LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L.B. REDDY NAGAR, MYLAVARAM – 521230. A.P. INDIA
Affiliated to JNTUK Kakinada & Approved by AICTE, New Delhi
Accredited By NAAC, Accredited By NBA Tier-I & Certified by ISO 9001:2015
http://www.lbrce.ac.in, Phone: 08659 – 222933, Fax: 08659 – 222931 Extn:109
DEPARTMENT OF INFORMATION TECHNOLOGY

Report on "NATIONAL LEVEL ONLINE FDP on SOFT COMPUTING, MACHINE LEARNING AND APPLICATIONS"

Event Type: FDP (Online)

Date / Duration: 24th – 28th June 2021, Five Days.

Resource Persons:

1. Dr Durga Toshniwal, Prof., Dept. of CSE, IIT Roorkee.
2. Dr. Venkata Nareshbabu Kuppili, Assist. Prof., Dept of CSE, NIT,Goa.
3. Dr. V. Susheela Devi, Principal Research Scientist, Dept.of.CSA, IISc, Bangalore.
4. Dr. Srilatha Chebrolu, Assist. Prof., Dept. of CSE, NIT, Andhra Pradesh.
5. Dr. Ramalingaswamy Cheruku, Assist. Prof., Dept. of CSE, NIT, Warangal.
6. Dr. Sateesh Kumar Peddoju, Assoc. Prof., Dept. of CSE,IIT,Roorkee.

Name of Faculty Coordinator(s):
- Dr. K. Lavanya, Assoc.Prof., Dept.of IT, LBRCE-Mylavaram.
- Dr. Anupriya Koneru, Assoc.Prof., Dept.of IT, LBRCE-Mylavaram.

Name of Student Coordinator(s):

- B . Jitendra Kumar (18761A1209), III-IT
- R. Priyadarshini (19761A1246), II A Sec –IT

Target Audience: Faculty & industry persons from various institutions & organizations with in the India

Total no of Participants: 74

Objective of the event:

- To disseminate the knowledge of Machine Learning and Soft Computing Techniques among students, researchers and academicians.
- To provide basics of Data Analysis and the use of Soft Computing Algorithms in real applications
- To provide conceptual understanding of different soft computing algorithms in feature selection and classification.
- To provide Hands-on experience on various Python tools for applying Machine Learning and Soft Computing Algorithms.

Outcome of event:

At the end of the event participants can able to

- Understand the Soft Computing and Machine Learning Concepts.
- Understand different Soft Computing algorithms.
- Work on Various Python tools used for Soft Computing Techniques.
- Perform Data Analysis using Machine Learning and Soft Computing approaches in Real Time Applications.
- Explore Hands-on Experiences on all topics.

Description / Report on Event:

The Department of Information Technology (IT), Lakireddy Bali Reddy College of Engineering (LBRCE), Mylavaram, organized the National Level Online Faculty Development Program on SOFT COMPUTING, MACHINE LEARNING AND APPLICATIONS from 24th – 28th June 2021. The Five day FDP conducted through CISCO WebEx every day.

Day 1 (24/05/2021):

FDP was inaugurated on 24th June, 2021 by the Principal Dr.K.Appa Rao, LBRCE, and HOD Dr.B.Srinivasa Rao, Department of IT. All the IT department faculty members, Resource persons and participants attended. The day started with the welcome speech given by Principal Sir & Hod sir, continued the FDP. In Day 1, two sessions conducted and the following topics covered:

Session -I taken by **Dr Durga Toshniwal**, Professor, Department of CSE, IIT Roorkee
- Research issues in soft computing and machine learning
- Applications of ML Strategies for machine learning
- Supervised, Unsupervised and Reinforcement Learning

Session -II taken by **Dr.K.Anupriya**

Hands-on Session on

- Different sources of Data,
- Importing into Python Environment

Day 2 (25/05/2021): Two sessions conducted and the following topics covered:

Session -III taken by **Dr. Venkata Nareshbabu Kuppili,** Assistant Professor, Department of CSE, National Institute of Technology -Goa

- Feature Selection/Extraction,
- Dimensionality Reduction,
- Principal Component Analysis
- Decision Tree Learning
- Deep Neural Networks

Session -IV taken by **Dr.K.Lavanya**

Hands-on Session on

- Impact of Missing Data
- Approaches to handle Missing Values

Day 3(26/05/2021): Three sessions conducted and the following topics covered:

Session -V taken by **Dr. V. Susheela Devi,** Department of Computer Science and Applications, IISc, Bangalore
- Soft computing for Machine learning

Session -VI taken by **Dr. Srilatha Chebrolu,** Assistant Professor, Department of Computer science and Engineering, NIT Andhra Pradesh
- Data Distribution
- Support Vector Machines

Session -VII taken by **Dr.K.Anupriya**
Hands on session on
- Python Jupyter Notebook
- Google Colab
- Preprocessing Data
- Classification Algorithms – Decision Trees, Naïve Bayes and KNN

Day 4(27/05/2021): Two sessions conducted and the following topics covered:

Session -VIII taken by **Dr. Ramalingaswamy Cheruku,** Assistant Professor, Department of Computer Science and Engineering, National Institute of Technology, Warangal, Telangana, INDIA

- Neural Networks,
- Perception,
- Back Propagation Algorithms
- Ensemble Learning

Session -IX taken by **Dr.K.Lavanya**

Hands on session on
- SVM
- Clustering Algorithms

Day 5(28/05/2021): Last day, regular sessions, quiz, feedback and valedictory completed

Session -X taken by Dr. Sateesh Kumar Peddoju, Associate Professor, Department of Computer Science and Engineering, IIT Roorkee.
The topics covered in the last sessions:

- Soft Computing
- Machine Learning
- Research Case Studies

In Session –XI, conducted the Quiz, followed by Valedictory.
Vote of thanks given by Dr.K.Anupriya , Associate Professor, Department of IT, LBRCE.

Feedback / Suggestions:

The feedback survey (through Google sheets) was completed by 52 attendees, a response rate of about 71%. The survey's findings on outcomes, satisfaction, overall FDP feedback, and recommendations for improvement

- Suggested to organize this kind of Lectures regularly.
- Recommendation for future FDPs by providing more time, background information, and offline
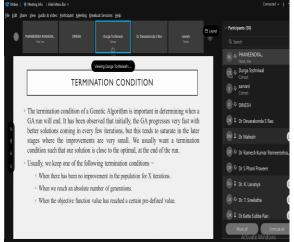
S. No	Content	Excellent / 5	Good/4	Satisfac tory/3	Poor /2	1
1	Rating for the FDP	73.1%	23.1%	3.8%	--	--
2	Rating of Day 1 Dr Durga Toshniwal	71%	27%	2%	--	--
3	Rating of Day 2 Dr. Venkata Nareshbabu Kuppili	66%	30%	4%	--	--
4	Rating of Day 3 Dr. V. Susheela Devi	69%	29%	2%	--	--
5	Rating of Day 3 Dr. Srilatha Chebrolu	69%	27%	4%	--	--
6	Rating of Day 4 Dr. Ramalingaswamy Cheruku	73%	23%	4%	--	--
7	Rating of Day 5 Dr. Sateesh Kumar Peddoju	73%	23%	4%	--	--

Top Participants:

List of participants who scored 100% in Quiz:

S.No	Full Name	College Name
1.	Jonnala Subba Reddy	LBRCE
2.	Z.Sunitha Bai	R.V.R&J.C College of Engineering
3.	S Sindhura	KLU , Guntur
4.	Zareena Noorbasha	R.V.R&J.C College of Engineering
5.	A.Kiran Kumari	SIDDARTHA INSTITUTE OF SCIENCE AND TECHNOLOGY
6.	Nardala Chamanthi	SIDDARTHA INSTITUTE OF SCIENCE AND TECHNOLOGY
7.	M A Pandiyan	SIDDARTHA INSTITUTE OF SCIENCE AND TECHNOLOGY
8.	P Madhavi Chowdary	SIDDARTHA INSTITUTE OF SCIENCE AND TECHNOLOGY
9.	Vijaya Lakshmi M	B. V. Raju Institute of Technology
10.	P. Madhuri Paul	St. Ann's College for Women, Mehdipatnam, Hyderabad
11.	Dr. Veerraju Gampala	KL Deemed to be University
12.	Mr. Muntimadugu Vijaya Kanth	JNTUA College of Engineering, Ananthapuramu, Andhra Pradesh
13.	P. Jhansi Devi	B V Raju Institute of Technology

Photographs:

Inauguration
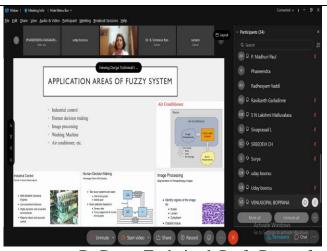

Session by Dr Durga Toshniwal, Prof., Dept. of CSE, IIT Roorkee

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Session by Dr. Venkata Nareshbabu Kuppili, Assist. Prof., Dept of CSE, NIT,Goa

Session by Dr. Sateesh Kumar Peddoju, Assoc. Prof., Dept. of CSE,IIT,Roorkee

Session by Dr. Sateesh Kumar Peddoju, Assoc. Prof., Dept. of CSE,IIT,Roorkee

Brochure:

Resource Persons:

- This Online FDP is in collaboration with other organization / Institution / Industry / Individual which have expertise in that area.
- Eminent Professors and Experts in the area of Soft Computing, and Machine Learning from IITs, and NITs.
- **Dr Durga Toshniwal**, Prof., Dept. of CSE, IIT Roorkee
- **Dr. Venkata Nareshbabu Kuppili**, Assist. Prof., Dept of CSE, NIT –Goa
- **Dr. V. Susheela Devi**, Principal Research Scientist, Dept.of.Computer Science and Applications, IISc, Bangalore
- **Dr. Srilatha Chebrolu**, Assist. Prof., Dept. of CSE, NIT Andhra Pradesh
- **Dr. Ramalingaswamy Cheruku**, Assist. Prof., Dept. of CSE, NIT- Warangal
- **Dr. Sateesh Kumar Peddoju**, Assoc. Prof., Dept. of CSE,IIT-Roorkee.

Eligibility:

- Faculty Members of AICTE Approved Institutions
- Research Scholars, PG Students & Industry
- Persons working in R&D Organizations

Registration and Fee Particulars:

- No RegistrationFee
- Participants will be selected based on First Come First Serve Basis
- Registration for the Program can be done by clicking https://forms.gle/PYivwzG6AyJw2TVf8

Important Dates:

- Last Date for Registration :21/06/2021

Certificate Criteria:

- A test will be conducted at the end of the program.
- Minimum Attendance needed: 80%

Contact:

Dr. K. Lavanya,
Associate Professor, Department of IT,
Mobile: 8499097990
E-mail:dr.lavanyakampa@gmail.com
Dr. K. Anupriya,
Associate Professor, Department of IT
Mobile: 9492038061
E-mail: anupriyakoneru@lbrce.ac.in

COMMITTEE MEMBERS

Chief Patrons:

1) Er. Lakireddy Bali Reddy,Chairman

2) Sri L. Jaya Prakash Reddy,Co-Chairman

3) Sri L.R.N.K. Prasad Reddy,Vice-Chairman

Patrons:

1) Sri G. Srinivasa Reddy, President

2) Dr. K. Appa Rao, Professor & Principal

3) Dr. K. Harinatha Reddy, Vice Principal

Convener:

Dr.B.Srinivasa Rao, Professor & HOD, IT

Coordinator:

Dr.K.Lavanya, Associate Professor, IT
Dr. K. Anupriya, Associate Professor, IT

Advisory Committee:

1) Dr. B. Srinivasa Rao,Professor,IT
2) Dr. S. Naganjaneyulu,Professor ,IT
3) Dr. B. Rama Devi, Associate Professor, IT

Organizing Committee:

1. Mrs.M.Hemalatha, Senior Asst. Professor,IT
2. Mr.K.Phaneendra, Asst. Professor,IT
3. Mrs.S. Nagamani, Asst. Professor,IT
4. Mr.G.Rajendra, Asst. Professor,IT
5. Mr.Michael Sadgun Rao Kona, Asst. Professor,IT
6. Mr.K.Raja Sekhar, Asst. Professor,IT
7. Mrs.A.Sarvani, Asst. Professor,IT
8. Mr.V.V.Krishna Reddy, Asst. Professor,IT
9. Mr.Ch. Sambasiva Rao, Asst. Professor,IT
10. Mr.K.Raviteja, Asst. Professor,IT
11. Mr.A.V.N.Reddy, Asst. Professor,IT

NATIONAL LEVEL ONLINE FACULTY DEVELOPMENT PROGRAM
On
SOFT COMPUTING, MACHINE LEARNING AND APPLICATIONS
(24th – 28th June 2021)

Organized by
Department of IT
(Accredited by NBA under Tier-I)

(Rank Band: 201-250)   (Under Tier-I)

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(Autonomous)

Accredited by NAAC & NBA (CSE, IT, ECE, EEE, MECH)
ISO 9001:2015 Certified Institution
Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada
L.B. REDDY NAGAR, MYLAVARAM, KRISHNA DIST., A.P.-521 230.

ABOUT THE INSTITUTE

LBRCE was founded through Lakireddy Bali Reddy charitable trust in 1998 which stands for quality technical education which is exemplified by the continuous strides it has taken towards excellence in the last two decades. Started with an intake of 180 and now our intake is of 1152 Students. It has got Autonomous Status in the Year 2010 from UGC, which is extended for a period of 06 years in 2016. We were accredited with NAAC and NBA (CSE, IT, ECE, EEE & MECH) under Tier-I valid up to 2021-22. The College has also been awarded 2(f) and 12(B) status, apart from the recognition as a 'College with Potential for Excellence (CPE)' from the UGC. We take pride to have large pool of well-qualified and experienced faculty.

About the Department:

The department of Information Technology was established in the year 1999 with an intake of 40 seats in UG program. Student intake is increased from 40 to 60 in the year of 2001. Student intake is increased from 60 to 120 in the year of 2018. It is the one of the most emerging programme in LBRCE. As IT plays a remarkable role in almost all sectors, due to this the need of Information Technology Engineers increased who could gain knowledge in recent technologies. Our department is intended to train the students in elementary courses and cutting-edge technologies like Cloud Computing, Android application, Big data, Digital marketing, Social networking and Digital communication for solving many social and business problems.

Department Vision:

- To emerge as one of the most preferred department for the budding engineers, aspiring to be successful IT professionals.

Department Mission:

- To inculcate team skills and leadership qualities in the student though projects, seminars and group activities.
- To impart quality education with a well-designed curriculum, consistent with industry requirements, that equips the student to face the career challenges.
- To cultivate the qualities of social awareness and service to the humanity among students.
- To extend the student's learning beyond the curriculum, through workshops on cutting edge technologies.

Topics to be covered:

- Research issues in soft computing and machine learning
- Strategies for machine learning - Supervised, Unsupervised and Reinforcement Learning
- Feature Selection/Extraction, Dimensionality Reduction, Principal Component Analysis
- Decision Tree Learning, Deep Neural Networks
- Soft computing for machine learning
- Support Vector Machine
- Neural Networks, Perception, Back Propagation Algorithms
- Ensemble Learning
- Fuzzy Logic, Fuzzy C and Rough K Means Clustering,
- Deep Learning, CNN

Key Takeaways:

After the completion of the FDP, the participants will be able to:

- Develop basic understanding of Soft Computing and Machine Learning Concepts.
- Understand different Soft Computing algorithms.
- Work on Various Python tools used for Soft Computing Techniques.
- Understand status of the Data Analysis using Machine Learning and Soft Computing approaches in Real Time Applications.
- Explore Hands-on Experiences on all topics.

About the FDP:

The current trend in technology is to integrate intelligent attributes in the existing systems so as to improve their performance and make them autonomous. Both Machine learning and Soft Computing have become integral part of intelligent systems and have already been used to solve a wide range of problems both from science and technology. The objective of this five day workshop is to introduce the participants with the basic concepts, emerging trends and applications of neural networks, fuzzy logic, evolutionary computing and machine learning concepts with particular focus on supervised and unsupervised learning techniques. This workshop will be useful for faculty of engineering and sciences, research PG scholars, Industry people who are interested in the learning of Soft computing and Machine Learning models.

Objectives of the FDP:

- To disseminate the knowledge of Machine Learning and Soft Computing Techniques among students, researchers and academicians.
- To provide basics of Data Analysis and the use of Soft Computing Algorithms in real applications
- To provide conceptual understanding of different soft computing algorithms in feature selection and classification.
- To provide Hands-on experience on various Python tools for applying Machine Learning and Soft Computing Algorithms.

List of Participants:

S.No	Name	Designation	Department	Institute Name and Address
1.	A.KIRAN KUMARI	Assistant Professor	ECE	Siddharth institute of science and technology
2.	Adluri Vijaya Lakshmi	Assistant Professor	CSE	B. V. Raju Institute of Technology
3.	ANNAPAREDDY V N REDDY	Assistant Professor	IT	Lakireddy Bali Reddy College of Engineering and mylavaram
4.	Ayesha Naureen	Assistant Professor	CSE	B V Raju Institute of Technology
5.	B L N PHANEENDRA KUMAR	Assistant Professor	CSE	V R Siddhartha Engineering College, Vijayawada
6.	Boorsu udaykumar	Associate Professor	CSE	Jntuacea Anantapur
7.	CHALAMPALEM KEERTHI	Assistant Professor	ECE	Siddartha institute of science and technology, Puttur
8.	CHALLA MAHESH KUMAR	Assistant Professor	CSE	B V RAJU INSTITUTE OF TECHNOLOGY, NARSAPUR MEDAK
9.	DEVA KUMAR S	Assistant Professor	CSE	VFSTR DEEMED TO BE UNIVERSITY
10.	Dinesh Valluru	Assistant Professor	ICE	Anna University, Chennai
11.	Dr AshokReddy Pamulapati	Associate Professor	CSE	Lakireddy BaliReddy College of Engineering
12.	Dr DBV JAGANNADHAM	Professor	ECE	GAYATRI VIDYAPARISHAD COLLEGE OF ENGINEERING(A)
13.	Dr Devarakonda Srinivasa Rao	Assistant Professor	Biotechnology	Acharya Nagarjuna University
14.	Dr K. Lavanya	Associate Professor	IT	Lakireddy Bali Reddy College of Engineering , Mylavaram
15.	Dr Morampudi Mahesh Kumar	Assistant Professor	CSE	SRM UNIVERSITY-AP
16.	Dr Ramesh Kumar Panneerselvam	Assistant Professor	CSE	V R Siddhartha Engineering College, Vijayawada
17.	Dr. B. Rama Devi	Associate Professor	IT	Lakireddy Bali Reddy College of Engineering
18.	Dr. E. Sanjeeva Rayudu	Associate Professor	Civil Engineering	G Pulla Reddy Engineering College
19.	Dr. G Srinivasa Rao	Professor	CSE	Universal college of Engineering and technology, Guntur
20.	Dr. Lalitha Kumari Gaddala	Assistant Professor	CSE	Prasad V Potluri Siddhartha Institute of Technology
21.	Dr. Ravikanth Galradinne	Professor	ECE	BVC COLLEGE OF ENGINEERING RAJAHMUNDRY
22.	Dr. Tammineni Sreelatha	Professor	ECE	Siddharth Institute of Engineering and Technology,

				Puttur
23.	Dr. Veerraju Gampala	Associate Professor	CSE	Kl University, guntur
24.	Dr.K.Venkateswara Rao	Associate Professor	CSE	VLITS, Vadlamudi
25.	Dr.Katta Subba Rao	Professor	CSE	B V Raju Institute of Technology, Narsapur
26.	Dr.M.Aruna Safali	Associate Professor	CSE	Vijayawada
27.	G.NAGA PAVANI	Assistant Professor	CSE	Vignan's lara institute of technology & sciences
28.	Gavini Naga sucharitha	Assistant Professor	ECE	Vignans Lara institute of technology and sciences
29.	Haripriyakasaraneni	Assistant Professor	CSE	St.Josephs degree and PG college Hyderabad
30.	J David Sukeerthi kumar	Assistant Professor	CSE	Santhiram Engineering College, Nandyal
31.	J v pavan chand	Assistant Professor	EEE	Lakireddy Bali Reddy College of Engineering
32.	Jaya prakash Budeti	Others specify_____	IT	Lakireddy balireddy college of engineering, krishna dis
33.	Jitendra Soni	Assistant Professor	CSE	Institute of Engineering & Technology, Davi Ahilya University, Indore
34.	JONNALA SUBBA REDDY	Associate Professor	Mechanical Engineering	Lakireddy Bali Reddy College of Engineering, Mylavaram
35.	KARUNA LATHA THANUKULA	Assistant Professor	CSE	V.S.R P.G COLLEGE
36.	KONA KRISHNA PRIYA	Assistant Professor	CSE	Rajiv Gandhi University of Knowledge Technologies, IIIT,Nuzvid,AP.
37.	KOTRA VINEELA	PG Student	CSE	Vignan Lara of institutions and technology ,vadlamudi,Tenali
38.	KSRK SARMA	Assistant Professor	CSE	VIDYA JYOTHI INSTITUTE OF TECHNOLOGY
39.	KUDARAVALLI DEEPIKA	Assistant Professor	CSE	Vignan's Lara Institute of Technology and Science
40.	Kunda Suresh Babu	Assistant Professor	CSE	VIT AP University Amaravathi
41.	M A PANDIYAN	Assistant Professor	ECE	SIDDARTHA INSTITUTE OF SCIENCE AND TECHNOLOGY
42.	Maddela Sailaja	Assistant Professor	CSE	PVPSIT, Kanuru, Vijayawada
43.	MAHESWARA KISHORE KUMAR	Assistant Professor	CSE	SVIST TIRUVURU
44.	Mr. MUNTIMADUGU VIJAYA KANTH	Assistant Professor	CSE	JNTUA COLLEGE OF ENGINEERING, ANANTHAPURAMU, ANDHRA PRADESH.
45.	Mr. Sivaprasad Lebaka	Associate Professor	ECE	Siddartha Institute of Science and Technology, Puttur

46.	Mrs. Y. Surekha	Assistant Professor	CSE	Prasad V Potluri Siddhartha Institute of Technology
47.	NARDALA CHAMANTHI	Assistant Professor	ECE	SIDDARTHA INSTITUTE OF SCIENCE AND TECHNOLOGY
48.	Neeragatti Surya Narayana	Research Scholar	Management	University of Hyderabad
49.	P Madhavi Chowdary	Assistant Professor	ECE	Siddartha institute of science and technology
50.	P. Jhansi Devi	Assistant Professor	CSE	B V Raju Institute of Technology
51.	P. Madhuri Paul	Assistant Professor	Department of MCA	St. Ann's College for Women, Mehdipatnam, Hyderabad
52.	Padmapriya.Kondabathini	PG Student	CSE	Vignan's LARA Institute of Technology & Science - Vadlamudi
53.	PANTHANGI VENKATESWARA RAO	Assistant Professor	CSE	B V Raju Institute Of Technology, Narsapur Medak
54.	Penujuri Manasa	Assistant Professor	CSE	Pvkk Institute of Technology , Anantapur
55.	Prabaharan G	Assistant Professor	CSE	B.V.Raju Institute of Technology
56.	Amjan. sk	Professor	CSE	BVRIT Narsapur
57.	R PRATHAP KUMAR	Assistant Professor	CSE	VFSTR Deemed to be University
58.	Radhesyam Vaddi	Assistant Professor	IT	VR Siddhartha Engineering College
59.	Rajasekhar Kommaraju	Assistant Professor	IT	LakiReddy Bali Reddy College of Engineering
60.	S N Lakshmi Malluvalasa	Assistant Professor	CSE	Vignan's Lara Institute of Technology & Science, Vadlamudi, Guntur district
61.	S Phani Praveen	Assistant Professor	CSE	PVPSIT , VIJAYAWADA
62.	S Sindhura	Assistant Professor	CSE	KLU , Guntur
63.	Sarvani Anandarao	Assistant Professor	IT	Lakireddy Balireddy College of Engineering
64.	SEELAM.INDHU	Assistant Professor	CSE	Andhra Loyola college
65.	Shilpa Thoutireddy	Assistant Professor	CSE	BVRITN
66.	SREEDEVI CH	Assistant Professor	CSE	BVRIT,Narsapur
67.	SRI BALA MALLADI	Assistant Professor	CSE	Lakireddy Balireddy College of Engineering
68.	Swapna Veccha	Others specify_____	CSE	Vignans Lara Institute of Technology and Science
69.	V V krishna reddy	Assistant Professor	IT	Lbrce Mylavaram
70.	Venkata Sumanth Mareedu	Assistant Professor	CSE	SRK Institute of Technology

71.	Venugopal boppana	Assistant Professor	IT	NRI Institute of Technology, Agiripalli
72.	VIDYA D	Assistant Professor	ECE	Siddharth institute of science and technology, puttur
73.	Z.Sunitha Bai	Assistant Professor	CSE	R.V.R&J.C College of Engineering
74.	Zareena Noorbasha	Assistant Professor	CSE	RVR &JC college of engineering,Guntur