mean Removal-We can remove the mean from each feature to center it on zero.
6. One Hot Encoding -When dealing with few and scattered numerical values, we may not need to store these. Then, we can perform One Hot Encoding. For k distinct values, we can transform the feature into a k-dimensional vector with one value of 1 and 0 as the rest values.
7. Label Encoding -Some labels can be words or numbers. Usually, training data is labelled with words to make it readable. Label encoding converts word labels into numbers to let algorithms work on them

Machine Learning Algorithms :

There are many types of Machine Learning Algorithms specific to different use cases. As we work with datasets, a machine learning algorithm works in two stages. We usually split the data around 20%-80% between testing and training stages. Under supervised learning, we split a dataset into a training data and test data in Python ML. Followings are the Algorithms of Python Machine Learning -

1. Linear Regression-Linear regression is one of the supervised Machine learning algorithms in Python that observes continuous features and predicts an outcome. Depending on whether it runs on a single variable or on many features, wecan call it simple linear regression or multiple linear regression .This is one of the most popular Python ML algorithms and often under-appreciated. It assigns optimal weights to variables to create a line ax+b to predict the output. We often use linear regression to estimate real values like a number of calls and costs of houses based on continuous variables. The regression line is the best line that fits Y=a*X+b to denote a relationship between independent and dependent variables.

2. Logistic Regression -Logistic regression is a supervised classification is unique Machine Learning algorithms in Python that find sits use in estimating discrete values like 0/1, yes/no, and true/false. This is based on a given set of independent variables. We use a logistic function to predict the probability of an event and this gives us an output between 0 and 1. Although it says 'regression', this is actually a classification algorithm. Logistic regression fits data into a logit function and is also called logit regression.

3. Decision Tree -A decision tree falls under supervised Machine Learning Algorithms in Python and comes of use for both classification and regression- although mostly for classification. This model takes an instance, traverses the tree, and compares important features with a determined conditional statement. Whether it descends to the left child branch or the right depends on the result. Usually, more important features are closer to the root. Decision Tree, a Machine Learning algorithm in Python can work on both categorical and continuous dependent variables. Here, we split a population into two or more homogeneous sets. Tree models where the target variable can take a discrete set of values are called classification trees; in these tree structures, leave represent class labels and branches represent conjunctions of features that lead to those class labels. Decision trees where the target variable can take continuous values (typically real numbers) are called regression trees.

4. Support Vector Machine (SVM)-SVM is a supervised classification is one of the most important Machines Learning algorithms in Python, that plots a line that divides different categories of your data. In this ML algorithm,

we calculate the vector to optimize the line. This is to ensure that the closest point in each group lies farthest from each other. While you will almost always find this to be a linear vector, it can be other than that. An SVM model is are presentation of the examples as points in space, mapped so that the examples of the separate categories are divided by a clear gap that is as wide as possible. In addition to performing linear classification, SVMs can efficiently perform a non-linear classification using what is called the kernel trick, implicitly mapping their inputs into high-dimensional feature spaces. When data are unlabeled, supervised learning is not possible, and an unsupervised learning approach is required, which attempts to find natural clustering of the data to groups, and then map new data to these formed groups.

5. Naïve Bayes Algorithm - Naive Bayes is a classification method which is based on Bayes' theorem. This assumes independence between predictors. A Naive Bayes classifier will assume that a feature in a class is unrelated to any other. Consider a fruit. This is an apple if it is round, red, and 2.5 inches in diameter. A Naive Bayes classifier willsay these characteristics independently contribute to the probability of the fruit being an apple. This is even if features depend on each other. For very large data sets, it is easy to build a Naive Bayesian model. Not only is this model very simple, it performs better than many highly sophisticated classification methods. Naïve Bayes classifiers are highly scalable, requiring a number of parameters linear in the number of variables (features/predictors) in a learning problem. Maximum-likelihood training can be done by evaluating a closed-form expression, which takes linear time, rather than by expensive iterative approximation as used for many other types of classifiers.

6. kNN Algorithm -This is a Python Machine Learning algorithm for classification and regression- mostly for classification. This is a supervised learning algorithm that considers different centurions and uses a usually Euclidean function to compare distance. Then, it analyzes the results and classifies each point to the group to optimize it to place with all closest points to it. It classifies new cases using a majority vote of k of its neighbors. The case it assigns to a class is the one most common among its K nearest neighbors. For this, it uses a distance function.

k-NN is a type of instance-based learning, or lazy learning, where the function is only approximated locally and all computation is deferred until classification.

k-NN is a special case of a variable- bandwidth, kernel density "balloon" estimator with a uniform kernel.

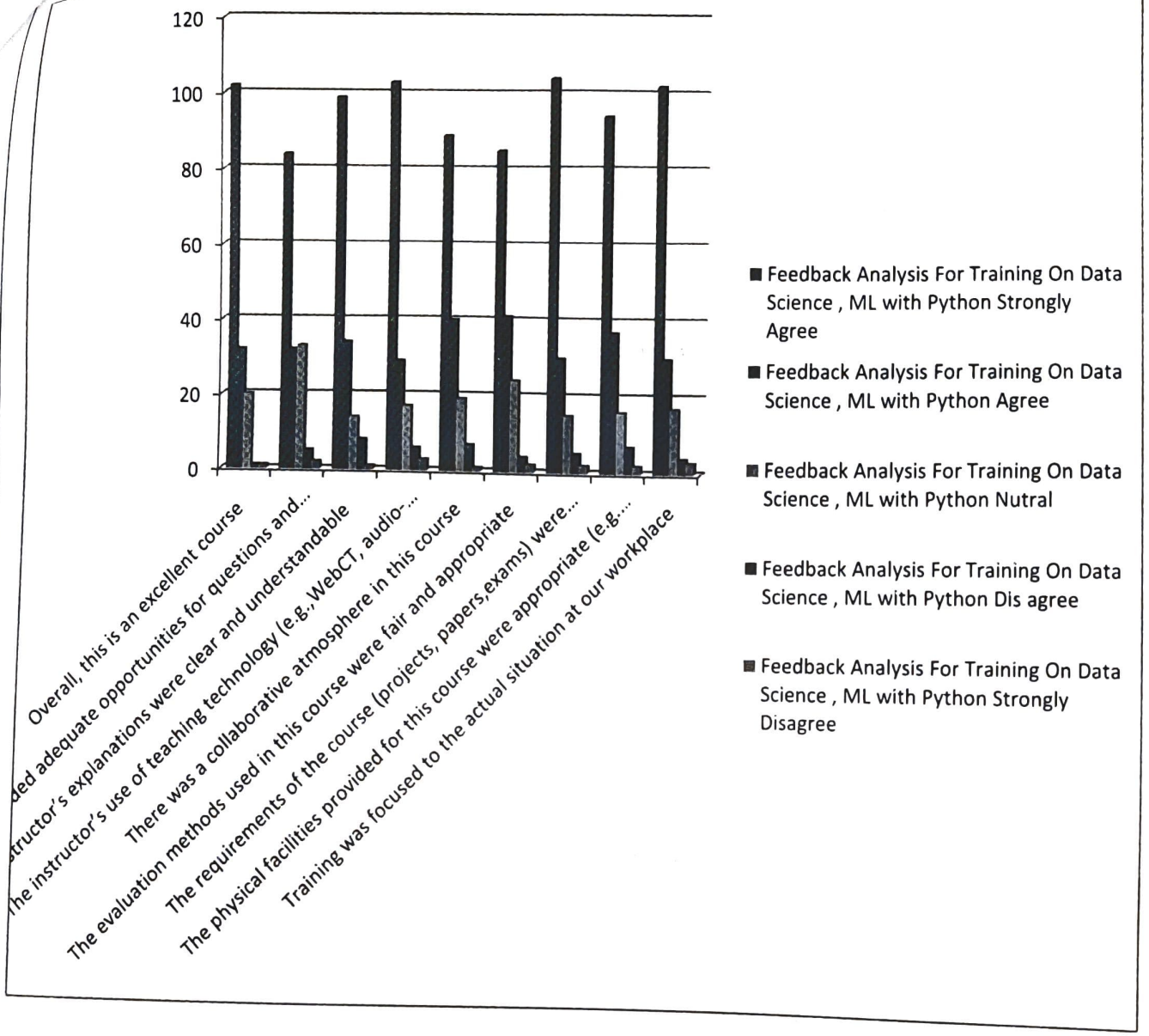
7. K-Means Algorithm -k-Means is an unsupervised algorithm that solves the problem of clustering. It classifies data using a number of clusters. The data points inside a class are homogeneous and heterogeneous to peer groups. k-means clustering is a method of vector quantization, originally from signal processing, that is popular for clusteranalysisindata mining. k -means clustering aims to partition n observations into k-clusters in which each observation belongs to the cluster with the nearest mean, serving as a prototype of the cluster.

k-means clustering is rather easy to apply to even large data sets, particularly when using heuristics such as Lloyd' s algorithm. It often is used as a preprocessing step for other algorithms, for example to find a starting configuration. The problem is computationally difficult(NP-hard). k-means originates from signal processing, and still finds use in this domain. In cluster analysis, the k-means algorithm can be used to partition the input data set into k partitions (clusters).

k-means clustering has been used as a feature learning(or dictionary learning) step, in either(semi-)supervised learning or unsupervised learning.

8.Random Forest - A random forest is an ensemble of decision trees. In order to classify every new object based on it s attributes, trees vote for class- each tree provides a classification. The classification with the most votes win sin the forest. Random forests or random decision forests are an ensemble learning method for classification, regression and other tasks that operates by constructing a multitude of decision trees at training time and outputting the class that is the mode of the classes (classification) or mean prediction (regression) of the individual trees

Feedback Analysis :


120
100
80
60
40
20
0
Overall, this is an excellent course
ded adequate opportunities for questions and...
structor's explanations were clear and understandable
he instructor's use of teaching technology (e.g., WebCT, audio-...
There was a collaborative atmosphere in this course
The evaluation methods used in this course were fair and appropriate
The requirements of the course (projects, papers,exams) were...
The physical facilities provided for this course were appropriate (e.g....
Training was focused to the actual situation at our workplace
Feedback Analysis For Training On Data Science , ML with Python Strongly Agree
Feedback Analysis For Training On Data Science , ML with Python Agree
Feedback Analysis For Training On Data Science , ML with Python Nutral
Feedback Analysis For Training On Data Science , ML with Python Dis agree
Feedback Analysis For Training On Data Science , ML with Python Strongly Disagree

SILIGURI INSTITUTE OF TECHNOLOGY

Report for Training on Data Science with ML using Python during 04/11/2020 to 13/11/2020 for 3rd year 2022 Pass Out Batch

Introduction :

Artificial Intelligence (AI), Machine Learning (ML) and Data Science (DS) are the pillars of the fourth industrial revolution. ML is an application of AI which allows computers to automatically learn from data without being explicitly programmed. Python has been designed with the provision for creating Machine Learning algorithms. Python is preferred as the best and robust platform for Machine Learning systems. Python also has numerous libraries for machine learning, data manipulation and analysis as well as a very active development community that continuously updates and creates new packages. It has been adopted by a wide variety of industries and applications including Data Science, Machine Learning, Data Analytics, Predictive Analytics, Business Intelligence and Web Analytics. This workshop aims to explore Python Programming right from installation, fundamentals to Machine Learning algorithms.

The Training session covered the basic algorithm that helps us to build and apply prediction functions with an emphasis on practical applications. **Training Objectives**

Main objectives of training were to learn:

- How to determine and measure program complexity,
- Python Programming
- ML Library Scikit, Numpy , Matplotlib, Pandas , Theano , TensorFlow
- Statistical Math for the Algorithms.
- Learning to solve statistics and mathematical concepts.
- Supervised and Unsupervised Learning
- Classification and Regression
- ML Algorithms
- Machine Learning Programming and Use Cases.

The outcomes of this workshop are:

- Understand the components of a Machine Learning algorithm.
- Apply Machine Learning tools to build and evaluate predictors
- How Machine Learning uses computer algorithms to search for patterns in data
- How to uncover hidden themes in large collections of documents using topic modeling
- How to prepare data, deal with missing data and create custom data analysis solutions for different industries
- Familiarity with Python installation, syntax and design

Why Python Is a Perfect Language for Machine Learning?

1. **A great library ecosystem -** A great choice of libraries is one of the main reasons Python is the most popular programming language used for AI. A library is a module or a group of modules published by different sources which include a pre-written piece of code that allows users to reach some functionality or perform different actions. Python libraries provide base level items so developers don't have to code them from the very beginning every time. ML requires continuous data processing, and Python's libraries let us access, handle and transform data. These are some of the most wide spread libraries we can use for ML and AI:

- Scikit-learnfor handling basic ML algorithms like clustering, linear and logistic regressions,regression, classification, and others.
- Pandasfor high-level data structures and analysis. It allows merging and filtering of data, aswell as gathering it from other external sources like Excel, for instance.
- Kerasfor deep learning. It allows fast calculations and prototyping, as it uses the GPU inaddition to the CPU of the computer.
- TensorFlowfor working with deep learning by setting up, training, and utilizing artificialneural networks with massive datasets.
- Matplotlibfor creating 2D plots, histograms, charts, and other forms of visualization.
- NLTK f or working with computational linguistics, natural language recognition, and processing.
- Scikit-imagefor image processing.
- PyBrainfor neural networks, unsupervised and reinforcement learning.
- Caffefor deep learning that allows switching between the CPU and the GPU
- StatsModelsfor statistical algorithms and data exploration.

In the PyPI repository, we can discover and compare more python libraries.

2. **A low entry barrier** -Working in the ML and AI industry means dealing with a bunch of data that we need to process inthe most convenient and effective way. The low entry barrier allows more data scientists to quickly pick up Python and start using it for AI development without wasting too much effort into learning the language.

In addition to this, there's a lot of documentation available, and Python's community is always there to help out and give advice

3. Flexibility- Python for machine learning is a great choice, as this language is very flexible:
   - It offers an option to choose either to use OOPs or scripting.
   - There's also no need to recompile the source code, developers can implement any
   - changes and quickly see the results.
   - Programmers can combine Python and other languages to reach their goals.
4. **Good Visualization Options-** For AI developers, it's important to highlight that in artificial intelligence, deep learning, and machine learning, it's vital to be able to represent data in a human-readable format. Libraries like Matplotlib allow data scientists to build charts, histograms, and plots for better data comprehension, effective presentation, and visualization. Different application programming interfaces also simplify the visualization process and make it easier to create clear reports.
5. **Community Support-** It's always very helpful when there's strong community support built around the programming language. Python is an open-source language which means that there's a bunch of resources open for programmers starting from beginners and ending with pros. A lot of Python documentation is available online as well as in Python communities and forums, where programmers and machine learning developers discuss errors, solve problems, and help each other out. Python programming language is absolutely free as is the variety of useful libraries and tools.
6. **Growing Popularity-**As a result of the advantages discussed above, Python is becoming more and more popular among data scientists. According to Stack Overflow, the popularity of Python is predicted to grow until 2020,at least. This means it's easier to search for developers and replace team players if required. Also, the cost of their work maybe not as high as when using a less popular programming language Data Preprocessing, Analysis & Visualization Machine Learning algorithms don't work so well with processing raw data. Before we can feed such data to an ML algorithm, we must preprocess it. We must apply some transformations on it. With data preprocessing, we convert raw data into a clean data set.

To perform data this, there are 7 techniques –

1. Rescaling Data -For data with attributes of varying scales, we can rescale attributes to possess the same scale. We rescale attributes into the range 0 to 1 and call it normalization. We use the Min Max Scaler class from scikit-learn. This gives us values between 0 and 1.

2. Standardizing Data -With standardizing, we can take attributes with a Gaussian distribution and different means and standard deviations and transform them into a standard Gaussian distribution with a mean of 0 and a standard deviation
3. Normalizing Data -In this task, we rescale each observation to a length of 1 (a unit norm). For this, we use the Normalizer class.
4. Binarizing Data -Using a binary threshold, it is possible to transform our data by marking the values above it 1 and those equal to or below it, 0. For this purpose, we use the Binarizer class.
5. Mean Removal-We can remove the mean from each feature to center it on zero.
6. One Hot Encoding -When dealing with few and scattered numerical values, we may not need to store these. Then, we can perform One Hot Encoding. For k distinct values, we can transform the feature into a k-dimensional vector with one value of 1 and 0 as the rest values.
7. Label Encoding -Some labels can be words or numbers. Usually, training data is labelled with words to make it readable. Label encoding converts word labels into numbers to let algorithms work on them

Machine Learning Algorithms :

There are many types of Machine Learning Algorithms specific to different use cases. As we work with datasets, a machine learning algorithm works in two stages. We usually split the data around 20%-80% between testing and training stages. Under supervised learning, we split a dataset into a training data and test data in Python ML. Followings are the Algorithms of Python Machine Learning -

1. Linear Regression-Linear regression is one of the supervised Machine learning algorithms in Python that observes continuous features and predicts an outcome. Depending on whether it runs on a single variable or on many features, wecan call it simple linear regression or multiple linear regression .This is one of the most popular Python ML algorithms and often under-appreciated. It assigns optimal weights to variables to create a line ax+b to predict the output. We often use linear regression to estimate real values like a number of calls and costs of houses based on continuous variables. The regression line is the best line that fits Y=a*X+b to denote a relationship between independent and dependent variables.

2. Logistic Regression -Logistic regression is a supervised classification is unique Machine Learning algorithms in Python that find sits use in estimating discrete values like 0/1, yes/no, and true/false. This is based on a given set of independent variables. We use a logistic function to predict the probability of an event and this gives us an output between 0 and 1. Although it says 'regression', this is actually a classification algorithm. Logistic regression fits data into a logit function and is also called logit regression.

3. Decision Tree -A decision tree falls under supervised Machine Learning Algorithms in Python and comes of use for both classification and regression- although mostly for classification. This model takes an instance, traverses the tree, and compares important features with a determined conditional statement. Whether it descends to the left child branch or the right depends on the result. Usually, more important features are closer to the root. Decision Tree, a Machine Learning algorithm in Python can work on both categorical and continuous dependent variables. Here, we split a population into two or more homogeneous sets. Tree models where the target variable can take a discrete set of values are called classification trees; in these tree structures, leave represent class labels and branches represent conjunctions of features that lead to those class labels. Decision trees where the target variable can take continuous values (typically real numbers) are called regression trees.

4. Support Vector Machine (SVM)-SVM is a supervised classification is one of the most important Machines Learning algorithms in Python, that plots a line that divides different categories of your data. In this ML algorithm, we calculate the vector to optimize the line. This is to ensure that the closest point in each group lies farthest from each other. While you will almost always find this to be a linear vector, it can be other than that. An SVM model is are presentation of the examples as points in space, mapped so that the examples of the separate categories are divided by a clear gap that is as wide as possible. In addition to performing linear classification, SVMs can efficiently perform a non-linear classification using what is called the kernel trick, implicitly mapping their inputs into high-dimensional feature spaces. When data are unlabeled, supervised learning is not possible, and an

unsupervised learning approach is required, which attempts to find natural clustering of the data to groups, and then map new data to these formed groups.

5. Naïve Bayes Algorithm - Naive Bayes is a classification method which is based on Bayes' theorem. This assumes independence between predictors. A Naive Bayes classifier will assume that a feature in a class is unrelated to any other. Consider a fruit. This is an apple if it is round, red, and 2.5 inches in diameter. A Naive Bayes classifier willsay these characteristics independently contribute to the probability of the fruit being an apple. This is even if features depend on each other. For very large data sets, it is easy to build a Naive Bayesian model. Not only is this model very simple, it performs better than many highly sophisticated classification methods. Naïve Bayes classifiers are highly scalable, requiring a number of parameters linear in the number of variables (features/predictors) in a learning problem. Maximum-likelihood training can be done by evaluating a closed-form expression, which takes linear time, rather than by expensive iterative approximation as used for many other types of classifiers.

6. kNN Algorithm -This is a Python Machine Learning algorithm for classification and regression- mostly for classification. This is a supervised learning algorithm that considers different centurions and uses a usually Euclidean function to compare distance. Then, it analyzes the results and classifies each point to the group to optimize it to place with all closest points to it. It classifies new cases using a majority vote of k of its neighbors. The case it assigns to a class is the one most common among its K nearest neighbors. For this, it uses a distance function.

k-NN is a type of instance-based learning, or lazy learning, where the function is only approximated locally and all computation is deferred until classification.

k-NN is a special case of a variable- bandwidth, kernel density "balloon" estimator with a uniform kernel.

7. K-Means Algorithm -k-Means is an unsupervised algorithm that solves the problem of clustering. It classifies data using a number of clusters. The data points inside a class are homogeneous and heterogeneous to peer groups. k-means clustering is a method of vector quantization, originally from signal processing, that is popular for clusteranalysisindata mining. k -means clustering aims to partition n observations into k-clusters in which each observation belongs to the cluster with the nearest mean, serving as a prototype of the cluster.

k-means clustering is rather easy to apply to even large data sets, particularly when using heuristics such as Lloyd' s algorithm. It often is used as a preprocessing step for other algorithms, for example to find a starting configuration. The problem is computationally difficult(NP-hard). k-means originates from signal processing, and still finds use in this domain. In cluster analysis, the k-means algorithm can be used to partition the input data set into k partitions (clusters).

k-means clustering has been used as a feature learning(or dictionary learning) step, in either(semi-)supervised learning or unsupervised learning.

8.Random Forest - A random forest is an ensemble of decision trees. In order to classify every new object based on it s attributes, trees vote for class- each tree provides a classification. The classification with the most votes win sin the forest. Random forests or random decision forests are an ensemble learning method for classification, regression and other tasks that operates by constructing a multitude of decision trees at training time and outputting the class that is the mode of the classes (classification) or mean prediction (regression) of the individual trees

Training Methodology:

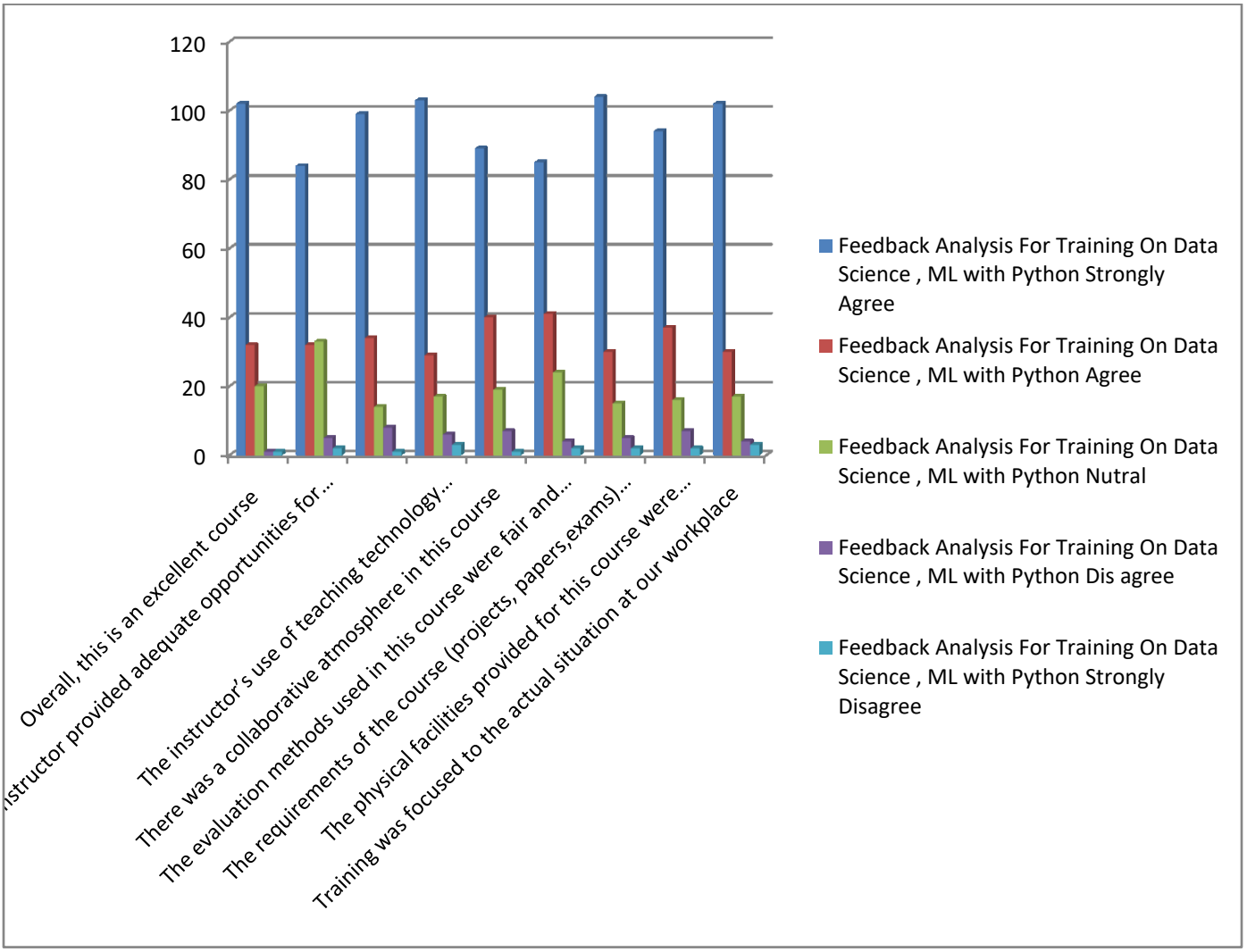
- Online approach to training, behavioral model of training would be practiced.
- During the training, the Trainee would implement a project related to respective modules.
- Commitment to Individual growth and constant evaluation.
- Implementation of ML Algorithms through a Project using Python.

Training Details:

TITLE : Data Science with ML using Python
DATE : 04/11/2020 to 13/11/2020
VENUE : Online Mode
PARTICIPANTS : 3rd year CSE and IT students
TRAINER/ ORGANIZATION : Ardent

Summary of the program:

The following points can be noted from the program.

- At the beginning of the training trainer has clearly described the basic Introduction Data Science with ML using Python and its application in industries in different areas.
- Students had done many programming by themselves during the trainings.
- During the training some students raised their queries and the trainer had explained all the quarries of the students.
- At the end of the training an online exam was conducted.
- As per the feedback received from the students end, the entire session was really fruitful
- and enjoyable and the students have learned many things about Python.

Feedback Analysis :