बी0 आई0 टी0 सिन्दरी, धनबाद, झारखण्ड
B.I.T Sindri, Dhanbad, Jharkhand
(Higher Technical and Skill Development, Govt. of Jharkhand)

Potentia
DEPARTMENTAL NEWSLETTER
DEPARTMENT OF ELECTRICAL ENGINEERING

PATRON:

Dr. D. K. SINGH,
DIRECTOR

CO-PATRON:

Dr. D. K. TANTI,
HEAD, EE

3RD EDITION

JULY 2020

FROM THE DIRECTOR'S DESK

Dr. D.K. SINGH

"The first step toward success is taken when you refuse to be a captive of the environment in which you first find yourself."

-Mark Caine

The newsletter of the department of Electrical Engineering of Birsa Institute Of Technology, Sindri namely "POTENTIA" is a compendium of ideas, aspirations and creative dreams and achievements of our talented electrical engineering students, mirroring the spectacular achievements of the students in various activities of the college. It is indeed a matter of prodigious pleasure for me to present this newsletter which will feast your eyes and enlighten your mind.

Electrical engineers involve themselves in rigorous training program and head to innumerable sites to supervise the control systems, microprocessing plants, power and construction, telecommunications, electrical machinery etc to deliver the mankind with necessary electrical capabilities.

Besides being technically competent, our students learn to live, to discern the deeper meaning of life and of transcendence, to interact with others freely and critically and find fulfillment in work. It is through inculcating these values that we can hope for a more human and humane future and a more harmonious society. Our education mission and policy in the context of India today and the India of tomorrow is the re-creation of human lives, communities and the wider society in collaboration with all people of goodwill and their institutions and organizations.

This newsletter is a collective effort, for which I extend my holistic gratefulness and congratulations to the creative team who have put together their very best to gauge the academic, extra-curricular and co-curricular index of the college. I hereby announce "POTENTIA" as the departmental newsletter of Electrical Engineering branch.

HEAD OF DEPARTMENT'S ADDRESS

Dr. D.K. TANTI

"The desire of knowledge, like the thirst of riches, increases ever with the acquisition of it"

In conjunction with being one of the oldest and most sought-after discipline in this prestigious institute of B.I.T. Sindri, the Department of Electrical Engineering carries the beacon of maintaining an exceptional track record of excellence and a consistent yearn of outperforming others. This spark has been bolstered by the perennial learners of this department and nurtured equally well by the faculties who seldom stall to strike a chord with brilliance. The purpose behind the release of quintessential.

As rightfully objectified by the name, 'POTENTIA', a newsletter stringently dedicated to the Department of Electrical Engineering promises a plethora of valour on the part of students when it comes to tackling a problem deftly. And as we embark on a rather euphoric journey, mended beautifully and professionally between the faculty and the student community, I couldn't be prouder to be leading this prolific Department of exquisite possibilities. This promising partnership will indeed be the torchbearer of an emphatically diverse future aimed at creating a conducive environment for creativity.

As the quest for gaining global recognition in the field of imparting holistic technical education continues, 'POTENTIA' will essentially serve as a medium for escalating every prodigious and minute step in this eventful journey.

For the unhackneyed beginning that awaits us, I, on behalf of the entire department, pledge my devotion to the unbounded prowess and excellence on a global level and hereby convey my gratitude and regards to the entire team of 'POTENTIA'.

ABOUT THE INSTITUTE

Birsa Institute of Technology, formerly known by the name of Bihar Institute of Technology, is a premier institute under the Department of Science and Technology, Government of Jharkhand. Established in 1949, B.I.T. Sindri boasts of a lush green campus spanning 450 acres and all the amenities to promote the overall development of each student. The college offers Bachelor of Technology (B.Tech) and Master of Technology (M.Tech) programme for the brightest students of the state and aims at the multidimensional grooming of students during their stay. It offers education is ten disciplines of engineering namely- Mechanical, Electrical, Civil, Production, Mining, Metallurgy, Electronics and Communication, Chemical, Information Technology and Computer Science. All the departments are facilitated with laboratories to replenish and boost the practical exposure of students to the theoretical principles. The institute also has several student-run organisations and societies which contribute significantly in polishing students' soft skills, communication and technical skills. With the advancement in placement statistics over the years, B.I.T. Sindri strives to become the Mecca for a multitude of engineers-in-making.

VISION OF THE INSTITUTE

To provide the valuable human resources for the industry and society through the excellence in technical education and scientific research for the sustainable development.

MISSION OF THE INSTITUTE

1. To offer the state-of–the-art undergraduate, postgraduate and doctoral programmes.
2. To generate new knowledge by quality research.
3. To undertake the collaborative projects with industries and society.
4. To develop human intellectual capacity with its full potential.
5. To solve problems of society through innovation in technology.

ABOUT THE DEPARTMENT

The Department of Electrical Engineering is one of the major Departments of BIT Sindri since its inception in 1949. The department offers four years B.Tech. degree course and two years postgraduate program is also offered leading to M.Tech. degree with specialization in Control System and Power System.

The Department has continuously evolved along with the needs of industry and academia without compromising on its core principles reflected in the Vision and Mission of the Department. Outcome based teaching learning process has been successfully adopted by the Department. The Department has a healthy blend of young and experienced faculty members, all of whom display high levels of enthusiasm and dedication. Apart from teaching and research, the faculties are actively engaged in upgrading their technical and pedagogical skills by attending relevant training programs as and when needed.

The Department firmly believes in imparting a strong hands-on flavour to its graduates, and therefore places emphasis on the laboratory component, vocational training, internships and projects. The Department has well equipped laboratories and simulation software required for undergraduate and postgraduate programs. Under the state-of-art SIEMENS Centre of Excellence Facility, the students and the faculty of the Department undergo regular training on industrial automation. The important laboratories of the Department include: Power System Lab, Power Electronics Lab, Control System Lab, Electrical Machines Lab, Instrumentation Lab, Computer Lab and Electrical Workshop. The Department is also looking after the electrical sub-station of the institute which is responsible for maintaining the 14 Km distribution line of the BIT campus. The prestigious million volt Atkinson High Tension Laboratory of the department is considered as first of its kind in India in the yesteryears.

The Department has also an active and strong alumni network. Many alumni of the department hold prominent positions in academic institutions, PSUs, research laboratories and government organizations.

VISION OF THE DEPARTMENT

To emerge as a globally recognized centre in the field of Electrical Engineering to provide valuable human resource and ambience for innovative research for sustainable development of industry and society.

MISSION OF THE DEPARTMENT

1. To offer state-of-the-art undergraduate, post graduate and doctorate programmes by providing a conducive environment towards outcome-based teaching learning process with knowledge and skill creation, suitable for contemporary and future needs of industry.

2. To promote creative ambience in order to generate new knowledge by conducting quality research in collaboration with Electrical, Electronics and allied industries.

3. To bridge the gap between industry and academia by framing curriculum and syllabi based on industrial and societal needs so that competency of the students matches the upcoming challenges in education, profession and life.

4. To instil moral and ethical values among the students through holistic personality development so as to ensure human intellectual capacity to its full potential.

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering Fundamentals and an engineering specialization to the solution of complex engineering problems.

PO2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

PEO1. To inculcate the attitude to solve real life engineering problems with the implication of the fundamental knowledge based on science and electrical engineering.

PEO2. To impart quality technical education to students, which enables them to face challenges in industry, society and pursuing higher studies.

PEO3. To envisage expertise in career enhancement with industrial training and to promote leadership skills.

PEO4. To foster values and ethics with strong foundation to undertake team work with effective communication skills.
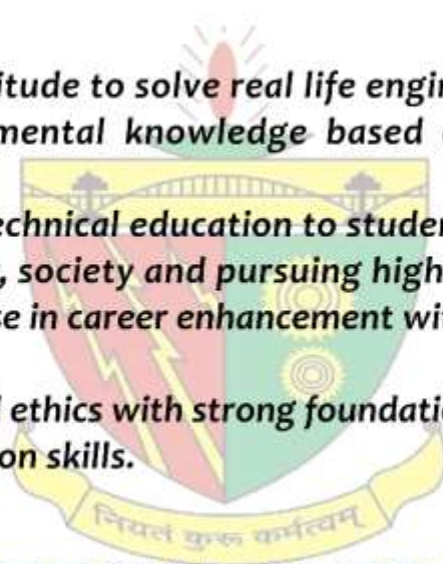
PROGRAM SPECIAL OUTCOMES(PSOs)

PSO1. Ability to utilize the knowledge acquired from basic sciences, basic computing and electrical engineering courses to work in multi-disciplinary environment and to cater the diversified needs of industry and academia.

PSO2. Ability to identify and solve different technical issues related with electrical engineering by integrating the knowledge acquired from the curriculum and industry- academia interactions.

PSO3: Able to demonstrate effective communication and inter-personal skills with management principles for career and professional advancement.

FACULTY PUBLICATIONS

❭ **Dr. PANKAJ RAI**

• *Optimum generation of solar PV system using grey wolf optimization method, 7th Intl. Conference on Research Developments in Applied Science, Engg. And Management, 15-16th June 2019*

• *Modeling and control of dynamic battery storage system using hybrid grid, Energy Storage, 2020, DOI:10.1002/est2.146*

❭ **Dr. R.P GUPTA**

• *Performance Evaluation of PV module with battery storage in microgrid, Nanoelectronics, circuits and communication systems (NCCS) 2018, Lecture Notes in Electrical Engineering Vol. 642, pp:197-217, 2020*

• *Operational performance of on-grid solar photovoltaic system integrated into pre-fabricated portable cabin buildings in warm and temperate climates, Energy for Sustainable Development, 2020, https://doi.org/10.1016/j.esd.2020.05.008*

❭ **Mr. BISWARANJAN MISHRA**

• *Optimal Placement of PMUs for Power System State Estimation, 2019IEEE International Conference on Sustainable Energy Technologies and Systems (ICSETS), DOI: 10.1109/ICSETS.2019.8745327*

❭ **Dr. KAUSHIK PAUL**

• *Optimal Rescheduling of Real Power to mitigate Congestion Using Gravitational Search Algorithm, Turkish Journal of Electrical and Computer Engineering, Vol. 27, pp. 2213-2225, 2019.*

• *Congestion Control by Optimal Engagement of Distribution Generation Using Hybrid Evolutionary Algorithm, International Journal of Innovative Technology and Exploring Engineering, Vol.8. No.12. pp.3329-3336. 2019.*

• *Optimal Rescheduling of Real Power to Mitigate Congestion Using Elephant Herd Optimization, Intelligent Computing in Control and Communication (ICCC 2020), Srikakulam, India, 2020, pp. 1-10*

• *Optimal Scheduling for Delay Management in Railway Network using Hybrid Bat Algorithm, Intelligent Computing in Control and Communication (ICCC 2020), Srikakulam, India, 2020 pp. 1-12*

❯ Mrs. KUMARI SARWAGYA

• Detection and Classification of Faults in Distribution System Using Signal Processing Techniques, IEEE- International Conference on Computer, Electrical & Communication Engineering, Feb. 2020, Kolkata.

• Optimal coordination of directional overcurrent relays in complex distribution networks using sine cosine algorithm, Electric Power Systems Research, 2020, https://doi.org/10.1016/j.epsr.2020.106435

❯ Mr. MATTA MANI SHANKAR

• Performance Evaluation of PV module with battery storage in microgrid, Nanoelectronics, circuits and communication systems (NCCS) 2018, Lecture Notes in Electrical Engineering Vol. 642, pp:197-217, 2020

• Comparative study of Pareto optimal multi objective cuckoo search algorithm and multi objective particle swarm optimization for power loss minimization incorporating UPFC, Journal of Ambient Intelligence and Humanized Computing, 2020, https://doi.org/10.1007/s12652-020-02142-4.

❯ Mr. RAMESH DEVRAPALLI

• Modeling and control of dynamic battery storage system using hybrid grid, Energy Storage, 2020, DOI:10.1002/est2.146

• A Framework for H2/H∞ Synthesis in Damping Power Network Oscillations with STATCOM, Iran J Sci Technol Trans Electr Eng. 2020;44(2):927-948, DOI:10.1007/s40998-019-00278-4

• A hybrid modified grey wolf optimization-sine cosine algorithm-based power system stabilizer parameter tuning in a multimachine power system, Optimal Control Applications and Methods, DOI:10.1002/oca.2591

• Interval Modeling of Riverol-Pilipovik Water Treatment Plant and Its Model Order Reduction, In: Giri VK, Verma NK, Patel RK, Singh VP, eds. Computing Algorithms with Applications in Engineering. Algorithms for Intelligent Systems. Springer; 2020:361-367, DOI:10.1007/978-981-15-2369-4_30

- Application of Modified Harris Hawks Optimization in Power System Oscillations Damping Controller Design, In: 2019 8th International Conference on Power Systems (ICPS). ; 2019:1-6, DOI:10.1109/ICPS48983.2019.9067679
- Optimal Parameter Tuning of Power Oscillation Damper by MHHO Algorithm, In: 2019 20th International Conference on Intelligent System Application to Power Systems (ISAP). ; 2019:1-7, DOI:10.1109/ISAP48318.2019.9065988

❯ Dr. SUMAN RANJAN

- Optimal coordination of directional overcurrent relays in complex distribution networks using sine cosine algorithm, Electric Power Systems Research, 2020, https://doi.org/10.1016/j.epsr.2020.106435

SPONSORED RESEARCH

SR. NO	NAME OF PI	TITLE OF PROJECT	SANCTIONED AMOUNT	FUNDING AGENCY	DURATION
1.	Mr. Biswaranjan Mishra	Linear State Estimation based on PMU Measurements	₹653000	TEQIP-III	ONE YEAR
2.	Mr. Ramesh Deverapalli	Controller design for interval-modeled Riverol Pilipovik water treatment plant.	₹265000	TEQIP-III	ONE YEAR
3.	Mr. Suman Ranjan	Design and modelling of microring resonator based biosensor	₹1496000	TEQIP-III	ONE YEAR
			₹2414000		

WORKSHOP ATTENDED BY FACULTY

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
1.	Dr. D.K. Tanti	Autonomy and Control for Robotic Systems using MATLAB	ELMAX Systems & solutions	15 May, 2020
		Innovations for Sustainable Electricity Systems	BIT Sindri & IEI	21 Sept, 2019
		Digital Transformation in Teaching Learning Process	NPIU & IIT Bombay	16-30 March,2020
		Induction Motor	TATA Steel	5 May,2020
		Power System Earthing	TATA Steel	20 May,2020
		Power System Protection	TATA Steel	24 May,2020
		Power System Transmission and Distribution	TATA Steel	27 May,2020
		Transformer	TATA Steel	21 May,2020
		Virtual Labs	NIT Surathkal, Jharkhand Education Grid,JUT & BIT Sindri	29 June,2020
2.	Dr. R.P. Gupta	FDP on LATEX	Jamshedpur Women's Colege & Spoken Tutorial, IIT, bombay	13-19 July, 2020
		Bio Energy Technologies and Transitions	NIT, Kurukhetra & GEC, Bikaner	18-22 May, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
2.	Dr. R.P. Gupta	Digital Transformation in Teaching Learning Process	Swayam, IIT Bombay	6-22 April, 2020
		ICT tools for Learning process and Institutes	NKN, ICT at BIT Remote Centre	13-17 Jan 2019
		Natural Languages Processings	NKN, ICT at BIT Remote Centre	6-10 Jan, 2020
		Water scenario of Dhanbad District : emerging Challenges	As organising secretary, BIT, Sindri	22 July, 2019
		Entrepreneurship Summit-2019	As organising secretary, BIT, Sindri	15-17 Nov, 2019
		International Symposium on 5G & Beyond for Rural Upliftment	At IIT(ISM) & BIT, Sindri	8-9 Feb, 2020
		Autonomy and Control for Robotic Systems using MATLAB	ELMAX Systems & solutions	15 May, 2020
		Power System Earthing	TATA Steel	17 March, 2020
		Power System Protection	TATA Steel	19 March, 2020
		Power System Cables	TATA Steel	24 March, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
3.	Mr. Anuj Pandey	Virtual Labs	NIT Surathkal, Jharkhand Education Grid,JUT & BIT Sindri	29 June, 2020
		Introduction to smart grid	IIT Roorkee	June-Sept 2019
		DC Microgrid	IIT Roorkee	June-Sept 2019
		Power Quality Improvement Technique	IIT Roorkee	Jan- April 2020
		Advance Power Electronics and Control	IIT Roorkee	Jan- April 2020
		Simulating Power Electronic circuits using Python		May 2020
4.	Mr. Avinash Mishra	Digital Transformation in Teaching Learning Process	IIT Bombay	April, 2020
		Quality Control	Production Engg Dept. BIT Sindri	5-9 June, 2020
		Autonomy and control for robotics system using MATLAB	ELMAX	15 May,2020
		Leadership Talk	BIT Sindri, Innovation Cell	16 June, 2020
		Smart energy solution to boost power sector economy during pandemic	Teerthankar mahaveer university Moradabad	6 June, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
4.	Mr. Avinash Mishra	Induction Motor	TATA Steel	21 March, 2020
		Power System Protection	TATA Steel	21 March, 2020
		Power System Transmission and Distribution	TATA Steel	21 March, 2020
		Power System Cables	TATA Steel	
5.	Mr. Biswaranjan Mishra	Transformer	TATA Steel	21 March, 2020
		OBE	SR Institute of Management & Technology, Lucknow	16-18 July 2020
		LaTex	Jamshedpur Women's College & Spoken Tutorial, IIT Bombay	13-19 July 2020
		Virtual Labs	NIT Surathkal, Jharkhand Education Grid,JUT & BIT Sindri	29 June, 2020
		Innovation-IPR- StartUps	JIS College of Engineering,West Bengal	3-6 June, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
5.	Mr. Biswaranjan Mishra	Intelligent Control Systems	New Horizon College of Engineering, Bangalore	29 May, 2020
		MATLAB & Its Applications in AI &ML	NIT Patna & AEC, Kumbakonam,TN	19-26 May, 2020
		Autonomy and Control for Robotic Systems using MATLAB	ELMAX Systems & solutions	15 May, 2020
		Digital Transformation in Teaching Learning Process	NPIU & IIT Bombay	16-30 March, 2020
6.	Dr. Koushik Paul	Digital Transformation in Teaching Learning Process	NPIU & IIT Bombay	16-30 March, 2020
		Autonomy and Control for Robotic Systems using MATLAB	ELMAX Systems & solutions	15 May, 2020
		Virtual Labs	NIT Surathkal, Jharkhand Education Grid,JUT & BIT Sindri	29 June, 2020
		GIS Application in Transportation Engineering	NIT Jamshedpur	30 June, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
7.	Mr. G. Vijaya Kumar	Innovations for Sustainable Electricity Systems	BIT Sindri & IEI	21 Sept, 2019
		Digital Transformation in Teaching Learning Process	SWAYAM	6-22 April, 2020
		Innovations for Sustainable Energy Systems	TEQIP-III	21 Sept, 2019
		Induction Motors	TATA - Capability Development	19 April, 2020
		Advanced Microsoft Excel	TATA - Capability Development	19 April, 2020
		National Webinar on Virtual Lab	TEQIP-III	16 April, 2020
		Best Practices]in Operation & Maintenance of Solar Power Plants	BVRIT Narsapur, Medak	3 June, 2020
		Leadership Talk	MHRD's Innovation Cell	23 May, 2020
		Autonomy and control for robotic systems using MATLAB	Elmax Systems and Solutions	15 May, 2020
		FDP on LaTex	Jamshedpur Women's College in collaboration with Spoken Tutorials by IIT Bombay	13-19 July, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
7.	Mr. G. Vijaya Kumar	One week Short term training program on Environmental Crisis and Sustainable Energy	NIT Kurukshetra and Govt Engg coll by Bikaner under TEQIP-III	1-5 July, 2020
		One week Short term training program on Green Energy Technologies for sustainable development	NIT Kurukshetra and Govt Engg coll by Bikaner under TEQIP-III	11-20 June, 2020
8.	Mr. M. Mani Shankar	Innovations for Sustainable Electricity Systems	BIT Sindri & IEI	21 Sept, 2019
		Antenna Trends	E & ICT Academy	1-5 July, 2020
		Autonomy and control for robotic systems using MATLAB	Elmax Systems and Solutions	15 May, 2020
		Digital Transformation in Teaching Learning Process	NPIU & IIT Bombay	16-30 March, 2020
		Virtual Labs	NIT Surathkal, Jharkhand Education Grid, JUT & BIT Sindri	29 June, 2020
9.	Mr. Mukhleswar Rehman	Advanced Pedagogy & Digital tool for TEQIP faculty members	IIT Kharagpur	10-14 June, 2020
		Natural Language Processing	MeitY, Government of India	6-10 Jan, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
9.	Mr. Mukhleswar Rehman	Digital Transformation in Teaching Learning Process	IIT Mumbai,(TEQIP-III, SWAYAM)	6-22 April, 2020
		The emerging need for improved power quality	ABB	12 May, 2020
		Top 5 reasons to switch to digitally- integrated power transformers	ABB	19 May, 2020
		Elearning program on Induction Motor	TATA Steel	21 April, 2020
		Elearning program on Transfomer	TATA Steel	21 April, 2020
		Elearning program on Power Systems Earthing	TATA Steel	28 April, 2020
		Elearning program on Basic TQM	TATA Steel	26 April, 2020
		Autonomy and control for robotic systems using MATLAB	Elmax Systems and Solutions	15 May, 2020
		Typhoon HIL for Real Time Power System & Protection Studies	QUARBZ Info Systems & Typhoon HIL Gmbz,Switzerland	20-24 May, 2020
		Green Energy Technologies for Sustainable Development	NIT KURUKSHETRA & GEC BIKANER	11-20 June, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
9.	Mr. Mukhleswar Rehman	Recent Trends in Electronics Engineering	LNJPIT Chapra	15-20 June, 2020
		Virtual Labs	NIT Surathkal, Jharkhand Education Grid,JUT & BIT Sindri	29 June, 2020
10.	Ms. Niharika	Introduction to Smart Grid	Dept. of EE, IIT Roorkee	July- Sept 2019
		Innovations for Sustainable Energy Systems (ISES 2019)	BIT Sindri & IEI	21 Sept 2019
		Next Generation Power Grids	CCE, IISc Bengaluru	
		Internet of Things (IoT)	IIT Bombay	6-8 Jan 2020
		Digital Transformation in Teaching Learning Process	IIT Mumbai,(TEQIP-III, SWAYAM)	27-31 Jan 2020
		Autonomy and control for robotic systems using MATLAB	Elmax Systems and Solutions	16-30 March, 2020
		Virtual Labs	NIT Surathkal, Jharkhand Education Grid,JUT & BIT Sindri	15 May, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
11.	Mr. Nishant Kumar	FREE Open Source Tools for Education and Research	IIT Bombay	29 June, 2020
		Innovations for Sustainable Energy System	BIT Sindri & IEI	21 Sept, 2019
		Internet of Things	IIT(ISM) Dhanbad	14-18 Oct, 2019
		Python Programming with Industry Perspective	NIT Patna	2-6 Dec, 2019
		ICT Tools for Teaching Learning Process & Institutes	E & ICT Academics	13-17 Jan, 2020
		International Symposium on 5G and Beyond for Rural Upliftment	IIT(ISM) Dhanbad & BIT Sindri	8-9 Feb, 2020
		National Webinar Virtual Labs	IET, Dr. RLA University Ayodhya & SPIU UP	16 April, 2020
		Digital Transformation in Teaching Learning Process	NPIU & IIT Bombay	6-27 April, 2020
		Innovation cell(GOI)	MHRD	18-22 May, 2020
		Bio energy technology and transition	NIT Kurukshetra	
		Smart Energy Solutions to Boost Power Sector Economy During Pandemic	Teerthanker Mahaveer University Moradabad in association with (IIC), a venture of MHRD	6 July, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
11.	Mr. Nishant Kumar	Basics of Fire and Safety Engineering	Department of Fire Technology and Safety Engineering, NICHE, Tamilnadu	10 June, 2020
		Role of Artificial Intelligence in Future Microgrid Control	Silicon Institute of Technology Sambalpur, Odisha	17-20 June, 2020
		Electric Vehicles: New Trends and Technologies	Department of Electrical & Electronics Engineering, ABES Engineering College, Ghaziabad	22-26 June, 2020
		Virtual Labs	Jharkhand Education grid, RUSA Jharkhand, JUT & BIT Sindri	29 June, 2020
12.	Mr. Praveen Kumar	Antenna Trends	E & ICT Academics	1-5 July, 2019
		Innovations for Sustainable Energy System	BIT Sindri & IEI	21 Sept 2019
		Internet of Things	IIT(ISM) Dhanbad	14-18 Oct, 2019

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
12.	Mr. Praveen Kumar	Entrepreneurship Summit-2019	Startup Cell & IIC, BIT Sindri	15-17 Nov, 2019
		Python Programming with Industry Perspective	NIT Patna	2-6 Dec, 2019
		ICT Tools for Teaching Learning Process & Institutes	E & ICT Academics	13-17 Jan, 2020
		International Symposium on 5G and Beyond for Rural Upliftment	IIT(ISM) Dhanbad & BIT Sindri	8-9 Feb, 2020
		Faculty Development Program for Student Induction (FDP-SI)	AICTE at CUJ Ranchi	20-22 Jan, 2020
		National Webinar Virtual Labs	IET, Dr. RLA University Ayodhya & SPIU UP	16 April, 2020
		Digital Transformation in Teaching Learning Process	NPIU & IIT Bombay	16-30 March, 2020
		1. Machine Learning 2. Induction Motor 3. Power System Protection 4. Power System generation 5. Power System Transmission & Distribution 6. Transformer 7. Total quality Management 8. Power System Earthing 8. Power System Earthing	TATA STEEL	April- May, 2020

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
12.	Mr. Praveen Kumar	Autonomy and Control for Robotic Systems using MATLAB	ELMAX Systems & Solutions	15 May, 2020
		Mental Health Awareness For COVID-19	Dumka Engineering College	16 May, 2020
		Art of Online Teaching, Research Paper writing & Patent Registration	Institute of Technology & Management, Nanded India	18-20 May, 2020
		Piezoelectric Based Energy Harvesting Techniques	Mohamed Sathak AJ College of Engineering	3 June, 2020
		Smart Energy Solutions to Boost Power Sector Economy	Teerthanker Mahaveer University Moradabad in association with (IIC), a venture of MHRD	6 July, 2020
		Environmental and Sustainable development	DTE Rajasthan	5 June, 2020
		Basics of Fire and Safety Engineering	Department of Fire	10 June, 2020
		Outcome Based Education Software	Technology and Safety Engineering, NICHE, Tamilnadu	11 June, 2020

| SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
12.	Mr. Praveen Kumar	Developing an E-Content	vmedulife	18-19 June, 2020
		Artificial Intelligence: Science of Present and Future	Chandil Polytechnic, Jharkhand,India	19 June, 2020
		Entrepreneurship (Idea to Business Plan, Business Skills for Entrepreneurs, Startup to IPO)	BIT Sindri in collaboration with Alumni Association of North America (BITSAANA)	6 May- 24 June, 2020
		Role of Artificial Intelligence in Future Microgrid Control	Silicon Institute of Technology Sambalpur, Odisha	17-20 June, 2020
		Electric Vehicles: New Trends and Technologies	Department of Electrical & Electronics Engineering, ABES Engineering College, Ghaziabad	22-26 June, 2020
13.	Mr. Rakesh Rohan	Virtual Labs	Jharkhand Education grid, RUSA Jharkhand, JUT & BIT Sindri jointly	29 June, 2020
		Introduction to Smart Grid	NPTEL	July- Sept, 2019

SR. NO	NAME OF FACULTY	NAME OF WORKSHOP/FDP/ ONLINE COURSE/WEBINAR	ORGANISING INSTITUTE	DATE
13.	Mr. Rakesh Rohan	The Era of Digital Transformation	BIT Sindri	8-12 July, 2019
		First Annual Innovation Festival of MHRD's Innovation Cell	MHRD's Innovation Cell	11 Sept, 2019
		Innovations for Sustainable Energy System	BIT Sindri & IEI	21 Sept, 2019
		Internet of Things	IIT(ISM) Dhanbad	14-18 Oct, 2019
		Entrepreneurship Summit-2019	Startup Cell & IIC, BIT Sindri	15-17 Nov, 2019
		Deep Learning and Applications	E & ICT Academics	9-13 Dec, 2019
		AI and Machine Learning	E & ICT Academics	23-27 Dec, 2019
		National Webinar Virtual Labs	IET, Dr. RLA University Ayodhya & SPIU UP	16 April, 2020
		Digital Transformation in Teaching Learning Process	NPIU & IIT Bombay	16-30 March, 2020
		Autonomy and Control for Robotic Systems using MATLAB	ELMAX Systems & Solutions	15 May, 2020
		Leadership Talk	MHRD's Innovation Cell	30 May, 2020

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14.	Mr. Ramesh Devrapalli	Role of Artificial Intelligence in Future Microgrid Control	Silicon Institute of Technology	17-20 June, 2020
		Power quality issues and challenges in microgrid	GVP, Visakhapatnam	28 May, 2020
		Open internet Resources	RCE, W.G, A. P.	10 May, 2020
		MATLAB for deep learning	AISSMS	30 May, 2020
		Outcome based education software	Vmedulife	11 June, 2020
		Intelligent control systems	NHCE, Bangaluru	29 May, 2020
		Recent Trends in Electrical Engineering	Vishnu Institute of Technology,	8-12 June, 2020
		Electric Vehicles: New Trends and Technologies	ABES, Lucknow	22-26 June, 2020
		Virtual Labs	Jharkhand Education grid, RUSA Jharkhand, JUT & BIT Sindri jointly	29 June, 2020

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15.	Mrs. Kumari Sarvagya	Digital Transformation in Teaching Learning Process	MHRD-TEQIP-III	27-31 Jan, 2020
		Autonomy and control for Robotic systems using MATLAB	IIT Bombay	16-30 March,2020
		Virtual Labs	TEQIP-III-NPIU	
16.	Dr. Suman Ranjan	Digital Transformation in Teaching Learning Process	MHRD-TEQIP-III	27-31 Jan, 2020
		Autonomy and control for Robotic systems using MATLAB	IIT Bombay	16-30 March,2020
		Virtual Labs	TEQIP-III-NPIU	15 May, 2020
17.	Mr. Vandan Raj Kamal Aluri	Virtual Labs	NITK & BIT Sindri	29 June, 2020
		Advanced Pedagogy & Digital Tools	IIT Kharagpur	10-14 June, 2019
		Python Programming & Machine Learning with Python	MNIT Jaipur	2-6 Dec, 2019
		Digital Transformation in Teaching Learning Process	IIT Bombay	6-22 April, 2020

WORKSHOP ORGANISED BY DEPARTMENT

One Day All India Workshop under Electrical Engineering Division of IEI & TEQIP III, BIT Sindri on "Innovations for Sustainable Energy Systems (ISES 2019)", organised by Institute of Engineers (India), Dhanbad Local Centre in collaboration with Department of Electrical Engineering, BIT Sindri was held on 21st Sept. 2019. Prof. D. K. Tanti, Head, Dept. of EE and Mr. Rajendra Murmu, Asst. Prof., Dept. of EE acted as Conveners. Mr. M. K. Singh, Sr. Principal Scientist, CSIR-CIMFR, Dhanbad, Ms. Niharika, Asst. Prof., Dept. of EE and Mr. Biswaranjan Asst. Prof., Dept. of EE acted as Coordinators for the workshop.
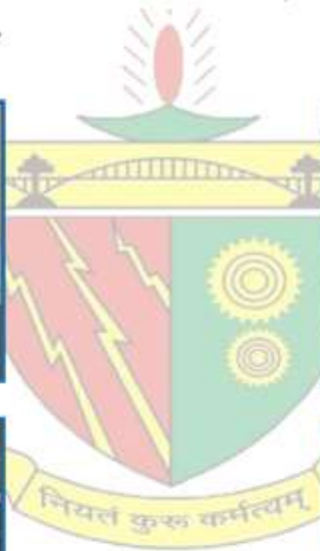
TEAM POTENTIA

PROF.MANI SHANKAR MATTA
DEPT. OF ELECTRICAL ENGINEERING

PROF. RP GUPTA
DEPT. OF ELECTRICAL ENGINEERING

KANISH DUBEY
ELECTRICAL ENGG (2K17)

ARYA GARG
ELECTRICAL ENGG (2K17)

VARUNAV SINGH
ELECTRICAL ENGG (2K18)

ANANYA KESARI
ELECTRICAL ENGG (2K18)

PRIYANKA PANDEY
ELECTRICAL ENGG (2K19)