



POORNIMA


INSTITUTE OF ENGINEERING & TECHNOLOGY

Affiliated to RTU, Kota • Approved by AICTE & UGC under 2(f) • Accredited by NAAC and NBA

A REPORT ON

TWO WEEK FACULTY DEVELOPMENT PROGRAM ON HANDS- ON PRACTICE ON NETWORK PROGRAMMING

A
Two Week Faculty Development Program
on
Hands-on Practice on Network Programming

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ACCREDITED BY NAAC
Excellent Quality
Assured Education

ACCREDITED BY NBA
Excellence
Assured

RATED PLATINUM IN
AICTE A EB
AICTE A EBET Ranking


₹ 55,00,000/- Grant
For the establishment of
High Tech Labs under
the AICTE AEB


RANKED 3rd
in
National Level
Engineering Survey
2022

3.5 STAR
in
University Innovation System
(UIS) of AICTE


CENTER OF EXCELLENCE
in
Computer Science &
Engineering in Software
Engineering


11 REGISTERED START-UPS
7.8 Crore under MSME
and more Start-ups


 Cisco Packet Tracer
Create and configure
your own networks

 Cisco
Packet
Tracer

Resource Persons


Dr. Ajay Maurya
Professor
AI & DS, PIET, Jaipur


Er. Yogender Kr. Sharma
Assistant professor
AI & DS, PIET, Jaipur

 06 Feb-17 Feb 2023


 BG-02 A Lab, PIET

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Overview

Jaipur, India is proposing a **Two Week Faculty Development Program on Hands- on Practice on Network Programming from 06 Feb – 17 Feb, 2023.**

Institutional Profile:

Poornima Institute of Engineering & Technology, Jaipur (PIET) is a premier institution in engineering education, established in the academic year 2007; it is affiliated to Rajasthan Technical University, and approved by AICTE. PIET aims at providing world-class technical and scientific education that can develop a professional outlook in every walk of life and has been ranked 3rd in RTU-QIV ranking.

Some key salient features are:

- PIET has been 1st Institution to offer B. Tech CSE in Regional language under NEP 2020
- PIET is accredited by National Assessment and Accreditation Council (NAAC).
- B. Tech in Computer Engineering is accredited by National Board of Accreditation (NBA)
- PIET has been rated PLATINUM by AICTE- CII Survey for strong Industry Linked Technical Institutes
- PIET is the only institute in Rajasthan to be funded by AICTE with a fund of Rs. 55 Lakh for establishing IDEA Lab.
- PIET has established a Neural Network & Deep Learning Lab under MODROB Scheme with grants of Rs. 12.84 Lakh.
- Received Research Grants for more than Rs. 50 Lakh in the last 3 years from agencies like TEQIP III, AICTE, NITTTR etc.

About Department

The Department of AI & DS was established in the year 2022. The department aims at providing quality education in the field of Artificial Intelligence & Data Science which emphasizes research and innovations with a curriculum provided by Rajasthan Technical University, KOTA, and comprehensive hands-on experience through industry connect programs. The department offers a UG program leading to B.Tech. in Artificial Intelligence & Data Science. It is an excellent opportunity to satisfy the intellectual thirst in addition to massive market opportunities.

This Under Graduate program is the perfect blend of AI and DS and their applications in real-world problem solving as well as business intelligence. This course has comprehensive coverage of the fundamentals of computer engineering along with cross-disciplinary skills like statistics, mathematical and logical reasoning, knowledge discovery, visualization, big data analytics, etc. Overall, the program curriculum is designed in a way that imparts core and necessary skills required in the domain. This specialized course opens many career avenues for aspirants in healthcare, finance, astronomy, agriculture, data security, entertainment, E-commerce, social networking, climatology, biotechnology, genetics, and many more.

The Department has state of the art infrastructure in laboratories which is necessary to balance the theoretical & practical aspects of engineering which consists of a total of seven lecture rooms, five labs, one electronics lab, one special AICTE Sponsored Neural Network & Deep Learning Lab under the MODROB Scheme, department library, one conference room, and one seminar hall.

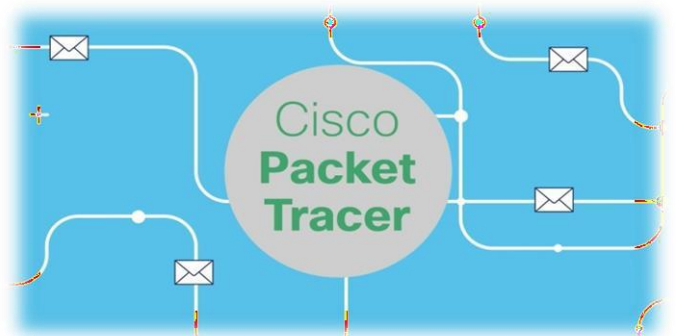
Well qualified & enthusiastic faculty are engaged in mentoring students and guiding them to realize their potential and become good ambassadors of the department and in turn institute. Regular industry visits and guest lectures are organized to provide a platform for promoting entrepreneurship and multidisciplinary

activities.

The eminent faculty members of the department have expertise in the field of Artificial Intelligence & Data Science and Core Computer Science. The majority of faculty members hold an M.Tech degree as a minimum qualification. Additionally, 44% of the faculties in the department hold Ph.D. degree. In the year 2022 more than 50 research papers were published by faculty members including Scopus Index and SCI publications.

To encourage the research activities the department is organizing two conferences Annually International Conference on Information Management and Machine Intelligence (ICIMMI) and Convergence to explore the opportunity to submit their full papers in conferences, which have not been yet submitted /published and that illustrate research, surveying works, and industrial application in all disciplines of Engineering for Intelligence based applications & automation activities, especially with the emergence of Data Analytics, AI, Machine Learning & Deep Learning Network Security using Machine Learning.

A Two Week Faculty Development Program on Hands-on Practice on



Resource Persons



16 Feb-17 Feb 2023



BG-02 A Lab, PIET

Dr. Ajay Maurya
Professor
AI & DS, PIET, Jaipur

Er. Yogender Kr. Sharma
Assistant professor
AI & DS, PIET, Jaipur

FDP Course Contents:

1.	IP addressing and Subnetting.
2.	Basic Networking Commands
3.	Basics of Cisco Packet Tracer
4.	Basics of configuring Hub, Switch using Cisco Packet Tracer
5.	Basics of configuring Router , Repeater using Cisco Packet Tracer
6.	Basics of configuring Bus, Ring, Star etc. Topology using Cisco Packet Tracer
7.	Hamming Code, Bit Stuffing using C
8.	Socket Programming Using Java(TCP)
9.	Socket Programming Using Java(UDP)

Executive Committee

- **Patron:** Dr. Dinesh Goyal, Principal, and Coordinator, AICTE MODROBDeep learning and Neural network Lab, PIET, Jaipur
- Mr. Deepak Moud, HoD, CSE, PIET, Jaipur
- Dr. Anil Kumar, HoD, AI & DS, PIET, Jaipur
- Dr. Ajay Maurya, Professor, AI & DS, PIET, Jaipur
- Mr. Yogender Kumar Sharma, Assistant Professor, AI & DS, PIET, Jaipur

Prerequisites:

- Basic of JAVA
- Basic of C language
- Fundamentals of Computer Networks
- Basic Knowledge of Cisco Packet Tracer

Registration Link: <https://tinyurl.com/FDP-NTW>

Details of Sessions:

Date	Session (2 PM to 4 PM)
06-02-2023	IP addressing and Subnetting
07-02-2023	Basic Networking Commands
08-02-2023	Basics of Cisco Packet Tracer
09-02-2023	Socket Programming Using Java(UDP)
10-02-2023	Socket Programming Using Java(TCP)
Date	Session (8:30 AM to 12:30 & 1:00 PM to 4:00 PM)
11-02-2023	Practical Implementation of Socket Programming (UDP/TCP)
Date	Session (8:30 AM to 12:30)
12-02-2023	Assessment on Socket Programming
Dates	Session (2 PM to 4PM)
13-02-2023	Basics of configuring Hub, Switch using CiscoPacket Tracer
14-02-2023	Configuring Bus, Ring, Star etc. Topology using Cisco Packet Tracer
15-02-2023	Configuring Router, Repeater using Cisco Packet Tracer
16-02-2023	Bit Stuffing using C
17-02-2023	Hamming Code

Day 1- Session 1: Feb 06, 2023

Topic : IP Addressing and Subnetting

Resource Person: Yogender Kumar Sharma,

Assistant Professor, AI & DS, PIET, Jaipur



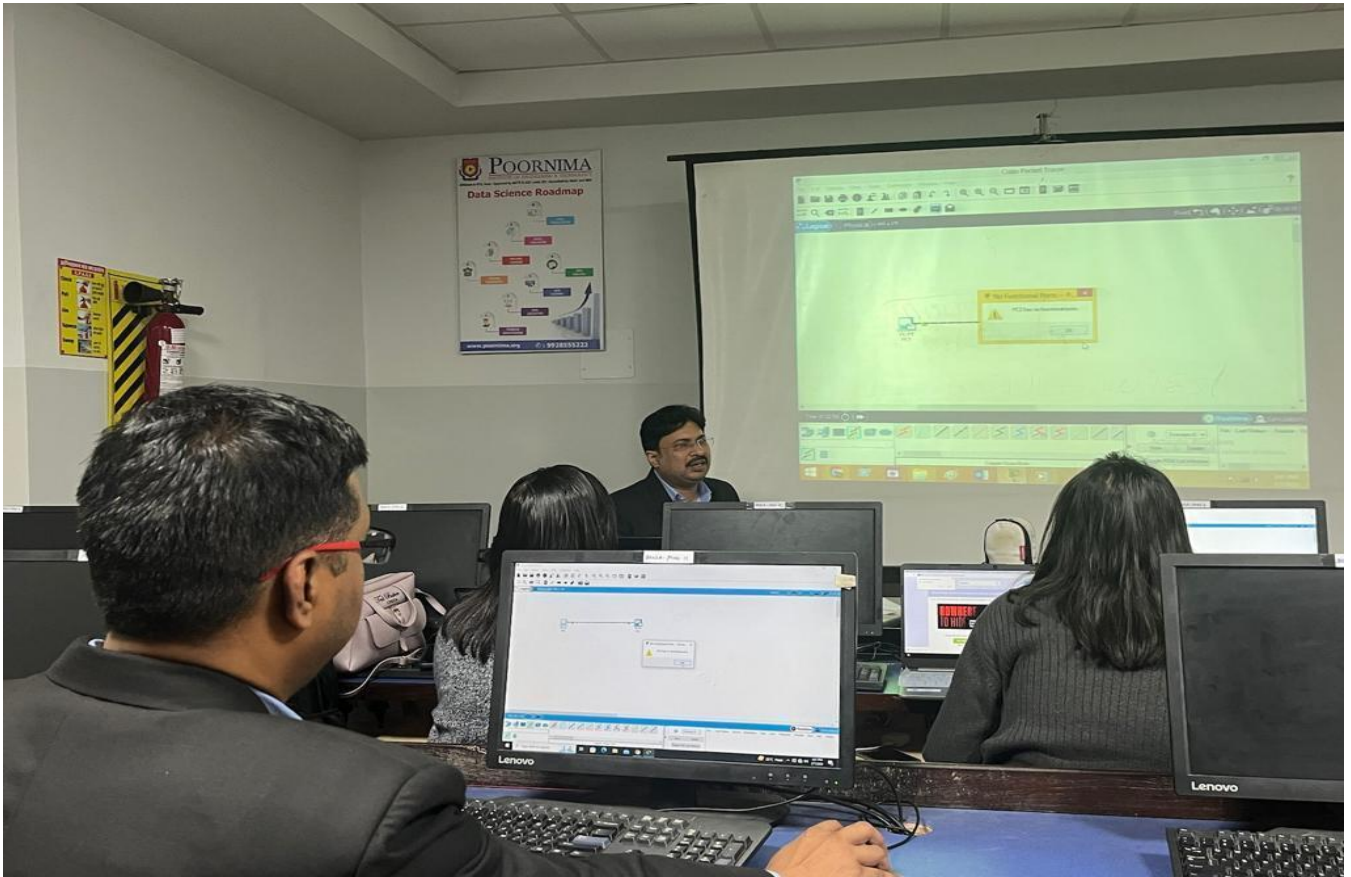


Day 2- Session 2: Feb 07, 2023

Topic : Basic Networking Commands

Resource Person: Yogender Kumar Sharma

Assistant Professor, AI & DS, PIET, Jaipur

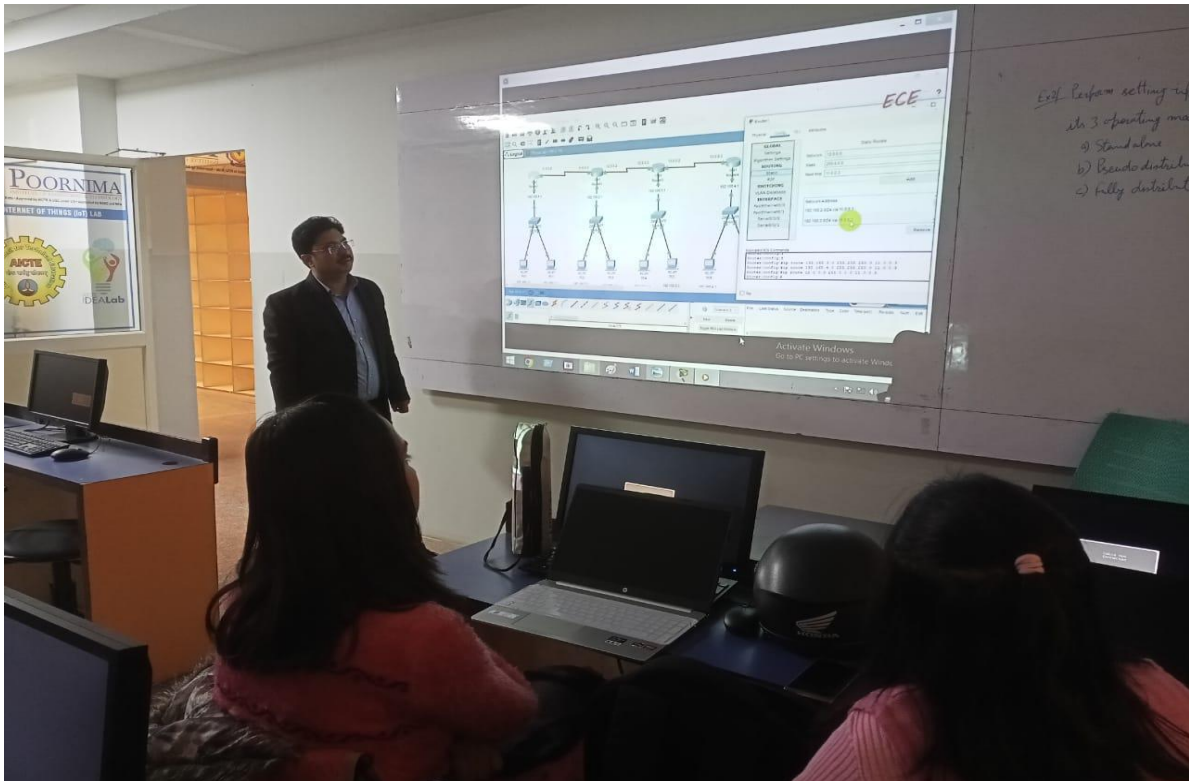


Day 3- Session 3: Feb 08, 2023

Topic : Basics of Cisco Packet Tracer

Resource Person: Yogender Kumar Sharma

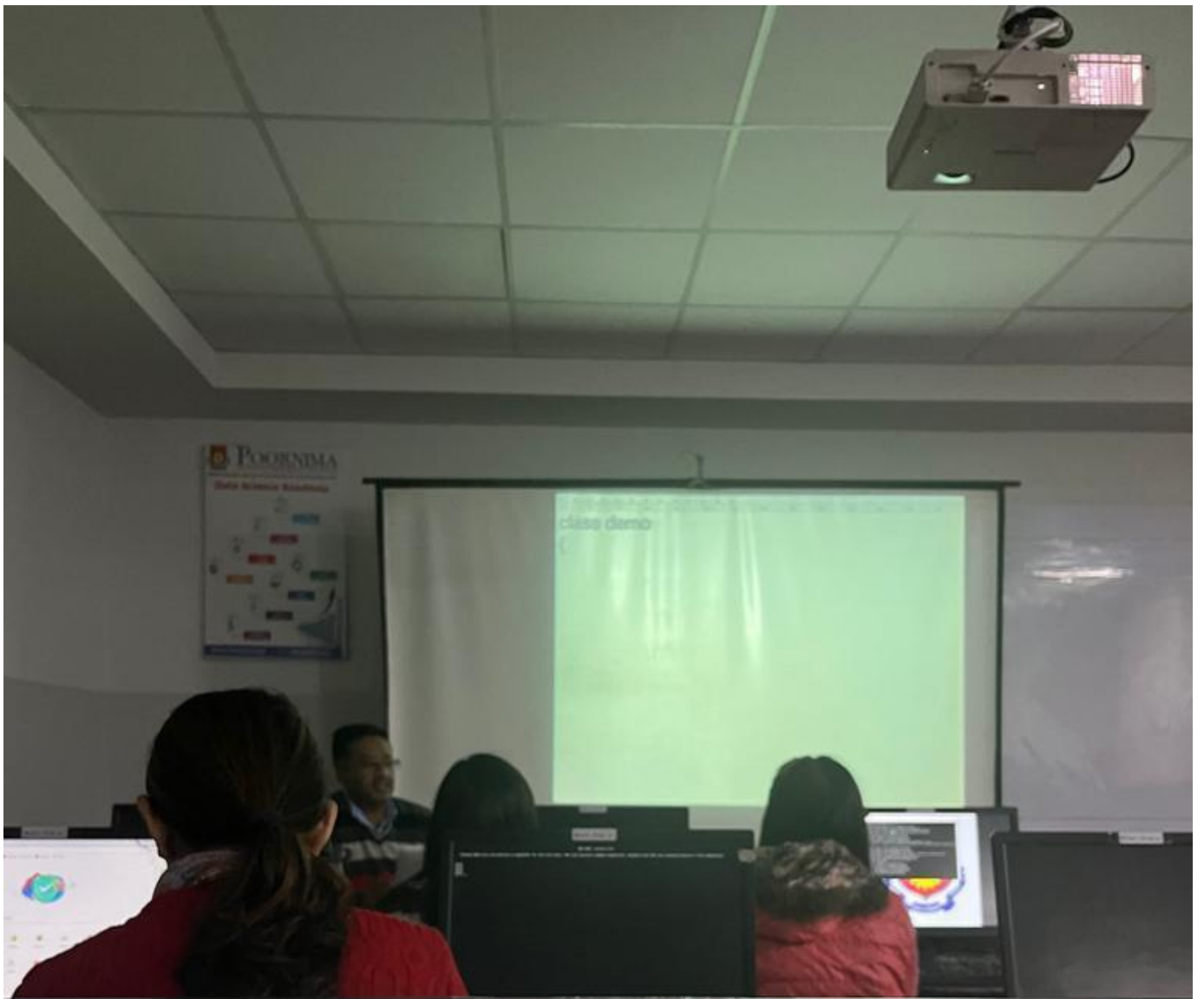
Assistant Professor, AI & DS, PIET, Jaipur



Day 4- Session 4: Feb 09, 2023

Topic : Socket Programming Using Java(UDP)

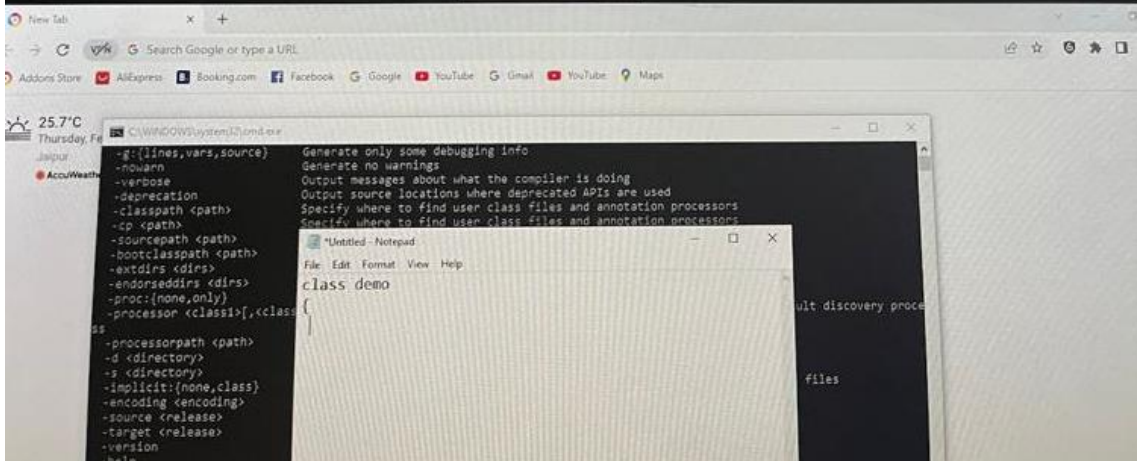
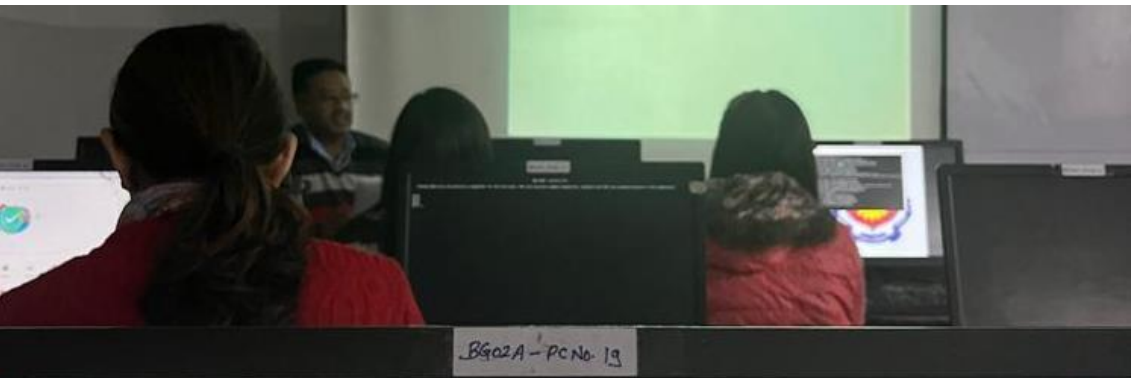
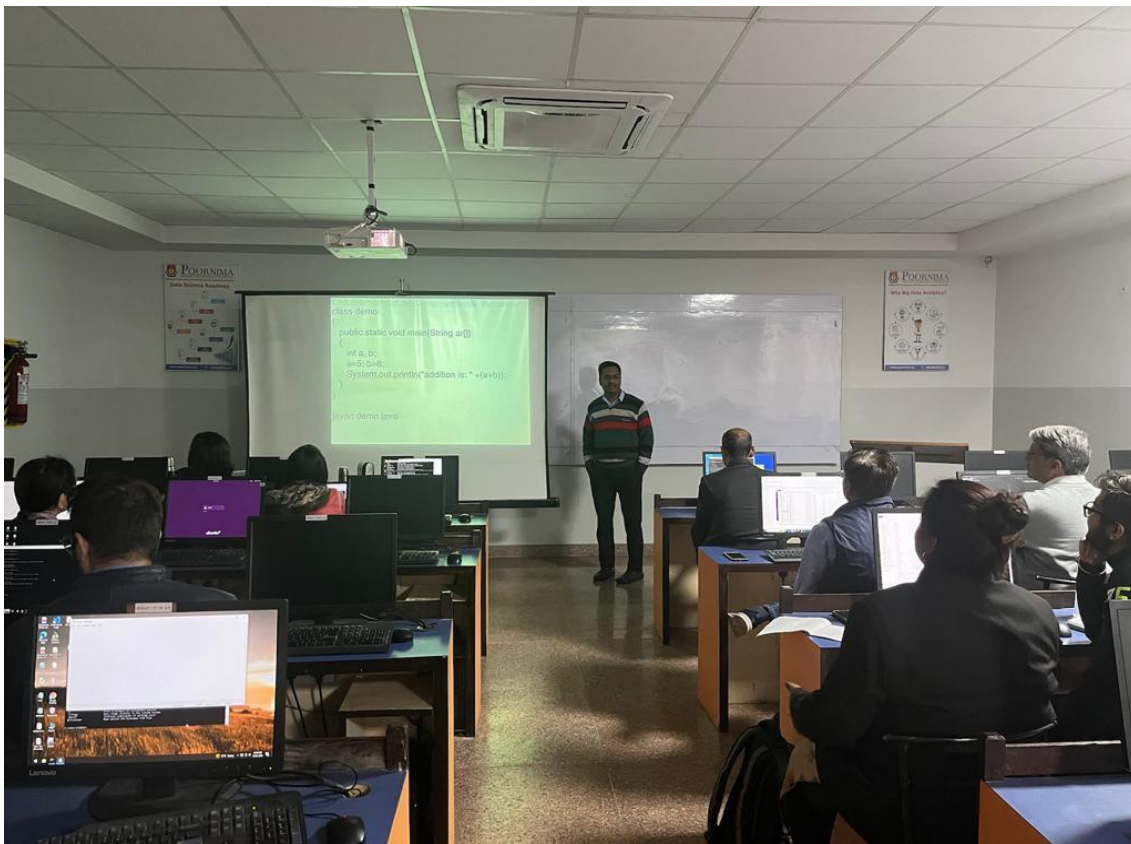
Resource Person: Dr. Ajay Maurya, Professor, AI & DS, PIET, Jaipur



Day 5- Session 5: Feb 10, 2023

Topic : Socket Programming Using Java(TCPP)

Resource Person: Dr. Ajay Maurya, Professor, AI & DS, PIET, Jaipur



Day 6- Session 6-7: Feb 11, 2023

Topic : Practical Implementation of Socket Programming (UDP)
Practical Implementation of Socket Programming (TCP)

Resource Person: Dr. Ajay Maurya, Professor, AI & DS, PIET, Jaipur



Day 7 - Session -8: Feb 12, 2023

Topic : Assessment on Socket Programming (Online)

Resource Person: Dr. Ajay Maurya, Professor, AI & DS, PIET, Jaipur

Day 8 - Session -9: Feb 13, 2023

Topic : Configuring Hub, Switch using Cisco, Packet Tracer

Resource Person: Yogender Kumar Sharma

Assistant Professor, AI & DS, PIET, Jaipur



Day 9 - Session -10: Feb 14, 2023

Topic : Assessment on Socket Programming (Online)

Resource Person: Yogender Kumar Sharma

Assistant Professor, AI & DS, PIET, Jaipur



Day 10 - Session -11: Feb 15, 2023

Topic Configuring Router, Repeater using Cisco Packet Tracer

Resource Person: Yogender Kumar Sharma

Assistant Professor, AI & DS, PIET, Jaipur

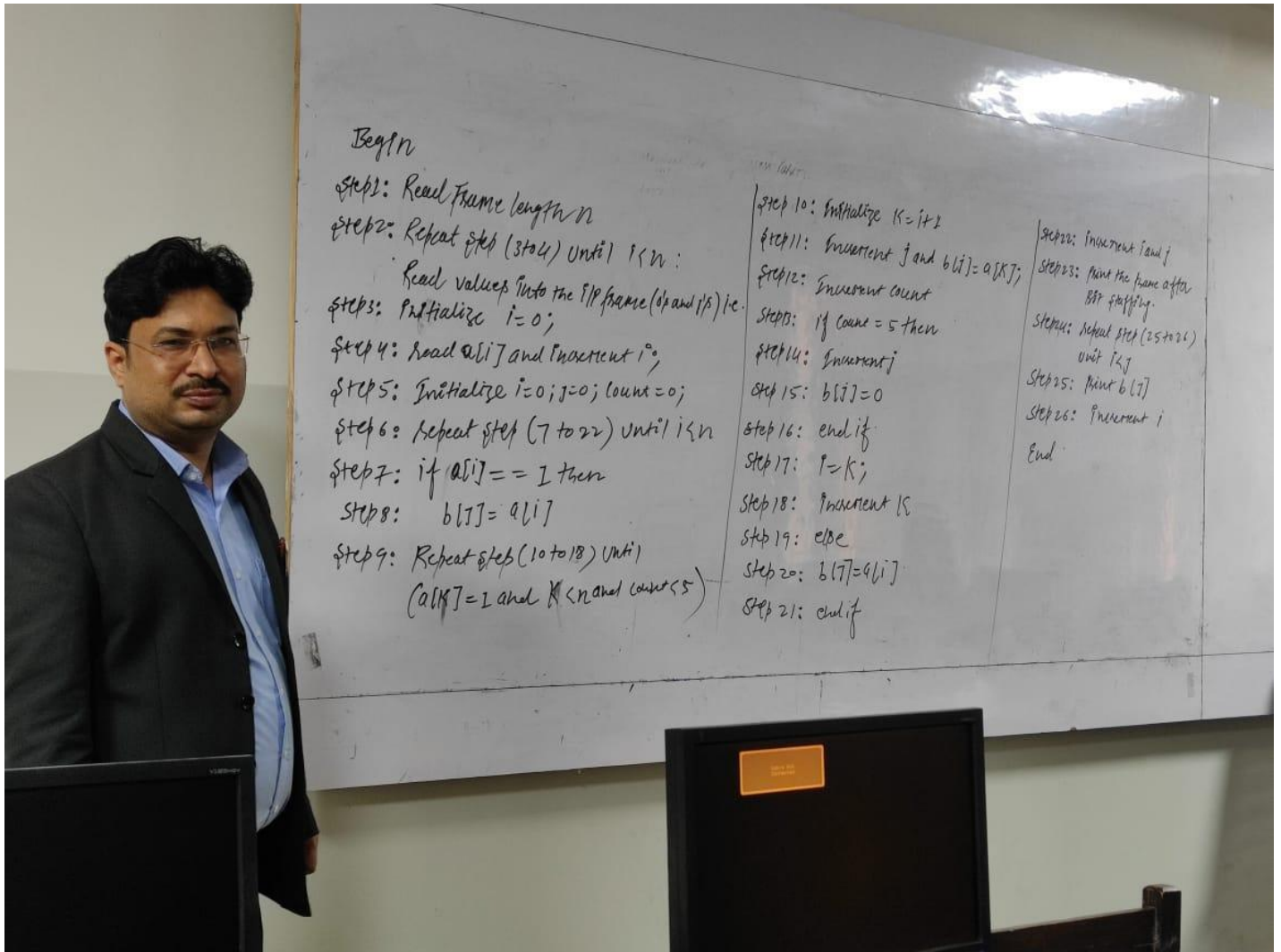


Day 11 - Session -12: Feb 16, 2023

Topic : Bit Stuffing using C

Resource Person: Yogender Kumar Sharma

Assistant Professor, AI & DS, PIET, Jaipur



Day 12 - Session -13: Feb 17, 2023

Topic : Hamming Code

Resource Person: Yogender Kumar Sharma

Assistant Professor, AI & DS, PIET, Jaipur



List of Participants

Employee Name	Department	Designation	Institute Name
Bersha Kumari	AI & DS	Assistant Professor	PIET, Jaipur
Dr Uday Pratap Singh	AI & DS	Associate Professor	PIET, Jaipur
Anurag Anand Duvey	AI & DS	Assistant Professor	PIET, Jaipur

Dr. Purushottam L. Bhari	CS	Associate Professor	PIET, Jaipur
Chanchal tiwari	AI & DS	Assistant professor	PIET, Jaipur
Anil Kumar	AI & DS	Professor	PIET, Jaipur
Ajay Maurya	AI & DS	Professor	PIET, Jaipur
Mohnish Sachdeva	AI & DS	Assistant Professor	PIET, Jaipur
Dr. Pankaj Rahi	AI & DS	Associate Professor	PIET, Jaipur
Yogender Kumar Sharma	AI & DS	Assistant Professor	PIET, Jaipur
Shivangi khandelwal	CS	Assistant professor	PIET, Jaipur
Shaifali Khandelwal	CS	Assistant Professor	PIET, Jaipur
Abhishek Dadhich	CS	Assistant Professor	PIET, Jaipur
Dr. Shashi Kant Rathore	CS	Associate Professor	PIET, Jaipur
Astha Joshi	AI & DS	Assistant Professor	PIET, Jaipur
Dr Devesh Kumar Bandil	AI & DS	Professor	PIET, Jaipur
Abhishek Parashar	CS	Technical Assistant	PCE, Jaipur
Jitendra Kumar Kanwaria	CS	Technical Assistant	PCE, Jaipur
Dr. Abhishek Sharma	CS	Assistant Professor	PCE, Jaipur
Abhishek yadav	CS	technical assistant	PCE, Jaipur
Umesh Sahu	CS	Assistant professor	PU, Jaipur
Abhijeet Parashar	CS	Technical Assistant	PU, Jaipur
Virendra Singh	CS	Technical Assistant	PCE, Jaipur
Hukam Chand Gouttam	CS	Technical Assistant	PCE, Jaipur
Veena yadav	CS	Professor	PCE, Jaipur
Naveen Singh Negi	CS	Technical Assistant	PU, Jaipur
Suchit Bhai Patel	CS	Assistant Professor	PCE, Jaipur

Outcomes

- Define the fundamentals of underlying principles of computer networking.
- Understand the key topologies which support the internet.
- Create socket and analyze different client server model.
- Demonstrate the installation and configuration of network simulator.
- Applying Network routing algorithm and evaluate the process of implementing simple routed internetwork.
- Evaluate the error using various error correcting techniques

Feedback

- All the participants found the sessions extremely valuable and appreciated the teaching methodology of our Event Speakers.
- The Faculties encouraged this initiative of the Department of AI & DS and requested more such pieces of training in the coming semester.

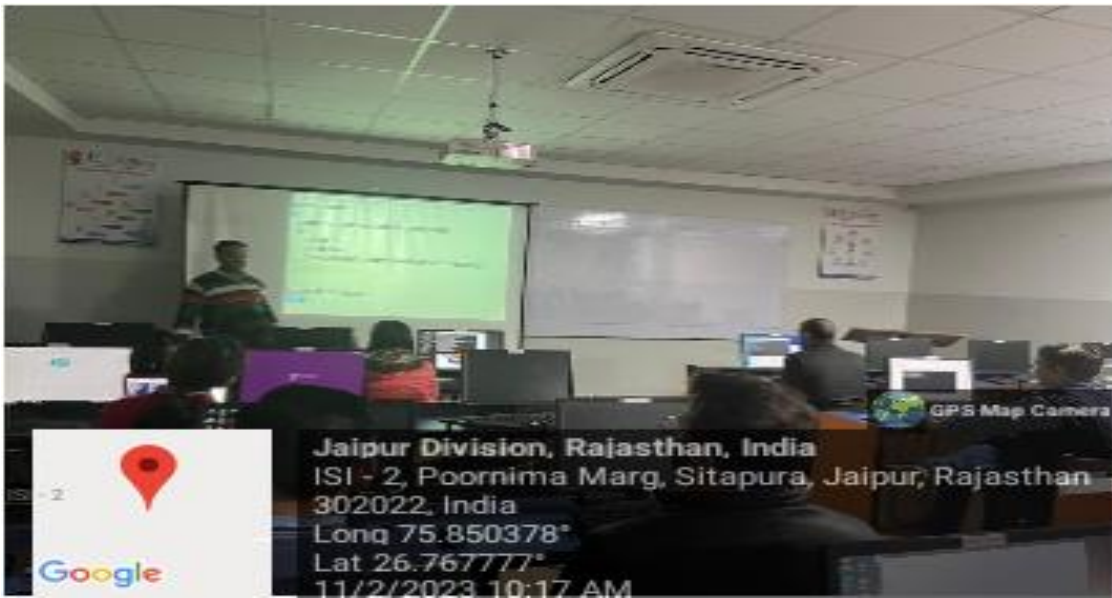


GPS Map Camera



Jaipur Division, Rajasthan, India
ISI - 2, Poornima Marg, Sitapura, Jaipur, Rajasthan
302022, India
Long 75.850382°
Lat 26.767780°
17/2/2023 10:40 AM

2023/2/16 09:24



GPS Map Camera



Jaipur Division, Rajasthan, India
ISI - 2, Poornima Marg, Sitapura, Jaipur, Rajasthan
302022, India
Long 75.850378°
Lat 26.767777°
11/2/2023 10:17 AM

