November-2021

GOKHALE EDUCATION SOCIETY'S

R H SAPAT COLLEGE OF ENGINEERING, MANAGEMENT STUDIES AND RESEARCH, NASHIK-05

e-Newsletter

"The Quest for Excellence"

Department of Electrical Engineering

EDITORIAL COMMITTEE

Prof. M. K. Chaudhari

Prof. Dr. D. M. Sonje

Mrs. R. S. Tidke

November-2021

GOKHALE EDUCATION SOCIETY'S

R H SAPAT COLLEGE OF ENGINEERING, MANAGEMENT STUDIES AND RESEARCH, NASHIK-05

Department of Electrical Engineering

"The Quest for Excellence"

e-Newsletter

VISION

To Serve as a Lead Centre for Value-based Learning & Innovation in Electrical Engineering.

MISSION

- To create competent technocrats for industries through effective teaching-learning process and industry interaction.
- To create value embedded professionals ready to serve the society.
- To facilitate students & faculties for higher learning to empower them for Research & Development

Objective of "The Quest for Excellence":

To provide state-of-the-art in electrical engineering department with latest happening, internship, Industry-institute interactions, project opportunities, research and development, placements, curricular and extra-curricular activities of all stake holders.

Hon. Secretary's Message:

Sir Dr. M.S. Gosavi
Founder Director
(MBA) 1968
Secretary,
Gokhale Education Society

Aspects of Education are Knowledge, Know-how and Character. Updated scientific knowledge provides an excellent foundation and confidence in personality; Know-how is the ability to translate knowledge into action and empirical knowledge provides insight and vision for innovation and creativity. We believe that the Technical Education with Values and Ethics is the greatest need of time. The question that grapples all nations today in the world is how to make education at all levels more effective, impact-making and active. Education can be made more effective & impact making through Faculty Training, Evaluation Reform, Industry Linkages along with Curriculum Development. Gokhale Education Society thought of creating a landmark for technical education. We are sure that the College will soon emerge at the National level as a lead & quality technical Institution with blessings from all concerned. We are also sure it will provide great inspiration and strength to all concerned as a Model to be emulated all over the world.

Hon. Director's Message:

Prof. P. M. Deshpande
Director (Project)
Gokhale Education Society's
R.H. Sapat college of Engineering,
Management Studies and Research
Nasik-05

Our college is committed to impart quality technical education with ingrained ethical values. We are committed to instil inquisitiveness amongst all students who can acquire the necessary technical knowledge and skills. By encouraging learning through enquiry, logic and developing a fearless attitude towards the fulfilment of curiosity, true know how& skill-sets can be acquired. Our endeavour to catalyst changes in imparting technical knowledge so as to differentiate our students from the rest is firmly embedded in our belief that 21st Century Engineer from this college would be a Lifelong learner, Critical Thinker and Leader of change. We believe that a four-year Engineering Degree Course bestows. "A License to Think, Think Logically & Critically". Come, let us work towards achieving our aim of becoming;

"Value Embedded Quality, Global Engineer"

From the Principal Desk:

Dr. Prafulla C. Kulkarni
M. Tech.(Production),
Ph.D. (I.I.T. Kanpur)

Gokhale Education Society's
R.H. Sapat College of Engineering,
Management Studies and Research
Nasik-05

It gives me immense pleasure to present before you a brief of our vision and efforts. Our institute is one of the leading institutes which have taken a leap forward in the quality technical education. The vision of the institute is, "To produce world-class engineers for converting global challenges into opportunities through value embedded quality technical education." To achieve this, we have developed this institute as a Centre of Academic excellence of higher learning in the fields of engineering and technology. Here at GES's R. H. Sapat College of Engineering Management Studies and Research, we are committed to impart necessary skills and knowledge to our students in best possible manner, in good spirit and in the good environment by allowing them to dream big and help them to achieve the same. Industry demands technocrat-leaders to serve various sectors. Placement of young energetic budding engineers is of prime importance to all of us. A systematic development in soft skills and overall confidence building through weekly programs is unique to our institute. Ultimately, our student will be a holistic person.

From HoD's Desk:

Prof. M. K. Chaudhari

M.E. (Control Systems)
Pursuing Ph.D. (SVNIT Surat)

The Department of Electrical Engineering (EED) is committed to the student-centric Teaching-Learning process. The EED is focusing on student placements, student-mentoring, FE-SE course results, and working for quality improvements in Project-Based Learning (PBL). We are working with an action plan to enhance skills through seminars and presentations (SE), workshops/webinars, expert lectures, mock interviews, group discussions, aptitude tests, hands-on practices, learning higher-end software. Besides technical skills, we are also focusing on various social activities to inculcate values among our students. These measures will enhance student's ability to design, develop & take up research with eco-friendly innovative solutions to Electrical Engineering Problems. The EED is working hard to produce competent technocrats for industries through effective teaching-learning processes, and industry interaction to instil hardware, software, and operational skills required for the industries.

Department Activity:

I. Career Guidance Cell Activity

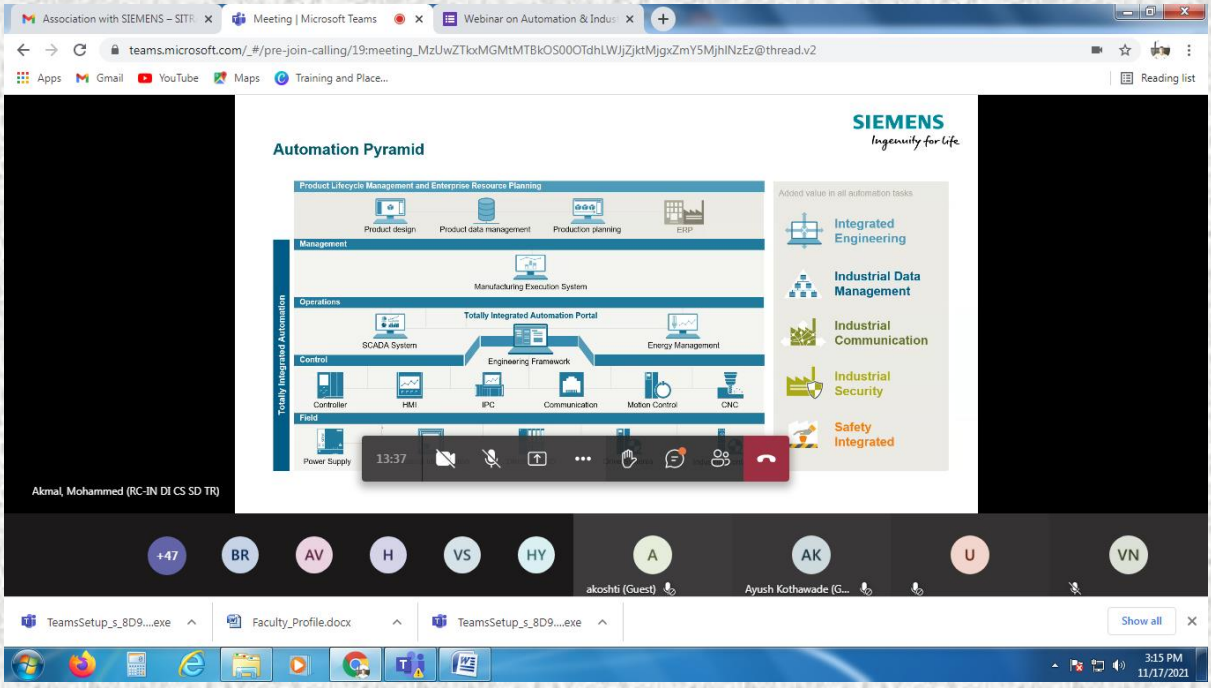
Opportunities in Electrical Designing

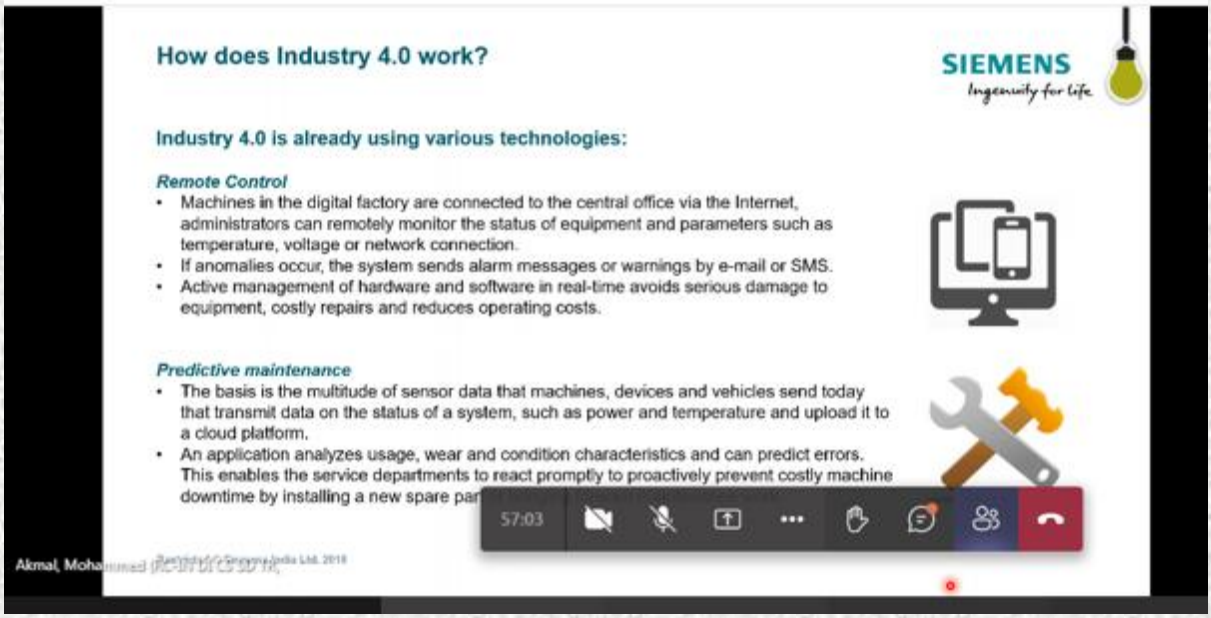
Online session on "Career opportunities in Electrical Designing" has been arranged for TE and BE students on 13/10/2021 by Prof. V S Meshram, Career Guidance Cell Coordinator. The objectives of this Session are, to aware the students about the different career opportunities in Electrical designing, to help the students about handling the latest designing software like Autodesk Revit and how to build the model in this software, to provide an opportunity to students to interact with professionals so to get valuable knowledge and experience.

Mr Sahil Pathan is a Senior BIM Modeler. A BIM modeler uses Building information modeling software to create three-dimensional visual plan for the project. Mr Sahil Pathan is working in this field from last so many years. In this session Mr Sahil Pathan guided the students on the topic of Electrical designing. The speaker stressed upon the clear directions that the students must have strong knowledge about their electrical domain. He also informed the students about the various career opportunities in Electrical designing. The speaker shown the student how to handle the Revit software as well as build one model on the software for the better understanding of the students After delivering the lecture he encouraged students to clear their doubts and clarified many doubts about the Revit software. it was a very informative and interactive session where students came to know about the Electrical designing software

II. Training and Placement Cell Activity: Automation & industry 4.0

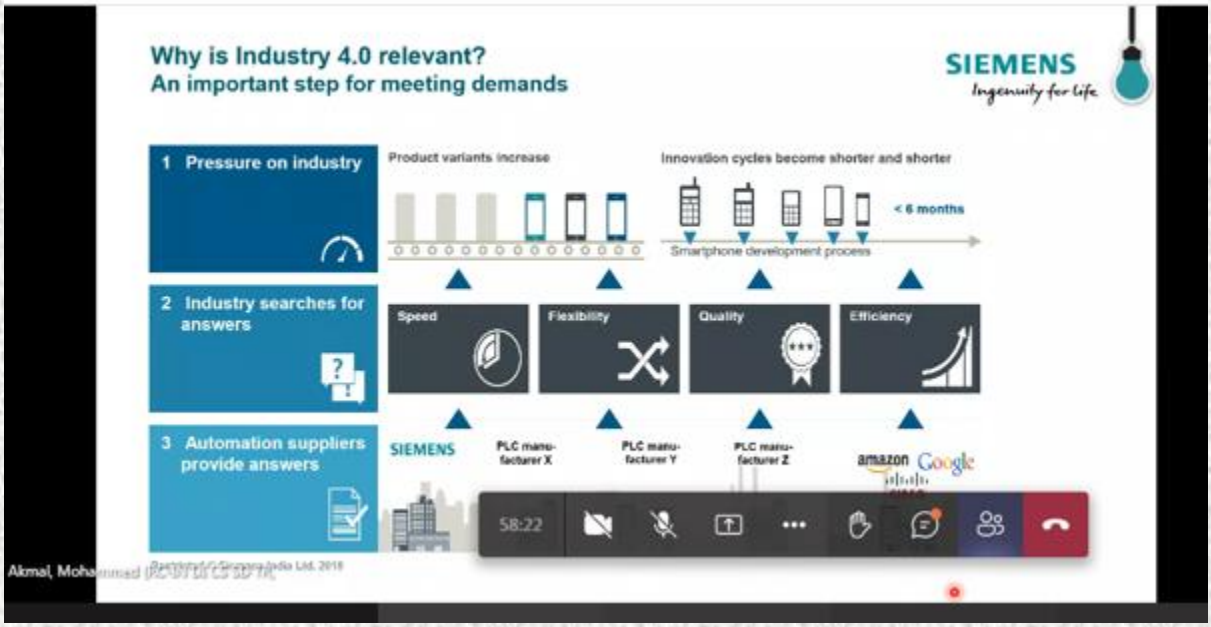
An online session through microsoft team on "Automation & industry 4.0." is arranged on 17th November 2021 for final year and third year students by Prof. S. V. Chakor (T&P Coordinator). The objectives of this Session are, to promote and encourage interaction between expert speaker and the students, to promote knowledge and experience sharing between alumni and students through guest lectures. Also, to enhance job and training opportunities for alumni and students and an expert provide an important educational experience for students based on their real-world life experiences.





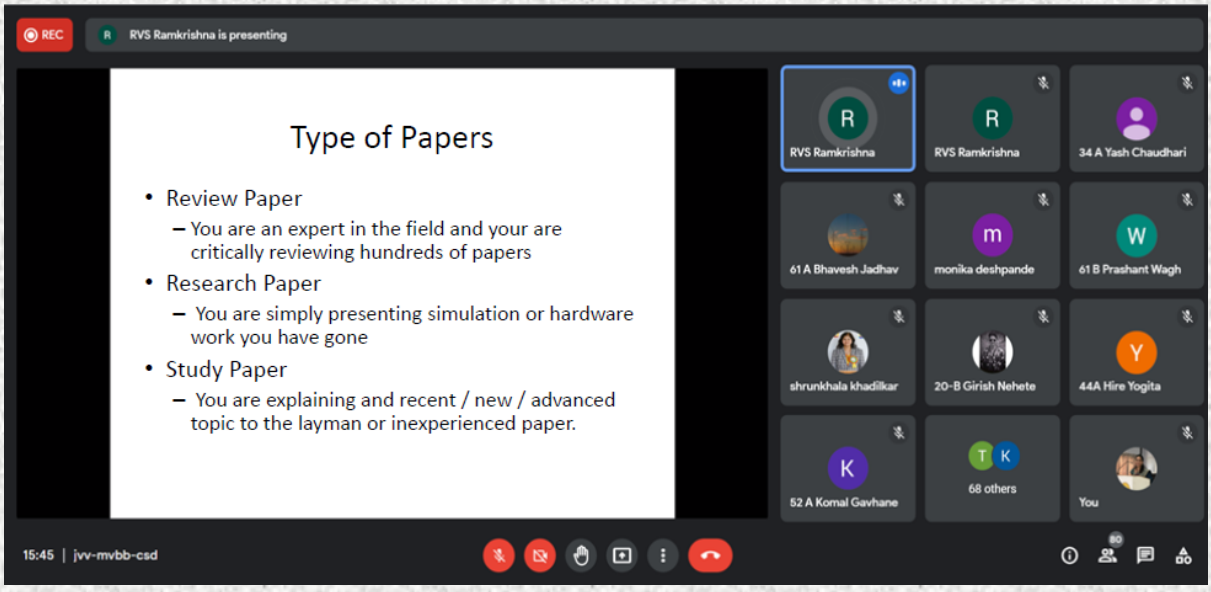
The resource for the activity was Mr. Mohammad Akmal (Industry Expert) IEMENS – SITRAIN Digital Industry Academy Thane. Mr. Akmal had speak on the various aspects of Automation in industry as many companies work with PLC & SCADA automation.

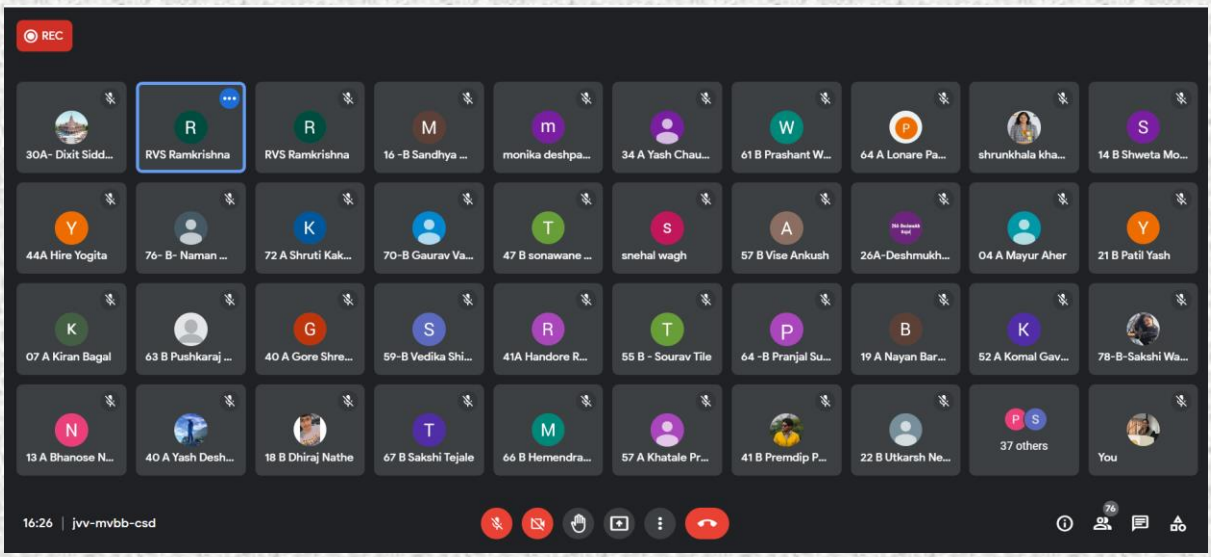
He shares brief information regarding basics of PLC, Software used and talks about communication requirements. Also, the future of automation-powered work environments and how automation is dignified to spark major societal change explained. Moreover, he shares brief information on industry 4.0 & new technological paradigms, sectoral patterns of technology adoption and development paths and the role of automated work in overcoming challenges like COVID-19. Benefits of industry 4.0 on the following points problems of economic development in the perspective of the classical theory of surplus.



III. EPSA Activity:
How to Write a Technical Paper

Online session via Google meet on 30th Nov is conducted by Dr. RVS Ramkrishna on the topic "How to write a Technical Paper", for final year and third year students. He has discussed from basics what are types of paper examples review paper, research paper and study papers. He basically focuses on research paper, how to write abstract, grammar used in abstract as well as in full paper. He has elaborated the technical paper writing with example of paper title "A new method of speed control of Induction motor". All the students benefitted from this online session. Students now confident enough to write one conference paper on their seminar work, project work. The activity coordinated along with Dr. RVS Ramkrishna by M. V. Reddy, Mrs. S. G. Khadilkar, Mrs. R. S. Tidke, Mrs M. P. Deshpande and Dr. D. M. Sonje.


REC
RVS Ramkrishna is presenting
Type of Papers
• Review Paper
– You are an expert in the field and your are critically reviewing hundreds of papers
• Research Paper
– You are simply presenting simulation or hardware work you have gone
• Study Paper
– You are explaining and recent / new / advanced topic to the layman or inexperienced paper.
RVS Ramkrishna
RVS Ramkrishna
34 A Yash Chaudhari
61 A Bhavesh Jadhav
monika deshpande
61 B Prashant Wagh
shrunkhala khadilkar
20-B Girish Nehete
44A Hire Yogita
52 A Komal Gavhane
68 others
You
15:45 | jvv-mvbb-csd


REC
30A- Dixit Sidd...
RVS Ramkrishna
RVS Ramkrishna
16 -B Sandhya ...
monika deshpa...
34 A Yash Chau...
61 B Prashant W...
64 A Lonare Pa...
shrunkhala kha...
14 B Shweta Mo...
44A Hire Yogita
76- B- Naman ...
72 A Shruti Kak...
70-B Gaurav Va...
47 B sonawane ...
snehal wagh
57 B Vise Ankush
26A-Deshmukh...
04 A Mayur Aher
21 B Patil Yash
07 A Kiran Bagal
63 B Pushkaraj ...
40 A Gore Shre...
59-B Vedika Shi...
41A Handore R...
55 B - Sourav Tile
64 -B Pranjal Su...
19 A Nayan Bar...
52 A Komal Gav...
78-B-Sakshi Wa...
13 A Bhanose N...
40 A Yash Desh...
18 B Dhiraj Nathe
67 B Sakshi Tejale
66 B Hemendra...
57 A Khatale Pr...
41 B Premdip P...
22 B Utkarsh Ne...
37 others
You
16:26 | jvv-mvbb-csd

Students Corner:

A. Students Placement:

Students placed in various multinational company (Data by Mr. S.V. Chakor).

Gokhale Education Society's
R. H. Sapat College of Engineering, Management Studies & Research. Nasik - 422 005
(NAAC B++, ISO 9001-15000 Certified)
DEPARTMENT OF ELECTRICAL ENGINEERING

Campus Placement "Capgemini Pvt. Ltd"

Hearty Congratulation

Ms. Darshana Pawar

Mr. Dhananjay Joshi

Mr. S. V. Chakor, T&P Coordinator | Prof. M. K. Chaudhari, HOD | Dr. P. C. Kulkarni, Principal | Prof. P. M. Deshpande, Director(P)

Gokhale Education Society's
R. H. Sapat College of Engineering, Management Studies & Research. Nasik - 422 005
(NAAC B++, ISO 9001-15000 Certified)
DEPARTMENT OF ELECTRICAL ENGINEERING

Campus Placement "Neilsoft Pvt. Ltd"

Hearty Congratulation

Ms. Harshala Wani

Mr. Nikhil Sarode

Ms. Ashwini Kumawat

Mr. S. V. Chakor, T&P Coordinator | Prof. M. K. Chaudhari, HOD | Dr. P. C. Kulkarni, Principal | Prof. P. M. Deshpande, Director(P)

The efforts taken by Training and placement cell of department our latest students **(AY:21-22)** have placed in MNC during first semester of Final year.

B. Students Publications:

1) Mamata Patil, Atul Koshti presented paper tilted, "Symmetrical Pulse Width Modulation Technique for Harmonic Elimination in PWM AC Voltage Regulator Using Random Search Method", International Conference on Sustainable Technology and Advanced Computing in Electrical Engineering (ICSTACE) (Virtual), 11th & 12th November 2021.

C. Students Achievements / Social Contributions:

1. Ankit Jadhav has successfully completed the course on Introduction to Japanese language -NPTEL online certification course from Jun 21-Oct 21 (12 weeks). Also, he has successfully completed IoT (Internet of Things) Wireless & Cloud Computing Emerging Technologies an online non-credit course authorized by Yonsei University and offered through Coursera in Oct 2021.
2. Sakshi Nilesh Bodke has successfully completed Online Master class of IOT at Pantech e-Learning Pvt. Ltd. Chennai, from Sep 21 to Oct 21.
3. Akshay Phalphale has Successfully completed "MATLAB Simulink for Power electronics simulations", on 21th Nov 2021at Udemy.

Faculty Corner:

a. Faculty Publications:

1. **M. Chaudhari**, A. Chowdhury, G. Dhole, "Effect of flux barrier shape on performance of single-phase line start synchronous reluctance motor modified from single phase induction motor", Electrica. 2021. DOI: 10.5152/electrica.2021.20104.
2. **V R Naphade**, Dr. V N Ghate, Dr. G M Dhole, "Saturated Core Fault Current Limiter: A Technology to Handle Short-Circuits in the Modern Power Networks", Industrial Engineering Journal, Vol. XIV & Issue No.04, 2021, pp. 05-11, ISSN - 0970-2555. (UGC-Care Listed Journal)
3. **Rekha Tidke**, Anandita Chowdhury presented paper tilted, "Sliding Mode based Indirect Field Oriented Controlled IM with PI-Fuzzy logic Speed Controller for EV Applications.", International Conference on Sustainable Technology and Advanced Computing in Electrical Engineering (ICSTACE) (Virtual), 11th & 12th November 2021.

b. Workshop/Webinars/Courses attended/completed by the faculties:

Name of faculty	Event Title	Event type	Date	Organised by
Mrs. R S Tidke	ATAL FDP	Emerging Trends and Developments in Electric Vehicles	25-29th Oct	EED, NIT Manipur
Mrs. R S Tidke	ATAL FDP	Electric Vehicle Technology: Challenges And Business Opportunity	08-12th Nov	National Small Industries Corp. Ltd, A Government of India Enterprise, Hyderabad.
H.B. Wagh	ATAL FDP	Renewable and Clean Energy for Industries	25-29th Oct	RV college of Engineering
Dr. D. M. Sonje	ATAL FDP	Control Systems & Sensors Technology	18-22th Oct	NIT
S.P. Koparkar	ATAL FDP	Internet Of Things (IoT) using Arduino & Raspberry PI	25-29th Oct	Sakthi Polytechnic College, Coimbatore (TN)
Dr. RVS Ramkrishna	ATAL FDP	Internet Of Things (IoT) using Arduino & Raspberry PI	25-29th Oct	Sakthi Polytechnic College, Coimbatore (TN)
S. V. Chakor	Text book Webinar	Roadmap to Build the Successful Strategies with Corporates	23th Oct	Skill Campus Mumbai

S. V. Chakor	One-Week Workshop	Multi-physics Analysis of Electrical Machine Using ANSYS Software and PLECS Simulation Tool for Power Electronics Applications	25-29th Oct	NIT Srinagar
S.K. Mahajan	One-Week Workshop	Recent advanced in solar energy research application	25-29th Oct	KBTCOE Nashik
H. B. Wagh	One-Week Workshop	Recent advanced in solar energy research application	25-29th Oct	KBTCOE Nashik
S. V. Chakor	One-Week Workshop	Recent advanced in solar energy research application	25-29th Oct	KBTCOE Nashik
Dr. D. M. Sonje	One-Week Workshop	Multi-physics analysis of electrical machine using ANSYS software and PLECS simulation tool for power electronics applications	25-29th Oct	NIT Srinagar
Mr. H. B. Wagh	One-Week FDP	Role of Honours courses in Engineering education and research	25-29th Oct	SIT Lonawala
Mrs. M. P. Deshpande	One-week workshop	Multi-physics Analysis of Electrical Machine Using ANSYS Software and PLECS Simulation Tool for Power Electronics Applications	25-29th Oct	NIT Srinagar
Mrs. M. P. Deshpande	ATAL FDP	Advances in Power Electronics Converters for Distributed Generation and Industrial Applications	15-19th Nov	Uday Prasad Uday Government Polytechnic
Dr. RVS Ramkrishna	ATAL FDP	Recent Trends in Optoelectronics & Optical Communications	15-19th Nov	G B Pant Engg College, Pauri (UK)
Mrs. R. S. Tidke	International One-week FDP	Technological Development & Changing Dimensions of Life	22-26th Nov	JDC Bytco IMSR, Nashik

Career Opportunities in Electric Vehicles:

India is expected to switch about 25% of the transportation (cars, motorcycles, other two-wheelers, three-wheelers, buses, trucks) to electric vehicles by 2030. At present, India has over 23 crore vehicles. It is expected that by 2030, we will have over ten crore electric vehicles replace Internal Combustion Engine ones. Simultaneously, the incredible growth of electric vehicles increases the employment rate and job opportunities for youth. Though the lithium is scarce in India yet tonnes of lithium extracted from Laptops & Mobiles in use & recycle it in eco-friendly system as input raw material to Culture of Electric Vehicles.

According to the Ministry of Skill Development and Entrepreneurship, the EV industry is expected to create about 5 crore direct and indirect job opportunities. According to recent employment statistical reports, there's a more significant employment rate in the Renewable Energy (RE) sector. The Indian Labour Organization report stated that the Renewable Energy industry's job opportunities would rise to 38 lacs by The EV industry will create over 10 million job opportunities in various domains such as designing, testing, manufacturing, wiring, charging infrastructure, sales, services, redesigning existing infrastructure, battery technology, and many more. Moreover, the new job opportunities don't replace the traditional skilled employees. Instead, the industry facilitates the traditional or ICE qualified employees with other related services. The skilled technicians are highly recruited for retrofitting. The EV industry increases the opportunities for qualified youth. Therefore, youth unemployment decreases rapidly and helps in the nation's economic growth.

The EV industry is estimated to offer several job opportunities for skilled population. The significant profiles in the EV industry that require skilful employees are research, designing and development, manufacturing, vehicle maintenance, and infrastructure development. Academicians, Scientists, Industrialists with Govt schemes in Chemical, Material sciences, Electrical, Electronics & IT Engineering fields can take advantage of this job opportunity in the Electric vehicle industry. Chemists are well-versed in the chemical properties, reactions, substances to use in battery charging, and many more related fuel and chemical substances. They perform various tests to find alternative eco-friendly chemical usage in the batteries as a fuel with this knowledge. The primary focus of the chemists is to work on the batteries along with the other Engineers. Similarly, the Material Engineers work on the materials of the electric vehicle. They study and examine materials' various properties and try to implement the new material products using the existing ones. They try to make robust materials that are lighter and eco-friendly. Material scientists or Engineers aim to provide the best materials for seats, seat

belts, upholstery, and other parts of electric vehicles of battery Electrical Electronics & IT Engineers can enter in to joint venture for resolving challenges of EV such as range anxiety fast charging of batteries Smart control of EV from remote devices etc. Lithium being scarce in India. There is wide scope to recycle tonnes of Lithium from the used batteries of Mobiles Laptops & all consumer Electronics Gazettes. Govt has been all set to accelerate the start-ups for youths to venture in to EV infra comprising Charging Stations Battery swapping stations etc.

(Article by Prof. N. S. Pande)

Department in News:

The department of Electrical Engineering, Gokhale Education Society's R H Sapat College of Engineering, Management Studies and Research, Nashik is organizing the First National Conference on Energy and Mobility (NCEAM-21) on 23-24 December, 2021 in Virtual Mode. The conference will provide an excellent forum for dissemination of research results and new ideas of students, academicians and industry professionals.

Paper submission link: https://easychair.org/conferences/?conf=nceam21

Topics of interest for submission include, but are not limited to:

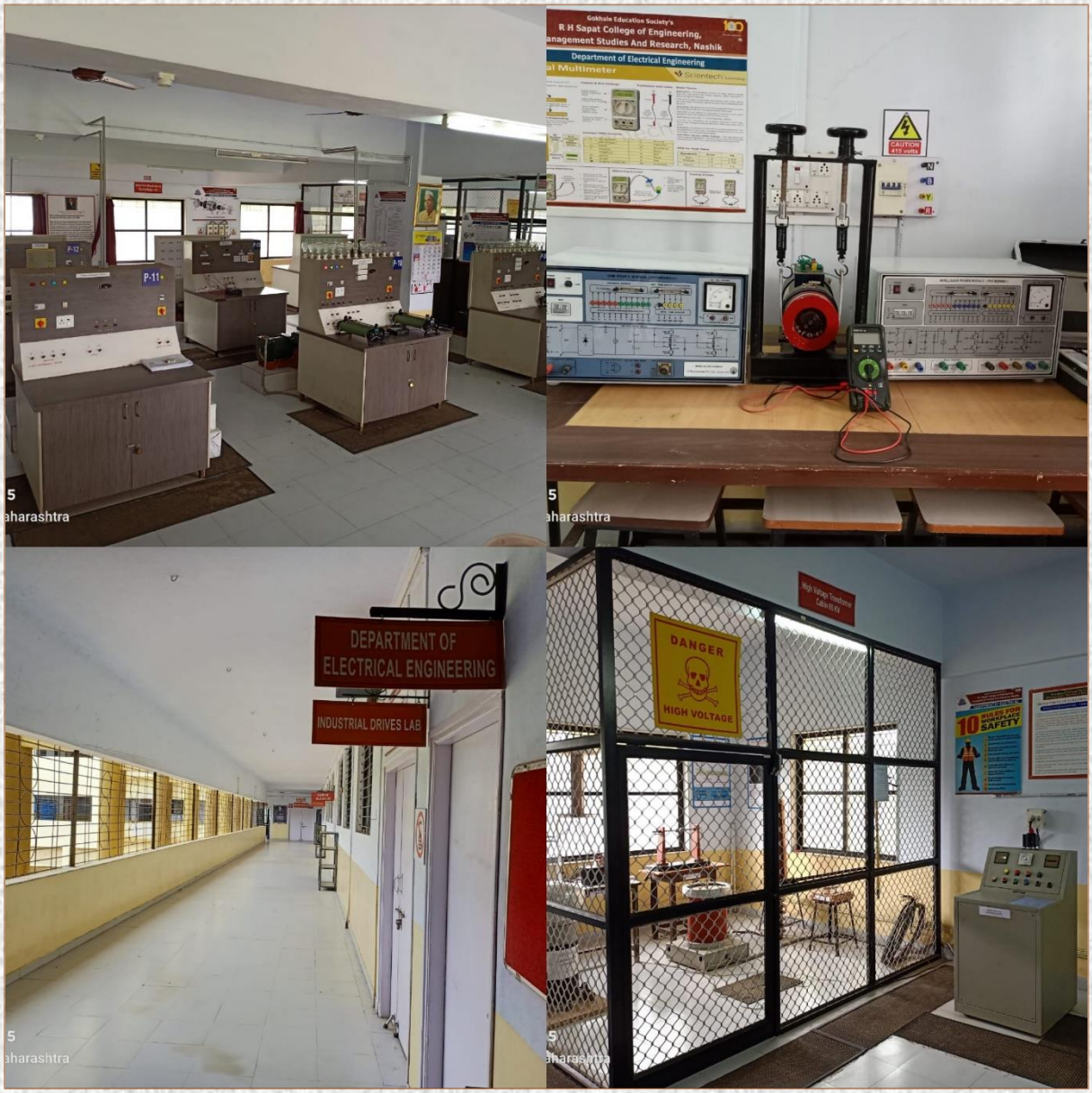
Electric Vehicles
V2G (Vehicle to Grid)
Motor Design for EV
Wind Energy
Smart Grid
Distributed Generation
AI and ML in Electrical Engineering
Charging Infrastructure
Battery Management System
Solar Photovoltaics
Other Renewable Energy Sources
FACTS Devices
Soft Computing Techniques

Contributors:

Prof. S. V. Chakor, Prof. V. S. Meshram, Prof. N.S. Pande Dr. RVS Ramkrishna and all departmental faculties, students and Alumni.

Declaration:

Content in the e-Newsletter "The Quest for Excellence" is compiled by **Prof. Mrs. R. S. Tidke.** Suggestions and inputs leading to the improvement of this newsletter are highly welcomed. Please write on,hod.electrical@ges-coengg.org and rekha.tidke@ges-coengg.org



Please follow us on:

Face book: https://www.facebook.com/GES-RHSapat-COE-Electrical-Department-100939582272211/?ti=as

YouTube: https://www.youtube.com/channel/UClR0eReRx0K-gDoWf0GzHOQ

Department Contact: +918830045447 (Prof S. K. Mahajan)

Address for Correspondence: R.H. Sapat College of Engineering, Management Studies and Research, Prin. T. A. Kulkarni Vidyanagar, College Road, Nashik Pin. 422 005.

Website: https://ges-coengg.org/

Email: principal@ges-coengg.org

Phone Office no.: 0253-2570106.