Jain College of Engineering Belagavi

Approved by AICTE New Delhi, Affiliated to VTU Belagavi and Recognized by Government of Karnataka

Department of Electronics and Communication Engineering

Volume - 4 (April - June 2022)

SPECTRUM 2022

MESSAGE FROM DIRECTOR

I am happy to see that, the department of ECE is bringing out 'SPECTRUM 2022'. I wish you all the best to students and staff.

-Dr. R. G. Dharwadkar

MESSAGE FROM PRINCIPAL

On this bright day, I feel proud to see the progress that this Evolve magazine has made over the years. It pleases me to see the involvement which the students have in both the technical and non-technical zones. I would like to see a lot more exciting content and an increase in the students' contribution over the upcoming years.

-Dr. J. Shivakumar

MESSAGE FROM HOD

I am gratified to know that the department of Electronics & Communication Engineering is bringing out the second issue of our Departmental magazine "Spectrum" of the second quarter of the academic year (2021-2022). This is an informative magazine about the faculty and student achievements of the department in the period. I wish the department faculty and students a very big success in all their ventures. I also applaud the coordination and efforts behind the team to bring out this issue. I wish them all success.

-Dr. Krupa Rasane

ABOUT THE DEPARTMENT

The Electronics & Communication Engineering department is established in the year 2010.This is one of the premier departments in the college and is most preferred by the student community. The department is affiliated to VTU and has Research Centre established in the year 2018. Department has Professional Student Bodies like JCE IEEE Student Branch and IEEE Women in Engineering Bodies. It also has Department Staff and Student Association named as ECHO.

VISION OF DEPARTMENT

"To impart quality technical education for developing globally competent, ethically sound Electronics and Communication Engineers and innovators."

MISSION OF DEPARTMENT

- To provide conducive environment through structured student centric, teaching-learning process.
- To nurture needs of society by infusing scientific temper in students and to grow as a centre of excellence with effective industry-institute interaction.
- To inculcate self learning skills, entrepreneurial ability and professional ethics.

Department Activities

1. Poster Presentation Competition On Account of World Earth Day

On the occasion of world earth day under the banner of ECHO and IEEE poster presentation competition was conducted on 22/04/2022 at department level. Around 20 students had participated and demonstrated their creativity through their poster about saving earth through idea of design thinking for sustainability.

2. Workshop on "Professional Documentation using LyX"

JCE IEEE, Women in Engineering (WiE) student branch with IEEE North Karnataka sub-section, ECHO with the Departmental Staff Branch of Electronics and Communication Engineering Department organized a workshop on "Professional Documentation using LyX" for their students of 8th semester on 27/04/2022. On this day Dr. Shankaru Gugri, Associate Professor, Dept. of CSE, JCE, Belagavi was invited as a guest speaker for the event. The objective of workshop is to make final year students to understand the report writing in LyX along with hands on session for project report and seminar report writing. The workshop was appreciated and well received by the students who have attended. The workshop was headed by HOD Dr. Krupa Rasane and conducted by staff Prof. Salma S. Shahapur.

3. A technical talk on "National Technology Day"

JCE IEEE, Women in Engineering (WiE) student branch with IEEE North Karnataka sub section, IIC with the Departmental Staff and student Branch of Electronics and Communication Engineering Department organized a technical talk on "National Technology Day" for their students of 6th sem and 8th semesters on 11th May 2022. On this day Mrs. Chetana Sarang was invited as a guest speaker for the event. She has highlighted the importance of technology and the fastest growing technologies like Machine learning, Artificial Intelligence and Deep Learning. The talk was appreciated and well received by the students as well as the staff who have attended. The event was headed by Dr. Krupa Rasane and organized by Prof. M. Saritha an IEEE staff co-ordinator.

4. ARCANE-2022 Fresher's Welcome

The Department of Electronics and Communication Engineering at Jain College of Engineering conducted Fresher's welcome function "ARCANE-2022" and Inaugurated the activities of the student association "ECHO" on 4th June 2022. All the faculties along with final year students welcomed second & third year students to the department.

The welcome function began with lighting of lamp. And the Principal & Director Dr. J Shivakumar presided over the function with the presidential remarks, highlighted on the importance of Electronics & Communication in present life & learning modern technologies with software skills which can make students practically perfect.

The Head of E&C department, Dr. Krupa Rasane welcomed the august gathering and addressed the students regarding the opportunities and challenges in the journey of life she also enlighten on the what are the preparations which are needed in the corporate world.

The ECHO Secretary Prof. Shahak Patil, presented the annual report of the upcoming activities of the academic year 2021-2022.

The function was hosted by the ECHO student Coordinator Mr. Nitish Bhat.

5. School Adaption

JCE IEEE, Women in Engineering (WiE) student branch with the Departmental Staff and students of Electronics and Communication Engineering Department visited to a rural government school that is KSRP Government school Machhe on 10th June 2022. IEEE SB adopted this school to enrich the lives of the students studying their and helping them to overcome their basic needs in expressing and exploring their creative side in bringing their imagination into reality. 40 students of IEEE conducted some technical and non technical events for students along with career guidance through cancelling. The entire visit was guided by HOD Dr. Krupa Rasane and IEEE staff co-coordinators Prof. M. Saritha and Prof. Ashwini. A. Overall it was a successful event.

6. A workshop on "Machine Learning & Deep Learning"

JCE IEEE, Women in Engineering (WiE) student branch with IEEE North Karnataka sub-section, ECHO,IQAC with the Departmental Staff Branch of Electronics and Communication Engineering Department organized a workshop on "Machine Learning & Deep learning" for their students of 6th sem 17TH to 18TH June 2022. On this day Mr. Prashant Dhope was invited as a guest speaker for the event. He has highlighted the importance of the fastest growing technologies like Machine learning, Artificial Intelligence and Deep Learning, their algorithms, libraries and also implementation of the libraries using Raspberry Pi kit. The workshop was appreciated and well received by the students who have attended. The workshop was headed by HOD Dr. Krupa Rasane and conducted by IEEE staff coordinators Prof. M. Saritha and Prof. Ashwini Araballi.

Student Achievements

1. Academic Toppers

7TH SEM TOPPERS

1. NIDHI K NILAJ
2. SNEHA I NAVALGATTI
3. POOJA BASTAWADI

5TH SEM TOPPERS

1. BHOOMIKA B KADABI
2. MRUNAL RAJESH CHOUGULE
3. SPOORTI VADAGAVE

2. Projects Sponsored Under Karnataka State Council for Science and Technology (KSCST)

PROJECT REFERENCE NUMBER	PROJECT TITLE	NAME OF THE GUIDE	NAME OF THE STUDENTS	SPONSORED AMOUNT
45S_BE_0003	AFFORDABLE AND PORTABLE OXYGEN CONCENTRATOR	PROF. VINAYKUMAR R BAGALI	MR. FAIZAN ATTAR MR. JUNAIDAHMED BEPARI MR. AZHARUDDIN KALADAGI MR. ARBAZMEHDI KARIKAZI	8,000.00
45S_BE_0006	SMART CROP DRYING UNIT FOR POST-HARVEST ACTIVITIES	PROF. SHIVANAND B HUGAR	MR. SANKET VIJAYKUMAR CHOUGALA MR. SANJAY GHORPADE MR. SHIVAMALLU GHATNATTI MR. SHRISHAIL M KAROLI	8,000.00

3. Projects Nominated under Visvesvaraya Technological University (VTU)

PROJECT TITLE	NAME OF THE GUIDE	NAME OF THE STUDENTS
DEFENCE SURVEILLANCE	PROF. SALMA S. SHAHAPUR	SWAROOP TUBAKI SACHIN HIREMATH ARPITA A KANAGANNI ANULAXMI S KHANAGANNI
ELECTRONIC SHOE TO ASSIST VISUALLY CHALLENGED PEOPLE	PROF. SALMA S. SHAHAPUR	VIKAS M BANDI GOPAL LAMANI KIRAN PATIL MAHANTH GOWDA S PATIL

4. Project Expo

1st runner up at National Level Project Expo in Don Boscho Institution of Technology Bangalore

1. Venkatesh betgeri
2. Anmol badguli
3. Anil patil
4. Ganesh Gondkar

5. Hackathon

JCE students for secured first place with 30000/- cash prize at Karnataka s biggest Hackathon(36 Hours long) held at Deshpande startups hubli.

Team Name : Team Quad Squad.

1. Omkar V Belgaonkar(CSE)
2. Shravankumar Janawade (E&C)
3. Suraj S Kotagi (E&C)
4. Chandrashekhar Yaragambalimath (E&C)

Placements

Placement Details (Academic Years)	Total strength	Candidates Eligible for Placements	Total Placements	
			With multiplaced	Without multiplaced
2021-22 (still counting...)	152	131	117	82(62.6%)

Faculty Achievements

Research Papers Published by Faculty

1.**Shahapur, Salma S.**, Rajashri Khanai, and Dattaprasad A. Torse. "Performance analysis of error control codes for underwater wireless acoustic communication." Trends in Sciences 19.3 (2022): 2164-2164.
link: https://tis.wu.ac.th/index.php/tis/article/view/2164

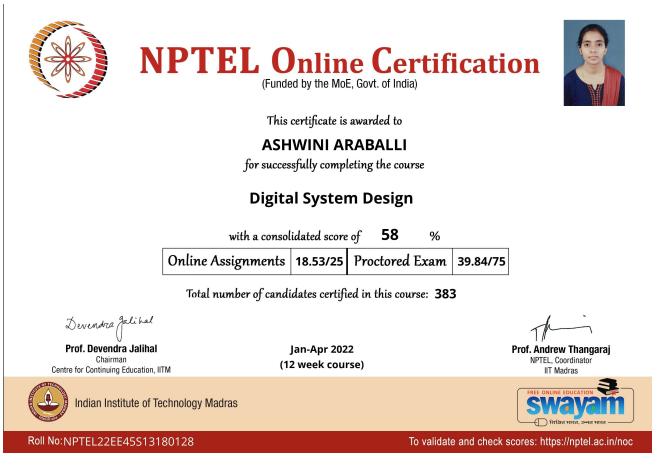
2.**Shahapur, Salma S.**, Rajashri Khanai, and D. A. Torse. "Simulation of OFDM MIMO with IDMA for Underwater Acoustic Communication." ICCCE 2021. Springer, Singapore, 2022. 79-92.
link: https://link.springer.com/chapter/10.1007/978-981-16-7985-8_9

3.**M. Saritha & Krupa Rasane**, "Image Despeckling Using Hybrid Method", ICCCE 2021, Springer, Singapore, 2022. 93 -101.
link: https://link.springer.com/chapter/10.1007/978-981-16-7985-8_10

4.Gujanatti Rudrappa, Arun Tigadi, Sadanand B Kulkarni, Sushant Jadhav, **Basavaraj Chougula** "CANoe Tool usage for Communication Between Automotive Grade Processors" 2022 3rd International Conference for Emerging Technology (INCET).
link: https://ieeexplore.ieee.org/document/9824832

5.Sushant Jadhav, **Basavaraj Chougula**, Gujanatti Rudrappa, Nataraj Vijapur, Arun Tigadi. "GoogLeNet Application towards Gesture Recognition for ASL Character Identification" 2022 IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE).
link: https://ieeexplore.ieee.org/document/9793165

Certifications


NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
ASHWINI ARABALLI
for successfully completing the course
Digital System Design

with a consolidated score of 58 %

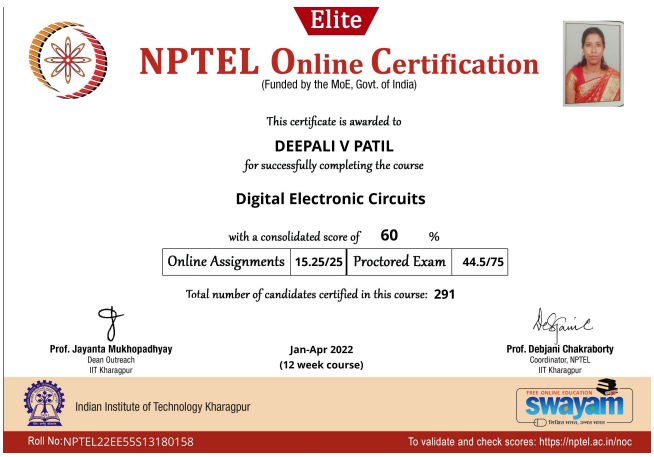
Online Assignments	18.53/25	Proctored Exam	39.84/75

Total number of candidates certified in this course: 383

Prof. Devendra Jalihal, Chairman, Centre for Continuing Education, IITM
Jan-Apr 2022 (12 week course)
Prof. Andrew Thangaraj, NPTEL Coordinator, IIT Madras

Indian Institute of Technology Madras
swayam
Roll No:NPTEL22EE45S13180128
To validate and check scores: https://nptel.ac.in/noc

Prof. Ashwini Araballi
NPTEL Online Certification
Subject: Digital System Design


Elite
NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
DEEPALI V PATIL
for successfully completing the course
Digital Electronic Circuits

with a consolidated score of 60 %

Online Assignments	15.25/25	Proctored Exam	44.5/75

Total number of candidates certified in this course: 291

Prof. Jayanta Mukhopadhyay, Dean Outreach, IIT Kharagpur
Jan-Apr 2022 (12 week course)
Prof. Debjani Chakraborty, Coordinator, NPTEL, IIT Kharagpur

Indian Institute of Technology Kharagpur
swayam
Roll No:NPTEL22EE55S13180158
To validate and check scores: https://nptel.ac.in/noc

Prof. Deepali V Patil
NPTEL Online Cerfication
Subject: Digital Electronic Circuits

SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN, JAIPUR

Certificate of Participation

Ref. No./SKIT/EE/MSEA/2021-22/131

*This is to certify that "**Mr. Shahak Patil**" of "**Jain College of Engineering**" has participated in the one-week Short-Term Training Programme on "**Modelling and Simulation in Engineering Applications (MSEA-2022)**" held from March 22-26, 2022 at "**Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur**".*

Prof (Dr.) R. K. Pachar, Principal, SKIT, Jaipur
Dr. Dhanraj Chitara, HOD, Dept. of EE, SKIT, Jaipur
Dr. Virendra Sangtani, Associate Professor, EE Dept., SKIT
Mrs. Deepti Arela, Assistant Professor, EE Dept., SKIT
Mrs. Kavita Jain, Assistant Professor, EE Dept., SKIT
Dr. Jyotsna Singh, Assistant Professor, EE Dept., SKIT

Prof. Shahak Patil
One Week Short Term Training Programme on "Modelling and Simulation in Engineering Applications"

CoreEL Technologies

KLE TECHNOLOGICAL UNIVERSITY
Creating Value, Leveraging Knowledge
Dr. M. S. S. C. E. T., BELAGAVI CAMPUS
Accredited by National Board of Accreditation (NBA), New Delhi

Certificate

This is to certify that

Mr/Ms. V. R. Bagali

of Jain College of Engineering, Belagavi

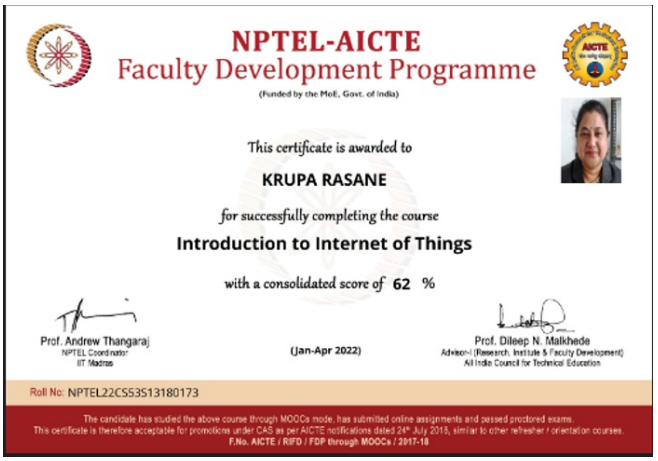
participated in a three-day FDP on "System Design Flow on Zynq Using Vivado"

conducted by Department of Electronics and Communication Engineering

from 2nd – 4th June 2022 in collaboration with Coreel Technologies, Benguluru.

Dr. Rajashri Khanai, Prof. Swati Mavinkattimath, Coordinators
Mr. Prakash G., Resource Person
Dr. D. A. Torse, Head of the Department
Dr. Basavaraj Katageri, Principal

Prof. V. R. Bagali
Three Day FDP on "System Design Flow on Zynq using Vivado"



NPTEL-AICTE
Faculty Development Programme
(Funded by the MoE, Govt. of India)

This certificate is awarded to

KRUPA RASANE

for successfully completing the course

Introduction to Internet of Things

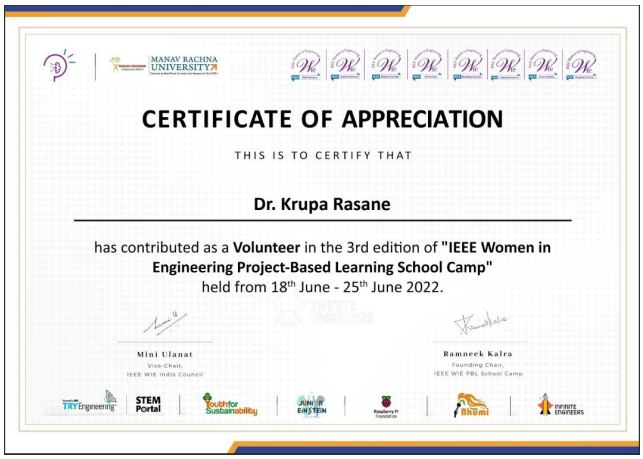
with a consolidated score of 62 %

Prof. Andrew Thangaraj, NPTEL Coordinator, IIT Madras
(Jan-Apr 2022)
Prof. Dileep N. Malkhede, Advisor-I (Research, Institute & Faculty Development), All India Council for Technical Education

Roll No: NPTEL22CS53S13180173

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 24th July 2015, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

Dr. Krupa Rasane
NPTEL-AICTE FDP
Subject: Introduction to Internet of Things



MANAV RACHNA UNIVERSITY

CERTIFICATE OF APPRECIATION

THIS IS TO CERTIFY THAT

Dr. Krupa Rasane

has contributed as a **Volunteer** in the 3rd edition of **"IEEE Women in Engineering Project-Based Learning School Camp"**
held from 18th June - 25th June 2022.

Mini Ulanat, Vice-Chair, IEEE WIE India Council
Ramneek Kalra, Founding Chair, IEEE WIE PBL School Camp

Dr. Krupa Rasane
Volunteer in 3rd edition of "IEEE Women in Engineering Project-Based Learning School Camp"

IEEE Women in Engineering
2022 Certificate of Membership

This certificate recognizes

Krupa Rasane

as a Senior Member in good standing, denoting
a personal and professional commitment to the advancement of technology

CONNECT. SUPPORT. INSPIRE
WIE.IEEE.ORG

Jenifer Castillo Rodriguez, 2022 IEEE WIE Chair

IEEE Advancing Technology for Humanity

Dr. Krupa Rasane
Senior Member
IEEE Women in Engineering

2022 Certificate of IEEE Membership

This certificate recognizes

Krupa Rasane

as a Senior Member in good standing through December 2022, denoting
a personal and professional commitment to the advancement of technology

...in the company of innovators worldwide

Jacob Ziv
2021 Medal of Honor Recipient
Technion Research Professor Emeritus, Technion, Israel Institute of Technology, Haifa, Israel
"For fundamental contributions to information theory and data compression technology, and for distinguished research leadership."

K. J. RAY LIU
2022 IEEE PRESIDENT

IEEE Advancing Technology for Humanity

Dr. Krupa Rasane
Senior Member
IEEE

3rd Internationl Conference of Emerging Technologies (INCET) 2022

About INCET 2022

3rd INCET 2022 is organized by JAIN COLLEGE OF ENGINEERING & TECHNOLOGY, Belgaum Karnataka, INDIA. This conference is Technically Sponsored by IEEE Bangalore Section.

INCET-2022 SPEAKERS

Mr. Puneet Mishra.

Heading Satellite Antenna Characterization, Test & Design Section , ISRO , Bengaluru.

Dr. Parikshit Narendra Mahalle.

Dr. Parikshit Narendra Mahalle is Post Doc Researcher at CMI, Aalborg University, Copenhagen, Denmark.

Dr. Hussain Mahdi.

Hussain Mahdi is a lecturer at Computer and Software, College of Engineering, University of Diyala, Iraq.

Dr. Chanakya Kumar Jha.

Dr. Chanakya Kumar Jha is Director (Planning) Siddhant Group of Institutions , Secretary of Federation of World Academician 2021 – 2022 , Member of Section Chapter committee at IEEE Region 10.