



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

Accredited by NAAC with 'A' Grade & NBA(Under Tier -I), ISO9001:2015 Certified Institution, Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada
L.B. REDDY NAGAR, MYLAVARAM, NTR DIST., A.P.-521 230.

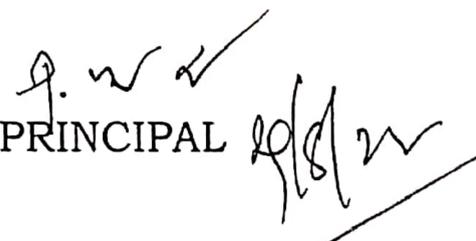
CIRCULAR

Date:29-08-2022

Departments of CSE and AI&DS are organizing a two-day workshop on "Network Simulation Tools & Techniques" on 2nd and 3rd September 2022. All the students of B.Tech. 3rd year(V sem) CSE and AI&DS must register for the workshop and participate without fail. The registration link is provided in brochure attached herewith.

Venue: Sarvepalli Radhakrishnan Hall, 2nd Floor, Admin Block.

Time:- 9.00AM – 4.00PM


PRINCIPAL

Cc: i) All B.Tech. V Sem students of Department of CSE (ii) All B.Tech. V Sem students of Department of AI&DS (iii) Notice Boards

RESOURCE PERSON:

Dr. E. Suresh Babu

Asst. Professor, CSE
NIT, WARANGAL.

Eligibility

- All B.Tech. Students

Registration and Fee Particulars:

- No Registration Fee
- All B.Tech. V sem students of CSE and AI & DS
- Registration link follows:

<https://tinyurl.com/p5zvtvhd>

- All B.Tech. V sem students of CSE and AI & DS must register using above link.

Certificate Criteria:

- E-Certificate will be provided

Contact:

Dr.K.N.Prasanthi

+91-9490872103

Mr.B.Sivarama Krishna

+91-9490835580

Ms. T. Srirajarajeswari

+91- 8297247173

COMMITTEE MEMBERS

Chief Patrons:

- 1) Sri L.R.N.K. Prasad Reddy, Chairman
- 2) Sri L. Jaya Prakash Reddy, Co-Chairman

Patrons:

- 1) Sri G. Srinivasa Reddy, President
- 2) Dr. K. Appa Rao, Principal
- 3) Dr. M. Srinivasa Rao, Dean of Academics

Convener:

- 1) Dr. D. Veeraiyah, Professor & HOD, CSE
- 2) Dr. O. Rama Devi, Professor & HOD, AI & DS

Coordinators:

- 1) Dr. K. Naga Prasanthi,
Assoc. Professor, CSE
- 2) Mr. B. Sivarama Krishna
Sr. Asst. Professor, CSE
- 3) Ms. T. Srirajarajeswari
Sr. Asst. Professor, AI & DS
- 4) Mr. N. V. Naik,
Sr. Asst. Professor, CSE

Student Coordinators:

- 1) G. Bhavana - 7997883040
- 2) M. Shanmukha - 7794931674
- 3) K. S. M. S. Vinay Kumar - 9392480062
- 4) K. Geethika Rajyalakshmi - 9100572629

Two Day Workshop

on

*Network Simulation
Tools & Techniques*

(2nd & 3rd September 2022)

Organized by

**Department of Computer
Science & Engineering**

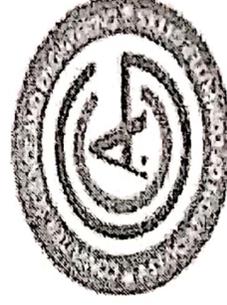
and

**Department of Artificial
Intelligence & Data Science**

nirf
NATIONAL
INSTITUTIONAL
FRAMEWORK



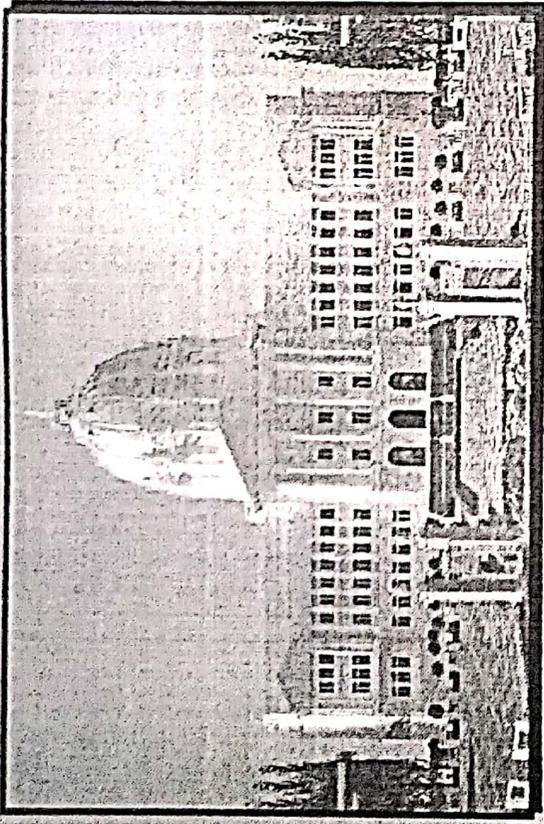
NBA
NATIONAL BOARD
OF ACCREDITATION



**LAKIREDDY BALIREDDY COLLEGE
OF ENGINEERING (AUTONOMOUS)**

MYLAVARAM

Accredited by NAAC & NBA
(CSE, IT, EEE, ECE, MECH)



LBRCE was founded through the ready assistance of charitable trusts in 1988 which stand for quality technical education which is exemplified by the continuous strides it has taken towards excellence. The first year intake is of 1464 students. It got an 'A' grade and now our intake is of 2010 students. It got an 'A' grade. Status in the year 2010 from UGC, which is equivalent to a grade of 'A' grade and NBA (CSE, IT, ECE, EEE, & MECH) under field valid up to 2024-25. The college has also been awarded 2(A) and 12(B) status upon the recognition as a 'College with Potential for Excellence (CPE)' from the UGC. We take pride to have a large pool of well-qualified and experienced faculty.

About CSE Department:

The Department of Computer Science and Engineering at LBRCE was established in 1998, which offers Under graduate Program (B.Tech) in CSE and Postgraduate Program (M.Tech) in CSE. The B.Tech (Computer Science and Engineering) program was started with an intake of 40 students. The intake was subsequently increased to 60 in the year 1999, 90 in the year 2008, 120 in the year 2009 and 180 students in the year 2019. The M.Tech (Computer Science and Engineering) was started in the year 2008 with an intake of 18 students.

Department was accredited by NBA in the year 2008 for the period of three years and in the year 2019 under Tier-I, valid up to A.Y: 2021-22 and got extension for three years upto A.Y. 2024-25. The department is also recognized as Research Centre by JNTUK, Kakinada. At Present, Department consists of 44 Well-Qualified Faculty with 14 Doctorates from reputed institutions like IIT, NIT & State Universities.

Key Take aways:

After the completion of the Workshop, the Participants will be able to know:

- Basic networking commands & utilities.
- Basics of network layer tools
- Packet Capturing and analyzing using network layer tools
- Mobile Adhoc Topologies with NS3
- Socket Programming in TCP and UDP
- Application Layer protocols using Wireshark
- Global routing using NS3
- TCP flow control, error control, congestion

About AI & DS Department

The Department of Artificial Intelligence & Data Science Engineering at the LBRCE was established in 2020 with an intake of 60 students and the intake was subsequently increased to 120 students in the year 2021. The main goal of artificial intelligence (AI) and data science (DS) is to program computers to use example data or experience to solve a given problem. This specialized B.Tech. course is specially designed to enable students to build intelligent machines, software, or applications with a cutting-edge combination of machine learning, analytics and visualization technologies.

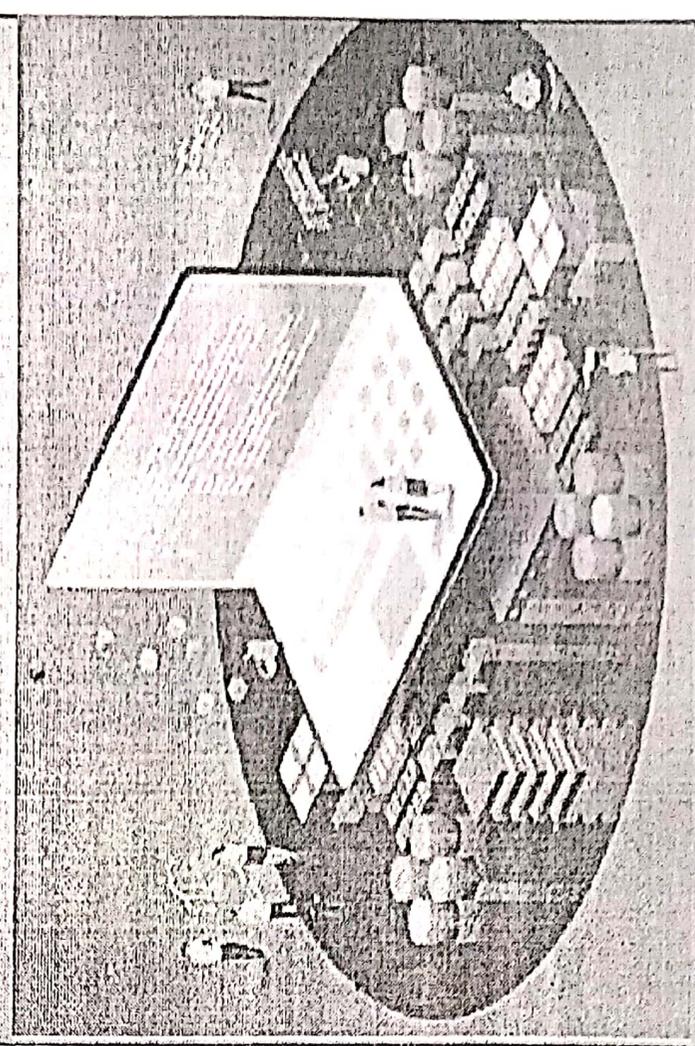
The department consists of 8 well qualified faculty and renowned faculty from Industry as adjunct faculty

About the Workshop:

Network simulation is a technique where by a software program replicates the behavior of a real network. This is achieved by calculating the interactions between the different network entities such as routers, switches, nodes, access points, links, etc. Most simulators use discrete event simulation in which the modeling of systems in which state variables change at discrete points in time.

A network simulator is a software program that can predict the performance of a computer network or a wireless communication network. In simulators, the computer network is modeled with devices, links, applications, etc. and the network performance is reported.

There are both free/open-source and proprietary network simulators available. Some of them are NS3, WIRESHARK, Cisco Packet Tracer, Zenmap, Purity etc. By the end of this workshop, participants will be able to work with network simulation tools like NS3, WIRESHARK, ZENMAP etc. and analyze the packets.





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L.B. REDDYNAGAR, MYLAVARAM, KRISHNADIST., A.P. - 521230.

<http://cse.lbrce.ac.in>, cse.lbrce@gmail.com, Phone: 08659-222933, Fax: 08659-222931

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Report on Student Workshop on “Network Simulation Tools and Techniques”

Event Type : Workshop

Dates : 02-09-22, 03-09-22

Names of Coordinators:

Dr K Naga Prasanthi, Assoc Professor, Dept. of CSE,

Mr B Siva Rama Krishna, Sr. Asst. Professor, Dept. of CSE,

Mr N V Naik, Sr. Asst. Professor, Dept. of CSE.

Target Audience : B.Tech. CSE V Sem Students

Total no. of Participants: 210

Objective of the Event:

The main objective of this workshop is to enable the students explore various network simulation and analysis tools. This event mainly focused on network analysis tools like WIRESHARK and network simulation tools like NS3.

Description of the Event:

The event is inaugurated by HoD CSE, Dr. D Veeraiah, HoD AI&DS, Dr O Rama Devi, Dean of Academics Dr M Srinivasa Rao, Resource Person Dr E Suresh Babu, Dept. of CSE, NIT Warangal and Event Coordinator Dr K Naga Prasanthi.

The event coordinator thanked the college management, Principal and HODs of CSE and AI&DS for giving permission to organize the workshop. The coordinator gave a brief overview of the workshop content.

In the first session resource person Dr E Suresh Babu explained about the computer network model and revisited the computer networking fundamentals like OSI model, TCP/IP model, topologies etc.

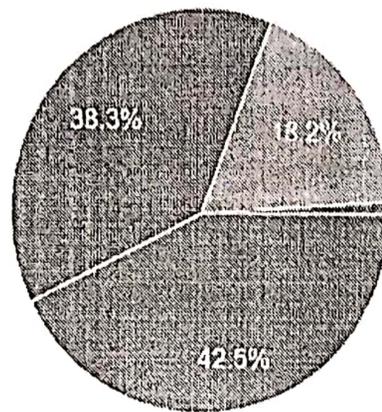
He gave an overview of various network simulation tools like OPNET, QualNet, Omnet++, Netsim. The resource person outlined the process for NS3 tool utilization. He explained the process of configuring, compiling and installing NS3 tool. He explained about using NS3 for various network problems.

The resource person outlined the structure of a python program in NS3. He illustrated some example network problems and demonstrated them using NS3 tool. He demonstrated how to capture packets using WIRESHARK and how to analyse them.

Feedback/Suggestions:

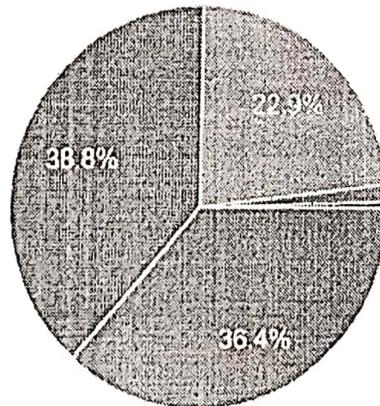
Focus on active learning techniques and their demonstration

214 responses



Overall rating of a workshop

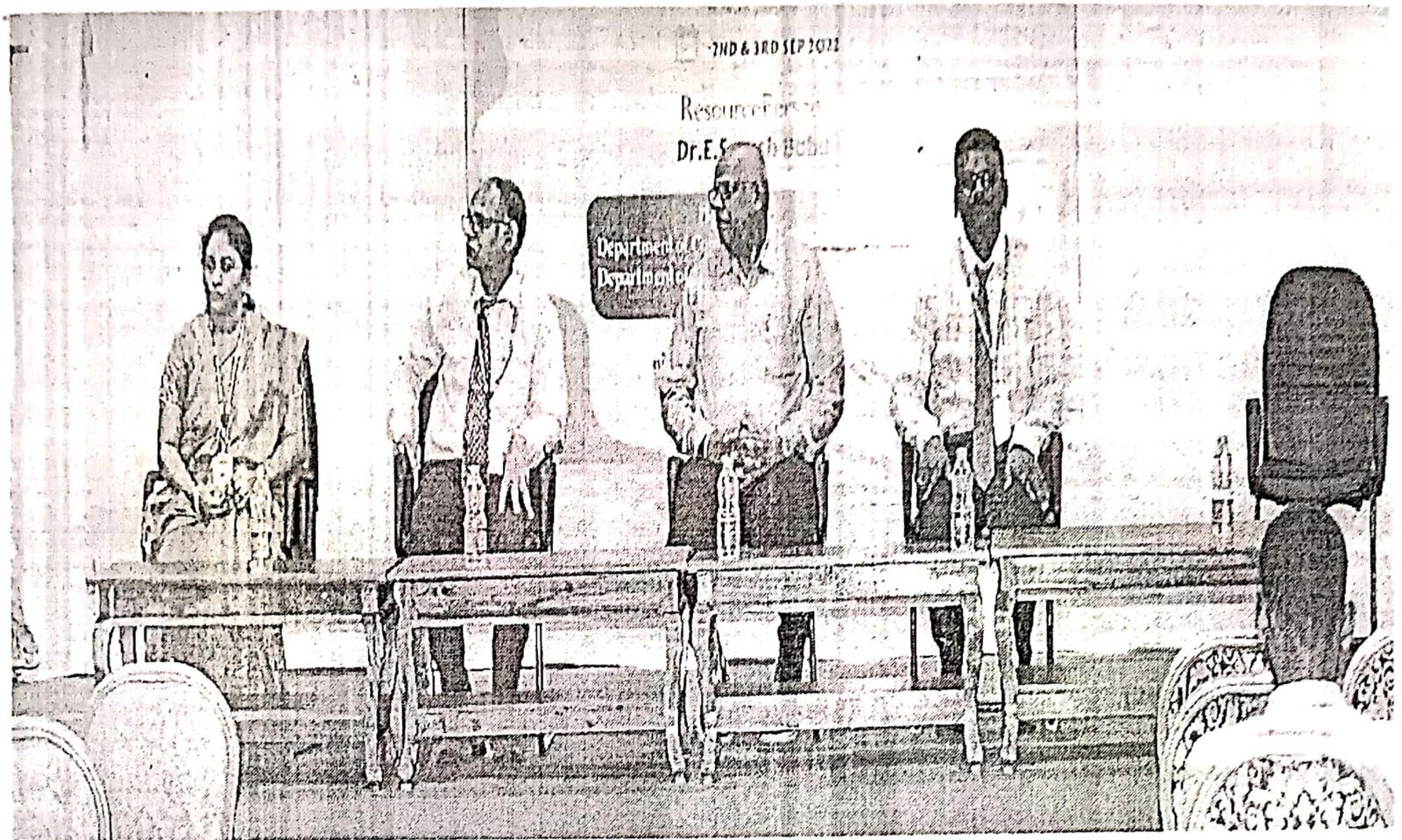
214 responses



Suggestions:-

- Students said that workshop is very useful and suggested for conducting for more days.
- Students requested that more workshops of this kind in new technologies should be conducted in future.

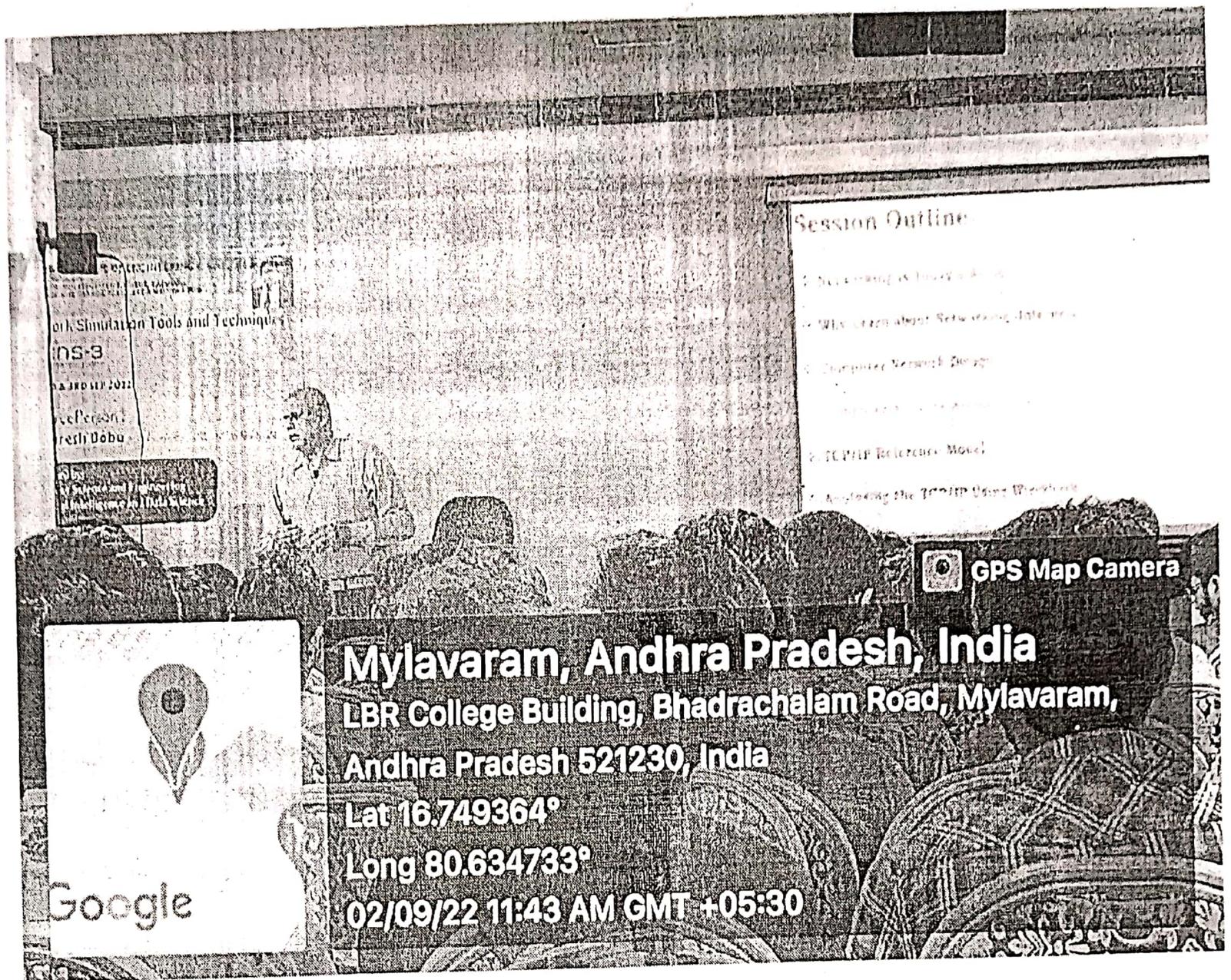
Event Photos:-



Inaugural Session



Students keenly listening to resource person



Resource Person delivering content



Felicitation of Resource person at the end of workshop

