



# ISLAMIC UNIVERSITY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF ELECTRICAL ENGINEERING

SCHOOL OF ENGINEERING AND TECHNOLOGY

Information Brochure  
2023





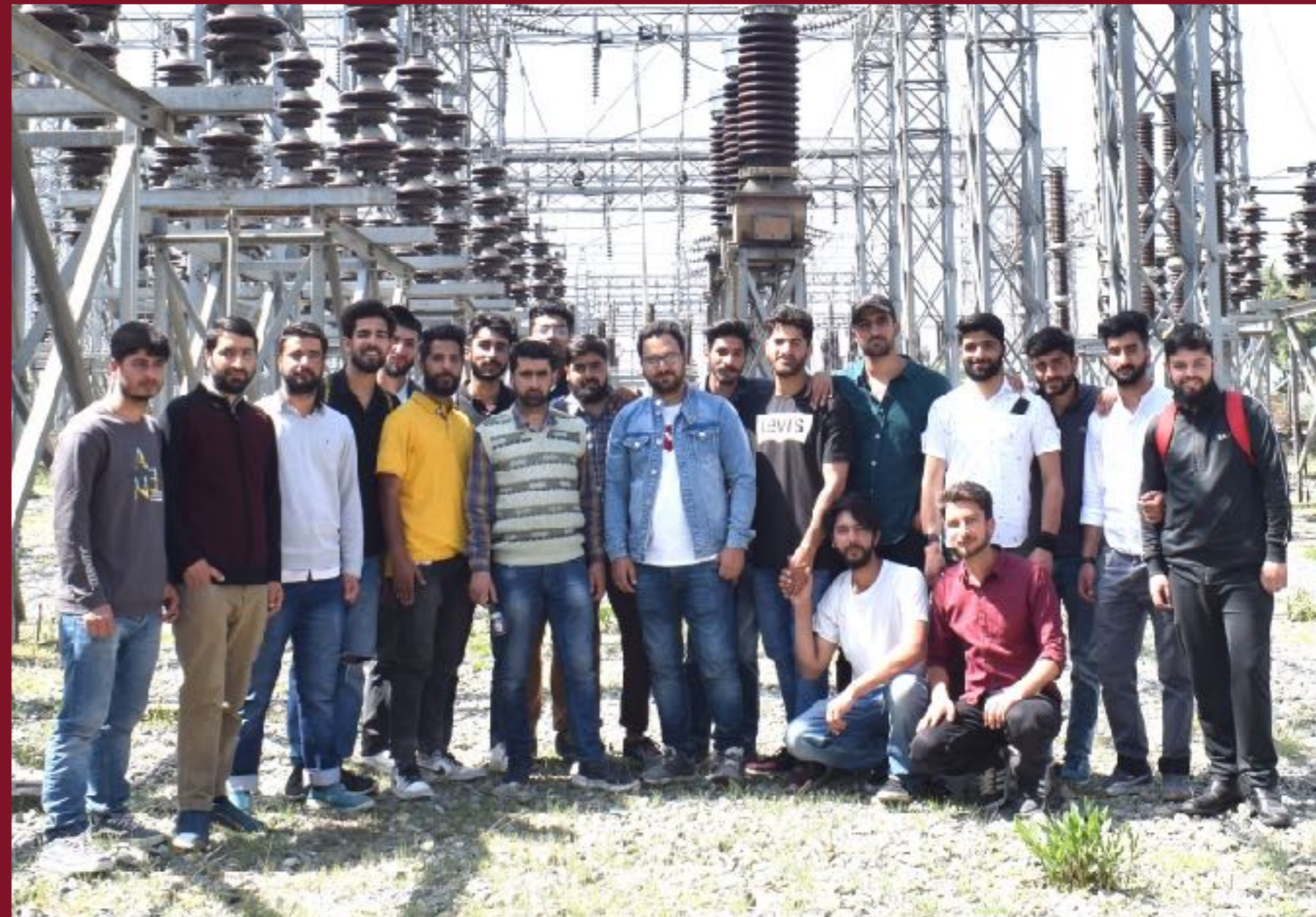
# ISLAMIC UNIVERSITY OF SCIENCE AND TECHNOLOGY

## DEPARTMENT OF ELECTRICAL ENGINEERING

SCHOOL OF ENGINEERING AND TECHNOLOGY

### About Us

The Department of Electrical Engineering at IUST offers undergraduate program awarding a Bachelor of Technology (B. Tech) degree in electrical engineering and a Ph.D. program in electrical engineering. The Department has infrastructural facilities and competent faculty to provide its students with state-of-the-art education in electrical sciences and technology. The undergraduate program aims to provide basic training in the analysis and design of electrical energy systems, including, broadly, systems employed for generation, transmission, control, and conversion of electrical energy. It is also ensured that students gain sufficient knowledge in related disciplines such as electrical and computer sciences so that they remain capable of obtaining a specialised degree in their area of interest.





## Message from HOD

I welcome all the students and their parents to the Department of Electrical Engineering (EE), Islamic University of Science and Technology (IUST). We at EE@IUST are committed to providing quality technical education to our students that is holistic and interdisciplinary by nature.

We strive our best to provide a nurturing environment to our students so that the varied talent hiding in each one of them achieves its full potential and that the seeds of successful future technocrats, entrepreneurs and public servants are sown well in time.

We try to keep abreast of the latest changes in the technological scenario, both in terms of emergence of new and disruptive technologies but also related to new pedagogies like experiential learning, and in doing so ensure that our students get the best education and training.

We hope and pray that the stay of every student who comes to our department is fulfilling and memorable in every respect, and that every one who passes out with a degree in his hands makes us feel very proud in the future.



**Mr. Rayes Ahmad Lone**

# Vision

The Department of Electrical Engineering, Islamic University of Science and Technology aspires to be a destination for high quality scientific and technological education in electrical sciences and technology, a research and innovation hub with special emphasis on sustainable development in the service of humanity, and a centre where education and research are in full compliance with international standards of quality assurance.

# Mission

**M1: Quality education and research:** Engage in high quality education and research with an eye on international standards.

**M2: Skills and competence for serving industrial needs:** Produce skilled and competent manpower trained in electrical engineering and technology for current and emerging needs of the industry.

**M3: Holistic development:** Provide an interdisciplinary learning environment that is student-centric, value-based and promotes holistic student development.

**M4: Societal relevance and sustainable development:** Drive research and innovation in electrical sciences and technology to serve societal needs and with emphasis on sustainable development.



# DEPARTMENT OF ELECTRICAL ENGINEERING

## ABOUT THE COURSE

The curriculum of the B.Tech. (Electrical Engineering) program aims at imparting knowledge and creating skills required for the successful career in the field of electrical engineering and technology. It is designed to be at par with the curriculum at reputed institutes at the national level and complies with directives related to AICTE model curriculum & UGC choice-based credit system (CBCS). The course structure for this program is divided into 8 (eight) semesters with five to six theory courses and 3 to 4 practical courses. The courses primarily aim to provide basic training in analysis and design of electrical energy systems, including, broadly, systems employed for generation, transmission, control and conversion of electrical energy. It is also ensured that the students gain sufficient general knowledge in related disciplines of electrical and computer sciences, so that they remain capable of obtaining a specialized degree in their area of interest.

Along with the B.Tech program, the Department of Electrical Engineering has proposed **Specialisations** in the following new technologies:

- **Sustainable Energy Engineering.**
- **Electric Mobility.**
- **Computational Methods in Dynamical Systems and Control**

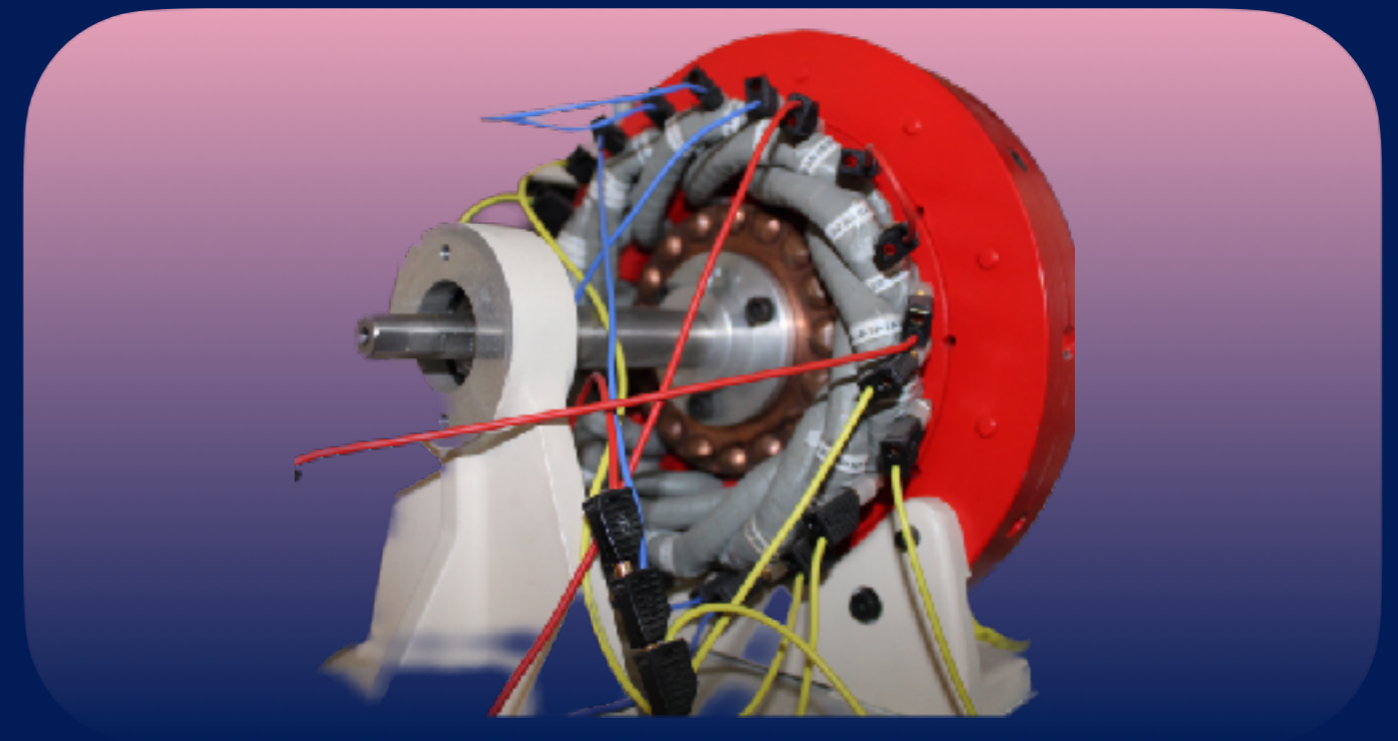


*No resistance can drop our potential*

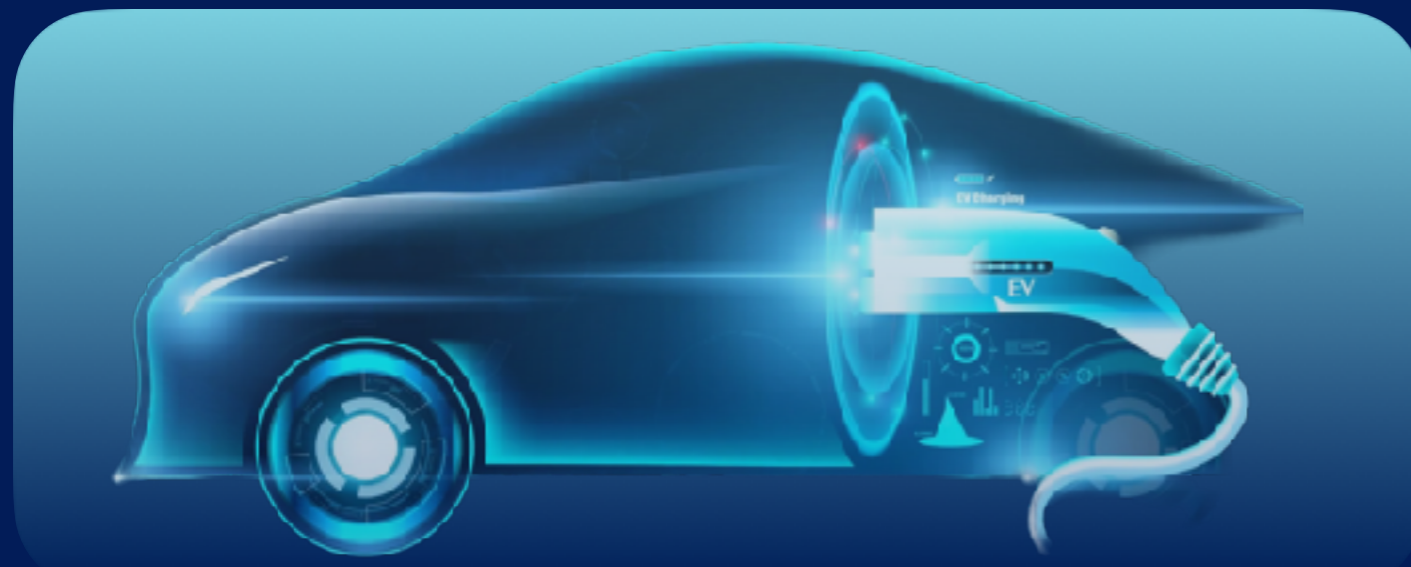
# WHY JOIN US



State-of-the-Art computational software



Hands on with real world instruments and machines



Introduction to new technologies

Curriculum is continuously revised to incorporate modern technologies and meet industry demands



Research and Innovation



# LABORATORIES

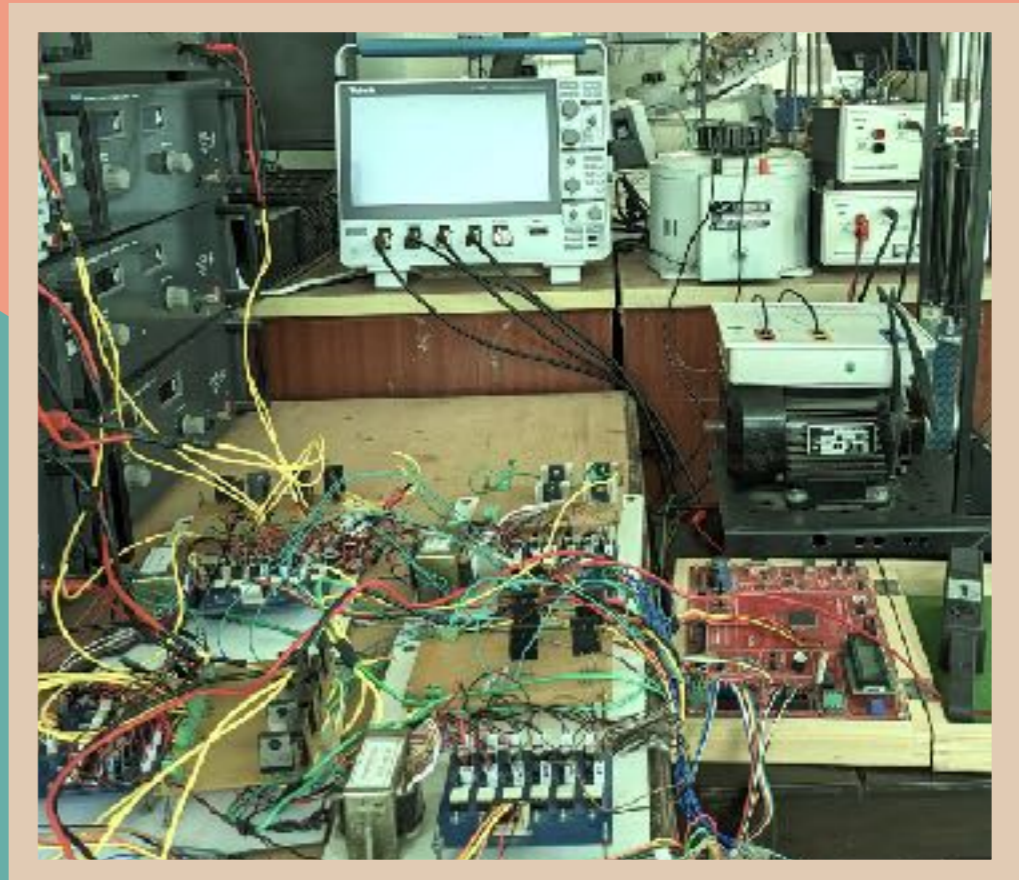


Renewable Energy Lab

*We Step Up, We Transform*



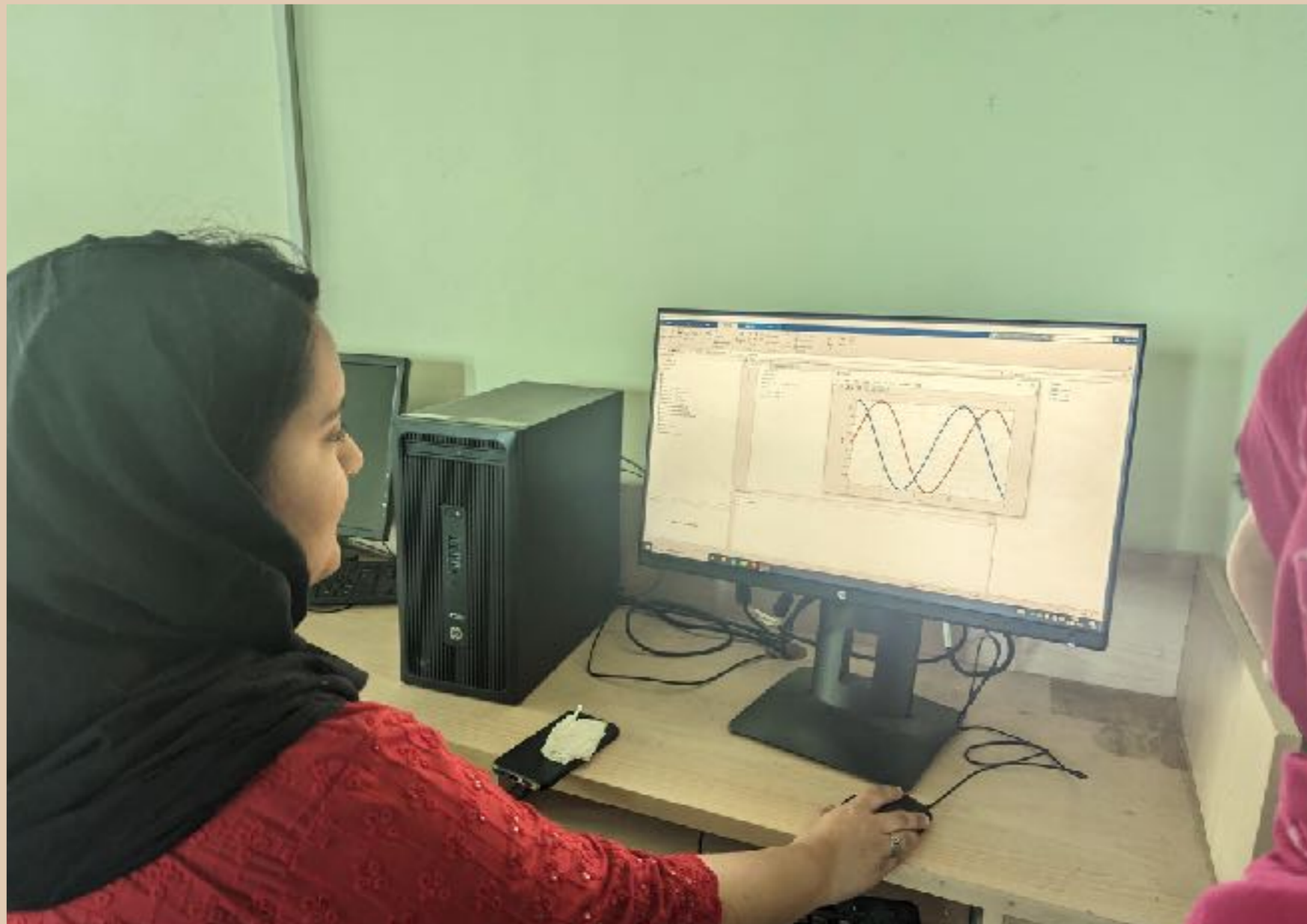
Control Systems Lab



Power Electronics Lab

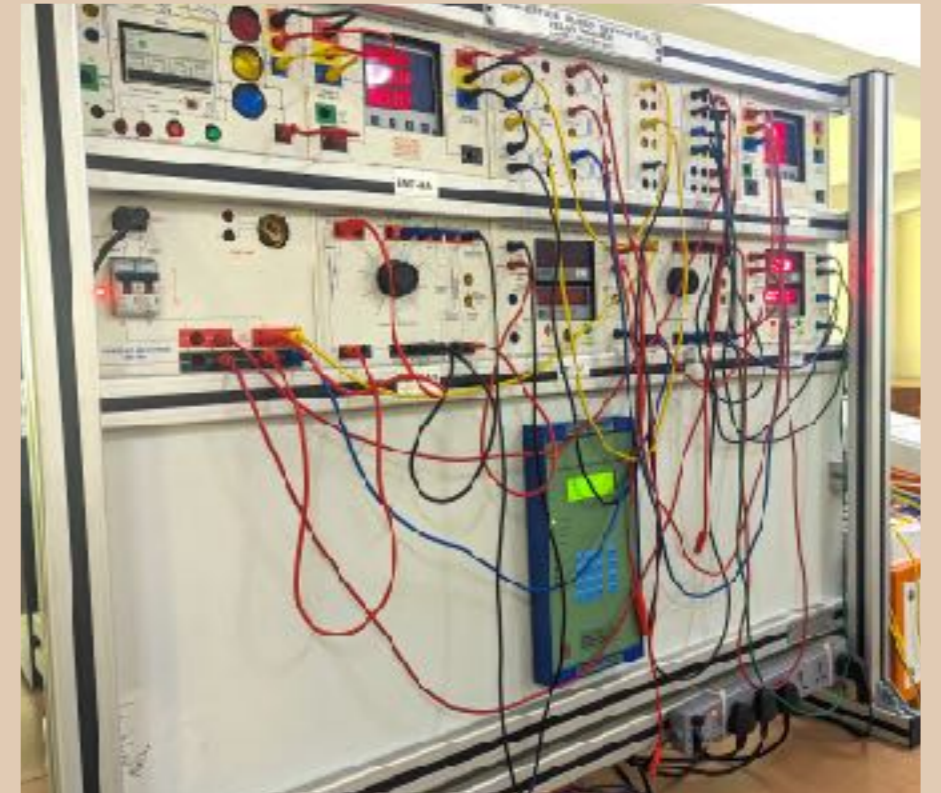


# LABORATORIES



**Simulation Lab**

*We Step Up, We Transform*



**Power Systems Lab**



**Electrical Machines Lab**



# DEPARTMENTAL LIBRARY





## Dr. Shahkar Ahmad Nahvi

Dr. Shahkar Ahmad Nahvi received his PhD in Systems and Control from the Department of Electrical Engineering, IIT Delhi in 2013. He is working as Asst. Prof. at IUST since 2008. His research interests are in Model order reduction (MOR) techniques. He also works in the area of data driven dynamics, especially application of modern data driven techniques to complex systems. He is also working as the Coordinator of the Design Innovation Centre at IUST since 2015, where he has been instrumental in setting up a state-of-the-art Laboratory, facilitating student driven innovation and fostering a spirit of creative thinking amongst the student community.



## Mr. Zahoor Ahmad Ganie

Zahoor Ahmad Ganie received the B.E degree in Electrical Engineering from University of Jammu, Jammu and Kashmir India in 2006, M. Tech degree in Electrical Power and Energy Systems from National Institute of Technology, Srinagar, Jammu and Kashmir, India in 2017. Currently, he is an Assistant Professor in the Department of Electrical Engineering, Islamic University of Science and Technology, Awantipora, India. His research interests include Pulse Width Modulation, Electric Machines and Drives, Modelling and control of Voltage Source Inverters, Multilevel inverters, Reduced Switch count multilevel Inverters, power semiconductor devices.





## Mr. Rayes Ahmad Lone

Currently **Head of the Department**, Electrical Engineering, Islamic University of Science and Technology, Mr. Rayees Ahmad Lone has more than 11 years of teaching and research experience. He has completed his B. Tech from GGS College of Modern Technology Kharar and M.E in Power systems from PEC University of Science and Technology. His research interests are in power system analysis, renewable energy technologies, power system modelling, power generation, power system stability. He has published research articles in highly reputed journals and international conference proceedings.



## Mrs. Sami Jan Lolu

Mrs. Sami Jan Lolu is working in department of Electrical Engineering, Islamic University of Science and Technology as Assistant Professor Science 2014. She is pursuing Ph.D in electrical Engineering from NIT Srinagar. She completed her B.Tech in Electrical Engineering from Jammu University and Masters in Electrical Engineering from Lovely Professional University with Academic Honour. She has teaching experience of 10 years. Her research interests are in Control theory, Power electronics, etc





## Ms. Baziga Youssuf

Ms. Baziga Youssef is currently working as Assistant Professor in the department of electrical engineering, Islamic University of Science and Technology. She is pursuing her Ph.D in electrical Engineering from NIT Srinagar. She completed her B.Tech in Electrical Engineering from Jammu University and Masters in Electrical Engineering from NIT Srinagar. She has teaching experience of more than 8 years. Her research interests are in Power system modelling, Renewable energy, systems etc



## Mr. Javeed Bashir

Mr. Javed Bashir presently works as Assistant Professor in the Department of Electrical Engineering, Islamic University of Science and Technology. He completed his M.Tech from IIT Roorkee and his B.Tech in Electrical Engineering from NIT Srinagar. He brings practical knowledge into his teaching as he has worked as JE in JKPDD from 2015-2018. His research interests include Smart Grid Technology, Micro-grid (AC, DC, hybrid) Protection, Power System protection, Protection issues with FACTS devices, etc. He has more than seven years of teaching experience and has been recently admitted for Ph.D program in IIT Roorkee





## Dr. Mubashar Yaqoob Zargar

Dr. Mubashar Yaqoob Zargar did his B.Tech from Jammu University in 2009 and Mtech from Jamia Millia Islamia University in 2013. He completed his P.hD from NIT Srinagar in November 2018. Currently he is working as Assistant Professor in Department of Electrical engineering, Islamic University of Science and Technology Awantipora. His areas of research are adaptive controller, storage devices, renewable energy sources, Transient stability and control.



## Dr. Ahmed Sharique Anees

Ahmed Sharique Anees received the Ph.D. degree in Electrical Engineering from Jamia Millia Islamia, New Delhi, India, in 2017. Currently, he works as an Assistant Professor in the Department of Electrical Engineering, Islamic University of Science and Technology, Awantipora, India. He has been awarded three sponsored research projects in the area of renewable energy systems, Green Technology based heating system from the Department of Science and Technology- J & K. He has published/presented more than 20 research papers in reputed international and national journals and conference proceedings. His research interests include solar photovoltaic, renewable energy and distributed generation.





## Dr. Salman Ahmad

Dr. Salman Ahmad received the B.Tech. degree in electrical engineering from AMU in 2010, the M.Tech. degree from the IIT Roorkee, India, in 2012, and the Ph.D. degree in power electronics from AMU, in 2020. He is currently an Assistant Professor with the Department of Electrical Engineering, Islamic University of Science and Technology. Having teaching and research experience of more than 8 years. He has published more than 30 technical articles. He received four research grants from various government agencies. His current research interests include power converters, PWM techniques and renewable energy. He was the Session Chair at ECCE 2021 Asia Conference (IEEE) held in Singapore, IEEE STPES 2022, IEEE ASIANCON and PIECON 2022.



## Dr. Viqar Yousuf

Dr. Viqar is currently working as an Assistant Professor in the Department of Electrical Engineering at IUST. He received his Ph.D. in electrical engineering from the National Institute of Technology Srinagar. He has post-Ph.D. teaching experience spanning more than two years. His research interests are in control algorithms for FACTS devices, design for solar PV systems, electrical vehicles, renewable energy and its grid integration, realistic models for load frequency control, fuzzy logic control, advanced neural network control, etc.

For more information and publication details, visit: [www.viqaryousuf.com](http://www.viqaryousuf.com)





## Dr. Danish Rafiq

Dr. Danish Rafiq, an alumni of the Department, is working in the Electrical Engineering Department as a Post Doctoral Fellow under the SERB-National Post Doctoral Fellowship Scheme (NPDF) since 2022. He received his Doctoral Degree from National Institute of Technology (NIT) Srinagar in 2022. His research interests include scientific machine learning, surrogate modelling, high-performance computing and multi-scale dynamics.

For more information visit his personal website: [www.morafiq.in](http://www.morafiq.in)



## Mr. Asif Hamid

Mr. Asif Hamid is currently working as a Research Scholar under the supervision of Dr. S. A. Nahvi, Assistant Professor, EED, IUST since 2020. He has received his Bachelors Degree in Electronics & Communication Engineering in Baba Ghulam Shah Badshah University in 2016 and Masters in Control & Instrumentation from Jamia Milia Islamic University in 2019. His area of research include model order reduction and machine learning.







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FOR ADMISSIONS  
B.TECH (EE) 2023

visit  
[www.iust.ac.in](http://www.iust.ac.in)

### ELIGIBILITY

Passed 10+2 with physics, chemistry, maths and having a valid JEE Score.

### COURSE DURATION

4 years Full Time

### CONTACT US

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