



Academic
Staff College

“Recent advancements in VLSI Chip Devices/Circuits and its Applications”

List of Content

1. Circular
2. Poster and Schedule
3. Report
4. Attendance
5. Certificate



SERB Sponsored work shop on "Recent Advancements in VLSI Chip Devices/Circuits and its Applications" by Microelectronics Research Group, Department of ECE-Reg.

Registrar <registrar@kluniversity.in>

Wed 7/13/2022 2:59 PM

To: PRESIDENT <president@kluniversity.in>; Havish <havish@kluniversity.in>; Raja Harin koneru <krh@kluniversity.in>; PRO-CHANCELLOR <prochancellor@kluniversity.in>; Vice Chancellor - KLU <vc@kluniversity.in>; Dr.G.P.S. Varma, Vice- Chancellor <gpsvarma@kluniversity.in>; N Venkat Ram <venkatram@kluniversity.in>; Dr Jagadeesh Anne <drjagadeesh@kluniversity.in>; Dr.Veera raghavaiah <rvagridirector@kluniversity.in>; KRISHNANANDA P INGLE <krishna_agri@kluniversity.in>; P SENTHIL MURUGAN <agilanagri2008@kluniversity.in>; Jamindar Buddiga <jamindarbuddiga@kluniversity.in>; MSR Krishna <msrkrishna_bt@kluniversity.in>; PILLI MANASA <pmanasa@kluniversity.in>; MANOHARMAYUM DOLPRIYA DEVI <dolpriya.ag@kluniversity.in>; ATUL SINGH <atulsingh@kluniversity.in>; Shiva Sai Prasad <shivsaiprasad@kluniversity.in>; Dr.B.Rama Devi <bonuramadevi@kluniversity.in>; Dr.M.Gayathri <gayathrimungara@kluniversity.in>; ANZER UL ISLAM <anzer.gene@kluniversity.in>

1 attachments (12 MB)

Final VLSI Workshop Brochure-SERB.pdf;

Ref: KLEF/RO/ECE/2022-23

Date: 13.07.2022

Orders of the Vice Chancellor dt.13.07.2022

CIRCULAR

Sub: SERB Sponsored work shop on "**Recent Advancements in VLSI Chip Devices/Circuits and its Applications**" by Microelectronics Research Group, Department of ECE-Reg.

Ref: Letter dated 05.07.2022 from Dr.K. Srinivasa Rao, Microelectronics Research Group
Head forwarded by Deputy HoD-ECE.

This is to inform that Microelectronics Research Group, Department of ECE, is conducting SERB Sponsored workshop on "**Recent Advancements in VLSI Chip Devices/Circuits and its Applications**" as per the details given below.

Date : 25th-29th, July, 2022

Registration Link :
<https://docs.google.com/forms/d/1lpBTQcgmFP8iljAKY258g0AKIZ9n7phMwmijgsSyM7w/edit>

Chair : Dr.M.Suman, Professor & HOD, Department of ECE, KLEF
Technical Chair : Dr.K.Srinivasa Rao, Professor, Department of ECE, KLEF
Convenor : Dr.K.Girija Sravani, Associate Professor, Department of ECE, KLEF

All the faculty members and students can participate in the workshop.

Brochure of the workshop is enclosed herewith.



I/c.REGISTRAR

Encl: Brochure.

Mail & Hard copy to: Hon'ble President, KLEF

Mail to: Hon'ble Vice-Presidents, KLEF

Mail & Hard copy to: Hon'ble Pro Chancellor

Mail & Hard copy to: Hon'ble Vice Chancellor

Mail & Hard copy to: Hon'ble Pro Vice Chancellor (Administration)

Mail to: Advisor – NAAC & Hyderabad Operations - Prof. K.Koteswara Rao

Mail to: All Advisors / All Deans / All Principals / All Directors

Mail to: Controller of Examinations-Dr.A.S.C.S.Sastry

Mail to: Principal-Engg.College /HoD-Business School

Mail to: Vice-Principal-Coll. of Science & Humanities & Coordinator-FED.Dr.VKR

Mail & Hard copy to: HoDs.. AI&DS / BT / CE / CSE / Comp.Engg. / CS&IT / ECE / EEE / ECM / ME

HoDs..Maths / PHY / CHEM / ENG / BES-I / BES-II

HoDs.. BBA / COM / HM / CSS / CA&MS / Law / Architecture / Pharmacy / CSA / Arts

Mail & Hard copy to: Head of Division..Communication Skills / Soft Skills / Quant & Reasoning

Mail to: All Dy. HoDs / All Alt. HODs

Mail to: KL H HoDs..CSE / AI&DS / ECE / Coordinator-FED

Mail to: All faculty

Mail to: All students

Thanks & Regards



Dr. A. Jagadeesh
I/c. REGISTRAR

KONERU LAKSHMAIAH EDUCATION FOUNDATION

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

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Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in





KL
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**Academic
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FIVE DAYS FDP Program on
**WORKSHOP ON "RECENT
ADVANCEMENTS IN VLSI
CHIP DEVICES/CIRCUITS
AND ITS APPLICATIONS"**

On 25-07-2022 TO 29-07-2022

RESOURCE PERSONS

Dr. Gopal Rawat, NIT Hamirpur,

Dr. KaviChanran, NIT Silchar,

Dr. A. Narendra Babu, LBRCE,

Dr. Sangeetha singh, NIT Patna,

Dr. Keerthi, BVRIT, JNTU Hyderabad,

Dr. Ekta Goel, NIT Warangal

ORGANISED BY

Academic Staff College



**VENUE:
Sunflower Hall**

KONERU LAKSHMAIAH EDUCATION FOUNDATION

Guntur Distric, Andhra Pradesh, Pin : 522 502 | Ph : 08645 - 350 200 | www.kluniveristy.in

Science and Engineering Research Board
(a statutory body of the Department of Science & Technology, Government of India)

Brief report of the organized event
(Financial Assistance to Seminar / Symposia)

Date: 30.07.2022

SERB Sanction / File No: SERB File Number: SSY/2022/000201

1. Name of Academic Institution / University / Society etc. under whose auspices the Seminar-/ Conference / Workshop / Symposium etc. was organized:
Koneru Lakshmaiah Education Foundation (Deemed to be University), Vaddeswaram, Guntur, A.P

2. Title of the Seminar / Conference / Workshop / Symposium etc.:

"Recent advancements in VLSI Chip Devices/Circuits and its Applications"

3. Duration / Period of the organized event: 5 Days (25/07/2022 to 29/07/2022)

4. Grant Sanctioned: Rs.75,000/-

5. Summary of the event (Max. 1000 Words):

National Workshop on **"Recent advancements in VLSI Chip Devices/Circuits and its Applications"** Organized by Microelectronics Research Group, Department of Electronics & Communication Engineering, KL University, Green Fields, A.P, India

On behalf of the Microelectronics Research Group, we are happy to announce that we have conducted 5-Days National Workshop on **"Recent advancements in VLSI Chip Devices/Circuits and its Applications"** on 25 to 29th July 2022 successfully.

We have invited resource persons from premier Institutions like IIT's NITS, Deemed University and other Engineering Institutions. We have invited all higher academic officials Hon'ble Vice Chancellor, Hon'ble Pro-VC, Respected Principal, Deans, HoD's, Faculty members, participants from other Institutions, research scholars, and Press & Media for Inauguration function on 25th, July, 2022@9.30. This workshop is supported by Science Engineering Research Board (SERB), **Department of Science and Technology (DST), New Delhi**.

Our Hon'ble Chancellor, Vice Chancellor, Principal, Head of the Dept, other dept Deans, Heads, Professors attended the inauguration of the Workshop. Our Hon'ble Vice Chancellor Dr.GPS Varma attended inauguration session and shared his valuable speech on **"importance of miniaturization concepts in the present era"**. Our Hon'ble Pro-VC Dr.N Venkatram shared his valuable speech on **"latest developments on IC"** and our institution collaborated with IIT Hyderabad, IIT Bombay and IISc Bangalore. He says that this kind of multidisciplinary research works gives lots important and yields to the University and also to the Nation. Our Principal, Dr.Rama Krishna Rao says, microelectronics is leading our electronics industry and this type of research forums really gives good knowledge to the research Scholars and students.



Day-1

Morning Session: We have called **Dr.Gopal Rawat** from **NIT Hamirpur** for first day morning session and he gave a talk “**Future roadmap Electronics Industry**” and afternoon session we have **Dr.K.Srinivasa Rao**, given talk on "Recent development of semiconductor nanoscale devices" and we have **Dr.Balawindar Rai**, NITTTR, Chandigarh, given talk on “**Multi Gate TFET Devices**”.

Day-2

Dr.KaviChanran from **NIT Silchar** has given a talk on "**Analysis of Source Engineered Asymmetric Tunnel FETs**". He has given clear understanding about TFET devices and its issues and possible solutions. **Dr.A.Narendra Babu**, LBRCE, JNTU Kakinada has given a talk on "**Learning algorithms for VLSI design automation**". **Dr.Santosh Kumar Viswakarma**, IIT Indore has given talk " **Hardware Accelerator for VLSI Circuits**".

Day-3

Dr.Sangeetha singh from **NIT Patna** given a talk on "**Charge-Plasma FET and State of the Art Advanced Semiconductor Devices**". She has focus on TFET devices, particularly Charge Plasma FET for Bio-Sensing applications. **Dr.Keerthi**, BVRIT, JNTU Hyderabad has given a talk and hands on session " TCAD tool for device Simulation" **Dr.Ekta Goel** from **NIT Warangal** given talk on " **Semiconductor devices and Engineering solutions towards Industry Needs**."

Day-4

Dr.Asish Raman from **NIT Jalandhar** has given a talk on "**Charge-Plasma FET and State of the Art Advanced Semiconductor Devices**". He has talk about present state of all kind of VLSI Chip Devices and its applications. **Dr.Ashok Kumar**, SVEC, JNTU Kakinada has given hands on session "TCAD-Circuit simulation by Synopsys". **Dr.Suman Latha Tripathy**, from Lovely Professional University has give talk and hands on session. " TCAD Tools device Simulation"

Day-5

Morning Session, we have **Dr.Girish Wadwa**, **NIT Jalandhar**, given a talk on "TFET Devices towards for Biosensing Applications". He discussed very important points of TFET Devices, variety of biosensors, Sensing applications from TFET etc. **Dr.K.Girija Sravani**, "**Aging challenges for AI applications**" and last Session is talk given by **Dr.Biswajit Jene**, **VIT University Chennai** on "TCAD Tool for TFET Device Simulation-Hands on Training".

The total number of participants for this workshop is 100 members; they have attended from around the state, few members from out of state too. The organizing committee has done excellent job, without any discrepancy and disturbance in any aspects.. Finally, as Convener **Dr.K.Girija Sravani** and Co-Conveners **Dr.B Balaji & Dr.K.Srinivasa Rao** says vote of thanks to resources, & participants for making the workshop a grand success.



(Convener Signature)

Participation Information:

Sl.No	Participation in the event	No's
I	Key-not speakers	10
II	Senior Scientist	5
III	Young Scientist	25
IV	Postgraduate Students	35
V	Undergraduate Students	10
VI	Industry persons	
VII	Other category (Please specify each category)--Faculty Members	30

Photographs Section: Please paste high resolution photographs in given spaces below or may be submitted directly on online / email in JPEG format.

1. Inaugural Session

WELCOME To

SERB Sponsored National Workshop

On

Recent Advancements in VLSI Chip Devices/Circuits and its Applications

25 - 29th July 2022

Organized by

Microelectronics Research Group (MERG)

Department of Electronics & Communication Engineering

Koneru Lakshmaiah Education Foundation (KL Deemed University), Vaddeswaram, Guntur District, Andhra Pradesh, India.





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On
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**Organized
by**

**Microelectronics Research Group (MERG)
Department of Electronics & Communication Engineering
(DST - FIST Sponsored Department)
Koneru Lakshmaiah Education Foundation**



Vote of Thanks



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On

**Recent Advancements in VLSI Chip
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Koneru Lakshmaiah Education Foundation**



COORDINATOR

Dr. K. Girija Sravani, Assoc. Professor, Dept of ECE, KL Deemed to be University





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Dr. G. Pardha Saradhi Varma, Vice-Chancellor, KL Deemed to be University



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Dr. N. Venkatram, Pro-Vice Chancellor, KL Deemed to be University





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Dr. Rama Krishna Rao TK Principal, KL Deemed to be University



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Dr. M. Suman, HOD, Department of ECE, KL Deemed to be University

2. General Photograph



**SERB Sponsored National Workshop
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Time:
10.00 AM to 11.30 AM

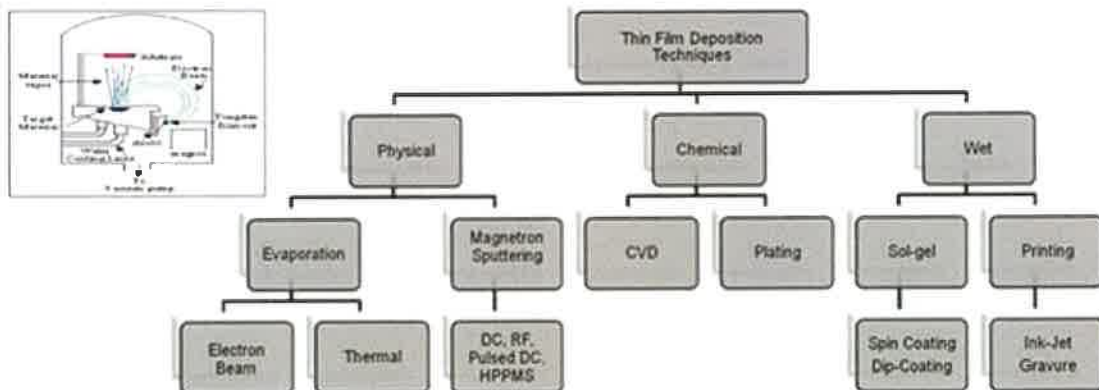
Topic:
Future Roadmap of Electronics
Industry



Dr. Gopal Rawat,
NIT Hamirpur

TF Deposition/Synthesis Methods

➤ There is large variety of techniques for synthesis/TF Deposition.



➤ For electronic devices, it is very important that the device performance & growth of nanostructures is repeatable & cost effective.



BUSINESS FOOTPRINT OF ELECTRONICS INDUSTRY



Key Segments of Electronics Industry

- Semiconductor supply and manufacturing services
- Industrial Equipment
- Networking and Communication Equipment
- Computer and Office Products
- Medical Devices
- Consumer electronics and home appliances

What are Electronics Industry Value Chain ?

1. Product & Service Development
2. Procurement, Supply, & Manufacturing



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Time: 2p.M to 3.30P.M

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Koneru Lakshmaiah Education Foundation




**Topic: Multi-Gate
Devices for VLSI Design**

**Dr. Balawindar Raj, NITTTR
Lucknow**



3. General Photograph




Nanoscale Device: Problems

The problem is not only at process level but also at device design level. The SCE (short channel effects) which is basically roll-off of threshold voltage due to interference of drain field at source side.

SCE: Not only barrier lowering problem but also several other issues have come up such as:

- Punch through
- Hot electron effect
- source/drain series resistance,
- Leakage currents.

Dept. of ECE



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Dr. K. Srinivasa Rao, KL Deemed to be University Head-Microelectronics Research Group



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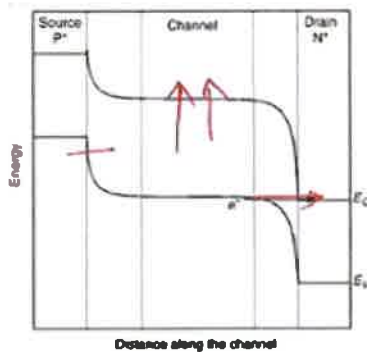
Time:
2.00 PM to 3.30 PM



Topic:
Hands-on Session: nm CMOS PDK,
EDA Tools for Circuit Design

**Dr. Ekta Goel,
NIT Warangal**

Ambipolar behaviour:



**Figure 8 Band Diagram of TFET in ambipolar state
when Gate voltage is negative**

- TFET devices have a tendency of showing ambipolar behaviour i.e it can generate current at negative V_{gs} .
- An introduction of negative V_{gs} makes the bands of the channel move upward thus making it aligned with the drain side CB.
- Charge carriers move from VB of channel to CB of drain.



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Time: 11A..M to 12.30P.M

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Topic: TCAD-Circuit
simulation by Synopsys

**Dr.P.Ashok Kumar, SVEC,
JNTU Kakinada**



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**Time:
2.00 PM to 3.30 PM**

**Microelectronics Research Group (MERG)
Department of Electronics & Communication Engineering
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**Topic:
Hardware Accelerator**

**Dr.Santhosh Kumar,
IIT Indore**



Cloud AI Computing

In the cloud, GPU, especially NVIDIA's series GPU chip, have been widely used to do classification and to train deep neural networks. The GPU with thousands of computational cores can achieve 10-100x application throughput compared to CPUs alone. GPU accelerators are still main stream for machine learning for many of the largest web and social media companies. NVIDIA's Tesla V100 is specially designed for Deep learning which incorporates Tensor Cores with GPU cores, could provide 120 TFLOPS (120 trillion floating point instructions per second) processing power. Moreover, NVIDIA's GPU also has an excellent software development environment, which is one of the most widely used platforms in the field of AI training.



4. General Photograph

Design and Performance Optimization of Dopingless GAA-Nanowire TFET and its Sensor Application

Presented by -
Dr. Ashish Raman
NIT Jalandhar
ramana@nitj.ac.in



Department of Electronics and Communication Engineering
Dr. B. F. [redacted] of Technology, Jalandhar
Punjab, 144011



Introduction: Devices for CMOS Extension

- Carbon Nanotube FETs ✓
- 2D Material Channel FETs ✓
- Nanowire FETs ✓
- Tunnel FETs

Fabrication Issues

As per IRDS

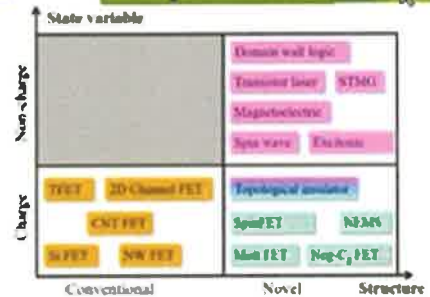


Fig. 3. IRDS Transistor Types [3]

- Other Solutions:**
- ❑ Integrated high-k dielectrics with EOT <0.5nm and low leakage.
 - ❑ Integrated contact structures that have ultralow contact resistivity.
 - ❑ Achieving high hole mobility in III-V materials in FET structures.



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Time: 2p.M to 3.30P.M

Microelectronics Research Group (MERG)
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**Topic: Aging challenges for AI
applications**

**Dr.K.Girija Sravani,
Associate Professor, KLU**



Dr. Biswajit Jena
Assistant Professor (Sr. G2)
School of Electronics Engineering (SENSE)



Micro and Nano Devices Group

TCAD TOOLS FOR DEVICE SIMULATION

Area of Research: Nano Scale Device Modeling and Simulation,

Technology Computer Aided Design (TCAD)



- Technology Computer Aided Design (TCAD) is the integration of **computational methods** and **software tools** for the design and study of semiconductor devices and their production processes. Usually a single device, or small group of devices is analyzed using TCAD tools.
- Here, the device, or, in the early stages of production, a sub-region of a wafer, is modelled by a binary representation of its properties. e.g., its geometry, its material, dopant concentrations, and temperature distribution in two or three dimensions.
- Process simulators are a set of numerical simulation tools that show how the real device is made. They show how the steps in the process flow.
- Lastly, the semiconductor transport equations are solved in the newly made transistor by a device simulator, which figures out how the transistor will behave electrically.
- **Using TCAD, predictions will be made about technological issues before the actual devices have to be made. This cuts down on the cost and time of developing a process.**

A handwritten signature in blue ink, likely belonging to the Principal of the college.

PRINCIPAL
ACADEMIC STAFF COLLEGE
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
Green Fields, VADDESWARAM-522 302

A handwritten signature in green ink, likely belonging to the Registrar of the foundation.

REGISTRAR
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
Green Fields, VADDESWARAM-522 302.
Guntur District, Andhra Pradesh.

A handwritten signature in black ink, likely belonging to the Convener of the group.

(Convener Signature)



List of Participants

S.No	Emp No	Name of the employee	Designation	Department
1	5530	MS.NANDIKATTU V V N J SRI LAKSHMI	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
2	5590	DR. KOTESWARARAO LINGATHOTI	PROFESSOR	ELECTRONICS AND COMMUNICATION ENGINEERING
3	5616	DR.S ARUN METHA	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
4	5630	DR.SHRUTI SUMAN	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
5	5635	DR.B SIVA KUMAR REDDY	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
6	5675	DR. K PRAGHASH	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
7	5677	DR.BISWAJIT JENA	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
8	5688	DR.DAMBARUDHAR SETH	PROFESSOR	ELECTRONICS AND COMMUNICATION ENGINEERING
9	5692	DR.SUBHASHISH TIWARI	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
10	5754	MR.P SEETHA RAMAKRISHNA	ASST.PROF.	COMPUTER SCIENCE AND ENGINEERING
11	5759	DR.SOURABH UPADHYAY	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
12	5772	Ms.TATIANA CHAKRAVORTI	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
13	5808	DR.M.SIVA GANGA PRASAD	PROFESSOR	ELECTRONICS AND COMMUNICATION ENGINEERING
14	5884	DR.ARJUNA MUDULI	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
15	5891	DR.EEPURI KIRAN KUMAR	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
16	5904	DR.KONDAMADUGULA SITA	ASSOC.PROF.	ELECTRONICS AND COMPUTER ENGINEERING
17	5907	DR.S KARTHICK	ASSOC.PROF.	ELECTRONICS AND COMPUTER ENGINEERING
18	5927	DR. ARAVIND KILARU	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
19	5934	DR.KALYANA SARAVANA SUMANAM	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
20	5944	DR. NIRAJ KUMAR	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
21	5954	DR.NAGANGABAM PHALGUNI SINGH	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
22	5959	DR. MUTHUNADAR ACTLIN JEEVA	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
23	5971	DR. S SANJAY	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
24	6027	DR.RAHUL BOSU	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
25	6075	MR.RAKESH PALISETTY	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
26	6213	DR.NAREN DAS	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
27	6221	MR. R.PRASHANTH	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
28	6224	DR.ATUL KUMAR	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
29	6240	DR. RAVI BODA	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
30	6303	DR.PATCHA SATYA SRINIVAS BABU	PROFESSOR	ELECTRONICS AND COMMUNICATION ENGINEERING



31	6311	DR.PRAVEEN KUMAR POOLA	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
32	6312	DR. SUDHARSANA RAO POTTURU	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
33	6318	DR.RAHUL HARISHCHANDRA MESHAM	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
34	6329	DR. AVINASH VAIDYA	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
35	6362	DR.HABIBULLA KHAN	PROFESSOR	ELECTRONICS AND COMMUNICATION ENGINEERING
36	6365	DR. ARAVINDHAN ALAGARSAMY	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
37	6439	DR.MELINGI SUNIL BABU	PROFESSOR	ELECTRONICS AND COMPUTER ENGINEERING
38	6454	DR.SHAIK HASANE AHAMMAD	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
39	6580	Dr.THIRUMURU RAMA KRISHNA	PROFESSOR	ELECTRONICS AND COMMUNICATION ENGINEERING
40	6634	DR. THIRUPATHAIAH KOLA	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
41	6663	MR. AMIT VERMA	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
42	6697	DR. ASHWINI KUMAR VARMA	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
43	6719	MR. HITESH TEKCHANDANI	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
44	6720	MR. SRAVAN KUMAR GUNTURI	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
45	6722	MRS. PRASANNA LAKSHMI AKELLA	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
46	6730	DR. ADITYA JAPA	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
47	6895	DR.BASUA DEBANANDA	ASST.PROF.	ELECTRICAL AND ELECTRONICS ENGINEERING
48	6937	DR. VIJAY RAO KUMBHARE	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
49	6942	DR. BALKRISHNA GHANAHSHYAM KSHIRSAGAR	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
50	6958	Dr.ABHISHEK PAHUJA	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
51	7100	DR.ABHISHEK KUMAR	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
52	7116	Dr.ASHISH KUMAR	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
53	7131	Dr.LOKENDRA SINGH	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
54	7143	Dr.ARVIND R SINGH	ASST.PROF.	ELECTRICAL AND ELECTRONICS ENGINEERING
55	7158	Dr.DEBAJIT DEB	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
56	7207	Dr.SUMIT BHUSHAN	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
57	7233	Dr.VASIMALLA YESU DASU	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
58	7238	Dr.SUNIL KUMAR	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
59	7355	Dr.S.MOHAMMED IBRAHIM	ASSOC.PROF.	ELECTRICAL AND ELECTRONICS ENGINEERING
60	7400	DR.KOTAMRAJU SUBBA RAO	PROFESSOR	ELECTRICAL AND ELECTRONICS ENGINEERING
61	7501	Dr.VIVEKANANTHAN VENKATESWARAN	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
62	7590	Dr.SHUBHRO	ASSOC.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING
63	7605	Dr.V G N S PRASAD	ASST.PROF.	ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE OF APPRECIATION



This is to certify that

Mr. /Prof. /Dr **DR. ARAVIND KILARU** Has participated in a Two-week Workshop on **Workshop on "Recent Advancements in VLSI Chip Devices/Circuits and its Applications"** Conducted by **Academic Staff College** of Koneru Lakshmaiah Education Foundation – Deemed to be University Vaddeswaram, Guntur, A.P.

From **25.07.2022 to 29.07.2022**


Principal
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