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B.I.T Sindri, Dhanbad, Jharkhand

(Higher and Technical Education Department, Govt. of Jharkhand)

Potentia

DEPARTMENTAL NEWSLETTER

DEPARTMENT OF ELECTRICAL ENGINEERING

PATRON:

Dr. D.K. SINGH
DIRECTOR

CO-PATRON:

Dr. D.K. TANTI
HEAD, EE

4 TH EDITION

DECEMBER 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 a full-fledged Departmental Newsletter aims and strives to portray the 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.*

ELECTRICAL ENGINEERING SOCIETY BIT SINDRI

OBJECTIVES:

1. To promote Research and Project based Activities in the Department.
2. To develop cooperation among the students and faculty members of the Department.
3. To develop skills and enhance the knowledge set and awareness of students in the field of Electrical Engineering and Technology.
4. To develop leadership skill and to inculcate a sense of responsibility amongst the members of the society.
5. To strengthen the Alumni network of the Department.

EVENTS TO BE PERFORMED:

1. Research and Project based activities, Industrial Visits, Student Activity Report (e-Magazine).
2. Annual Techfest and Alumni Meet.
3. Guest/ Alumni Talks.
4. Workshops, Internship Arrangement, Webinars, Extempore, Discussions.
5. Cultural Activities which includes Teachers Day celebration, Freshers Welcome Program, Farewell Program.
6. Sports Activities for Students, Faculty Members and other Non-Teaching staff of the Deaprtment.
7. Experience sharing activities of Internship, VT etc.
8. Social Media Handling and Quarterly / Monthly Report.

ELECTRICAL ENGINEERING SOCIETY BIT SINDRI

TEAMS:

1. *Research and Project Advancement Team.*
2. *Designing and Technical Team.*
3. *Training and Development Team.*
4. *Alumni Interaction Team.*
5. *Event Coordination Team.*
6. *Editorial Team.*
7. *Sports and Cultural Team.*

TECHNICAL ARTICLE

MICROGRID – A New Energy Paradigm

Dr. Amit Kumar Choudhary, Asst. Prof., EE Dept.

Introduction

Most of the large power generation systems rely on conventional energy sources such as coal, natural gas and oil, each of which have a more or less negative impact on the environment. Furthermore, as long-distance, high-voltage transmission lines carry power to the customers from centralized generation sources, transmission losses are unavoidable. The increasing demand for clean, reliable and affordable electrical energy is changing the existing scenario for electricity generation. The realization of the concept of the microgrid has the potential to deliver an innovative, economic and environmentally friendly solution. One of the major aims of the microgrid is to combine the benefits of non-conventional/ renewable, low carbon generation technologies and high efficiency combined heat and power (CHP) systems.

The microgrid embodies the concept of a single organized power subsystem comprising a number of distributed generation (DG) systems, both renewable (such as photovoltaic, wind power, hydro and fuel-cell devices) and/or conventional generation (such as internal combustion engines, micro-turbines and diesel generators) and a cluster of loads. This means local consumers have the potential to meet some or all of their electricity needs through the generation and use of their own power sources, yet still be connected to the main electricity grid. At the same time, a microgrid can operate independently without connecting to the main distribution grid during islanding mode. This type of onsite energy generation and management can help address concerns over how to meet rising energy demands by both reducing demand and locally implementing and further integrating energy sources and storage near the end-user.

Microgrid Definition:

A number of microgrid definitions and functional classification schemes can be found in the literature. A broadly cited definition, developed for the U.S. Department of Energy by the Microgrid Exchange Group, an ad hoc group of research and deployment experts, reads as follows:
"A microgrid is a group of interconnected loads and distributed energy resources (DER) within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both grid-connected or island mode".

Main Characteristics of a Microgrid:

The defining characteristics of a microgrid are:

- *Geographically delimited or enclosed within clearly defined electrical boundaries Connected to the main utility grid at a point of common coupling (PCC)*
- *Can automatically make the transition to/from a synchronised grid connected mode to islanded mode and is compatible with system protection devices*
- *Has DERs, including renewables, fossil fuel based generators such as diesel generator sets, and/or integrated energy storage*
- *Can perform real-time switching among various generation and load sources to balance supply and demand quickly, manage power exchanges and participate in demand response*
- *Includes power and information exchanges between the microgrid and the main grid.*

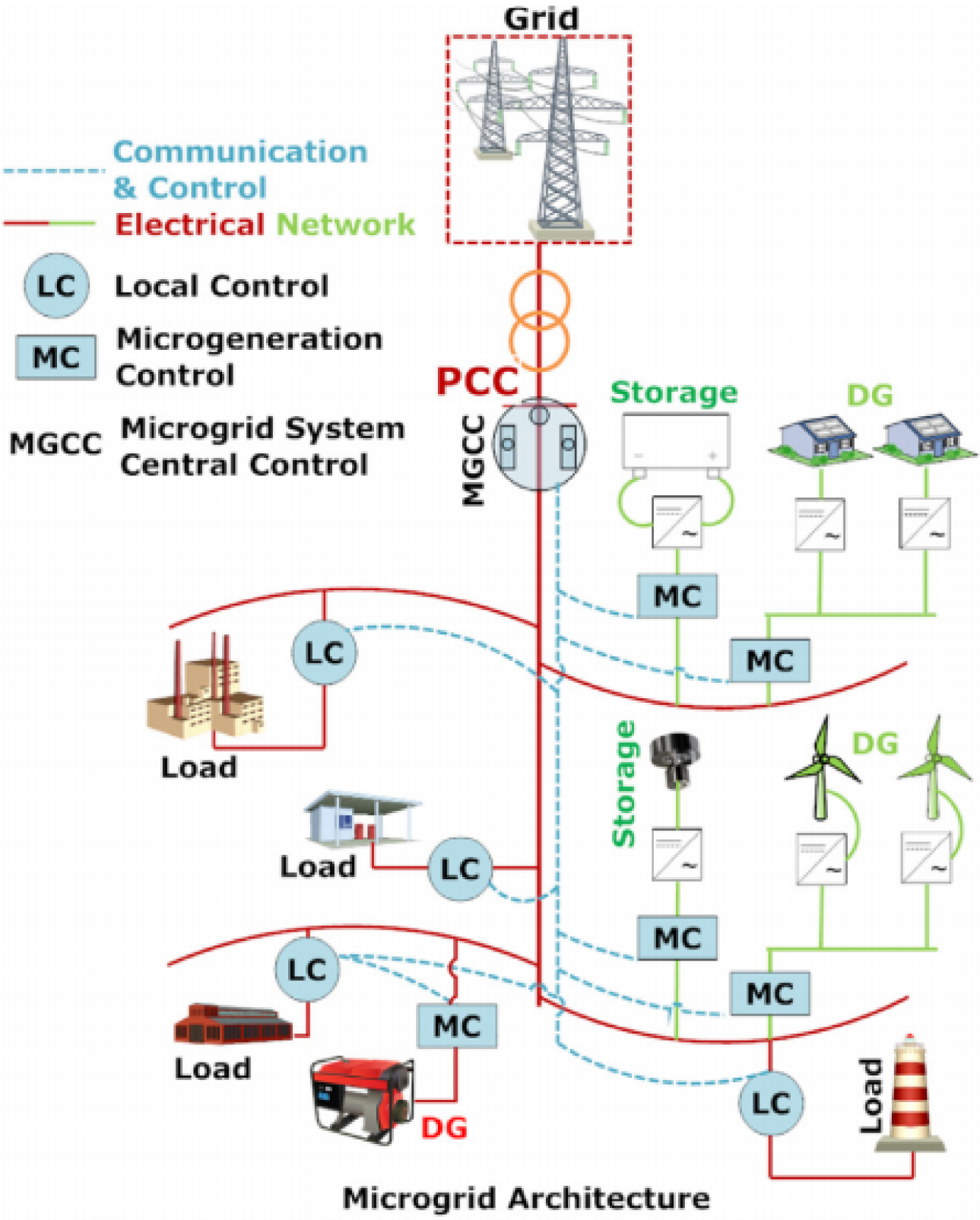
Microgrid Architecture:

The basic architecture of a microgrid system is presented in Fig. 1, which shows that a microgrid system generally consists of four parts: i) the distribution system, ii) the DG sources, iii) energy storage, iv) control and communications modules.

The classification of microgrid systems is based on the selection of the above components and the integration with the main electrical grid. With regard to grid integration, the microgrid system can be grid connected or isolated. Microgrid can be operated as AC or DC distribution networks. Based on DG sources, both AC and DC microgrid can further be divided into three types - fully conventional, partially conventional/renewable and fully renewable. Both AC and DC systems can have energy storage devices incorporated.

i)Distribution systems: *The main elements of a microgrid (DGs and loads) are interconnected with distribution lines. Microgrids can present both AC and DC distribution lines. Research on the DC microgrid system is currently gaining in relevance. As most DG sources generate DC power and the DC distribution system has less power quality problems.. AC microgrid systems are operated at line frequency. The DGs are connected in a common bus in the microgrid system. The generated DC current from the DGs are transformed to 50 Hz AC by a suitable power electronics converter and then transmitted to the load side.*

ii)Distributed generation resources (DG): *DG refers to a myriad of technologies that generate electricity at or near where it will be used, such as solar panels and CHP. DG may serve a single structure, such as a home or business, or it may be part of a microgrid. DGs can be based on either renewable or non-renewable resources. Renewable DGs include photovoltaic, wind power, hydro and fuel-cell devices. Internal combustion engines, micro-turbines and diesel generators constitute non-renewable DGs.*



Microgrid Architecture

iii) Storage devices: *Most microgrids will be connected to the grid than they would be in island mode. A microgrid would go into island mode whenever there is an outage on the main grid. No matter what the type of microgrid, energy storage is important to the success of the system. To store energy for future use, a microgrid owner needs an energy storage system. Should a cloud block the sun or the wind subsides, a microgrid can use its stored energy to keep the power on. When the main utility cannot supply power, a microgrid takes over seamlessly if it has an energy storage system. Batteries, flywheels and super-capacitors are some commonly used energy storage devices.*

iv) Communication systems: *For power control and protection, communication systems are vital. The communication systems commonly applicable in the microgrid systems are GSM, GPRS, 3 G, WiMax, PLC and ZigBee.*

Benefits of Microgrid:

i)Price Stability: *Microgrids are self-sufficient and do not rely on the grid, it is not affected by the price instability caused by fluctuations in crude oil and coal prices.*

ii)Efficiency: *Microgrid has the ability to operate, command and control the system assets – generation, storage, loads etc. through a smart microgrid controller that monitors and manages the entire system. This minimizes theft and since power is being consumed close to where it is generated, the system has less losses.*

iii)Boost electrical reliability:*Microgrids are built close to the customers they serve, keeping power flowing by temporarily disconnecting (also referred to as "islanding") from the central grid. This eases strain on the central grid during periods of peak demand. It's all about having backup power if the main grid goes down, which can help keep vital facilities running – especially when it comes to schools, hospitals and grocery stores.*

iv)Promote renewable energy: *Microgrids consist of a wide range of renewable DG sources, such as wind and solar, which help cut carbon emissions and reduce reliance on fossil fuels.*

v)Strengthen cybersecurity: *The distributed architecture of a microgrid makes it more resistant to cyberattacks. Should one generation source be attacked, the microgrid has other power sources to rely on.*

Conclusion:

A microgrid consists of almost all components of a larger grid – power generation, power storage and distribution to user loads. However, it is operated on a much smaller scale and is usually locally owned and operated. Microgrids provide the option to develop smart and small distribution systems that can be interconnected to one another to form a much larger distribution entity and, in turn behave like a smart grid in terms of efficiency and reliability. To conclude, microgrids hold the potential to significantly transform the power distribution segment by making it more resilient and aiding in expanding electrification coverage. However it is vital to ensure that microgrid installations are cost-effective and they operate within the desired voltage and frequency levels.

References:

[1] Adam Hirscha, Yael Paraga, Josep Guerrero, "Microgrids: A review of technologies, key drivers, and outstanding issues", Renewable and Sustainable Energy Reviews, 2018.

[2] Lubna Mariamn, Malabika Basu, Michael F. Conlon, "Microgrid: Architecture, policy and future trends", Renewable and Sustainable Energy Reviews, 2016.

[3] Smart grid handbook for regulators and policy makers, Indian Smart Grid Forum, 2017.

DISTINGUISHED ALUMNI

Shri Ram Naresh Singh
Chairman, Damodar Valley Corporation (DVC)

Shri R.N.Singh (57 years) holds a degree in Electrical Engineering from BIT SINDRI, Ranchi University (1980 batch). He started his professional career in the year 1986 with NTPC Limited and subsequently joined Power Grid Corporation of India in the year 1991.

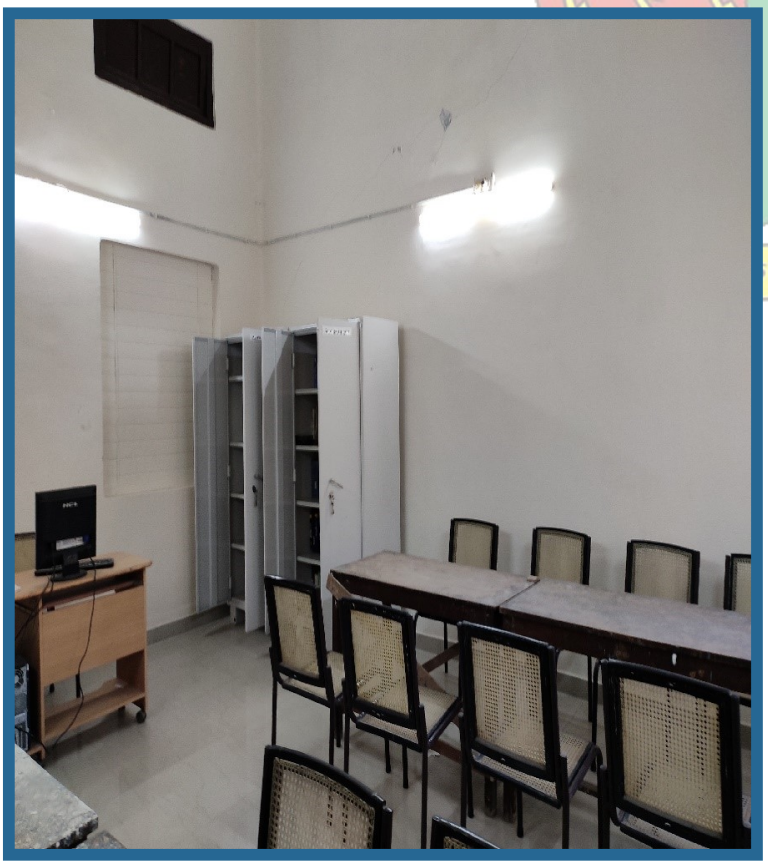
Shri Ram Naresh Singh has assumed the charge of Chairman, DVC from 15th January 2021. Prior to joining DVC, Shri Singh was the Executive Director (Engineering & FQA) at Power Grid Corporation of India Limited. He brings with him more than three decades of rich experience in multifarious areas across the value chain of the Indian power sector.

His experience lies in the areas of Testing & Commissioning, Operations and Maintenance, Projects execution and Management of EHV Transmission Systems & HVDC, Human Resource, Tariff Based Competitive Bidding(TBCB), Engineering – Sub-station, Transmission Line, Civil & FQA etc.

NEW FACILITIES CREATED IN THE DEPARTMENT

Departmental Library:

A new library has been established beside the conference hall of the department with an intention to supplement dissemination of information and enhancement of academic ambience. The library has a good collection of books. The library is also equipped with a PC and internet facility. It also has one copy each of all B.Tech projects reports and M.Tech. dissertations carried out in the department in recent years. The Library has a well-equipped facility for reading. Dr. Amit Kumar Choudhary, Assistant Professor, EE Department has been appointed as in-charge for the library.



NEW FACILITIES CREATED IN THE DEPARTMENT

Solar Photo Voltaic Power Plant:

A 100 kilo watt peak (kWp), grid connected roof top solar photo voltaic power plant with storage facility has be commissioned recently on the roof of the department. The plant is installed by Jharkhand Renewable Energy Development Agency (JREDA), Department of Energy, Govt. of Jharkhand for promoting use of renewable energy sources in the state.

STUDENT INTERNSHIP
(BATCH 2016-2020)

Sl. No	ROLL NO.	NAME	COMPANY	DURATION (in weeks)
1.	1601001	Abhishek Chowdhury	Ajivika-finance-limited	4
2.	1601003	Abhishek kumar	Nuclear Power Corporation of India Limited (NPCIL), Mumbai	4
3.	1601016	Animesh Prakash	Tata Steel	4
4.	1601027	Bablu Besra	Tata Steel	8
5.	1601039	Jaya	Tata Steel	8
6.	1601044	Kajol kumari	Tata Steel	4
7.	1601061	Parthsarthi	Tata Steel Processing And Distribution Limited	7
8.	1601063	Pratik Raj	Tata Steel Processing And Distribution Limited	8
9.	1601073	Ramray Murmu	BHEL , Bangalore	4
10.	1601080	Riya Raj	Tata Steel	8
11.	1601084	Sandhya Rani	Tata Steel	4
12.	1601089	Saurav Shubham	IIEST Shibpur	4
13.	1601096	Suman Dubey	Tata Steel	8
14.	1701012D	Neha Nidhi Kujur	Tata Steel	4
15.	1701017D	Seema Mondal	Tata Steel	4

STUDENT PLACEMENT
(BATCH 2016-2020)

Sl. No.	ROLL NO.	NAME	COMPANY
1.	1601001	Abhishek Chowdhury	VEDANTU
2.	1601003	Abhishek kumar	CAMFILL
3.	1601004	Abhishek Ranjan Tiwari	TATA POWER
4.	1601005	Adarsh Jha	COGNIZANT
5.	1601005	Adarsh Jha	VEDANTU
6.	1601008	Akash Kumar	TATA POWER
7.	1601014	Aniket Kumar Singh	ABG
8.	1601015	Aniket SIngh	ABG
9.	1601017	Ankit Hanny	BYJUS
10.	1601021	Archana Kumari	ADANI COAL AND MINING
11.	1601022	Arif Hussain	KK GROUP OF COLLEGES
12.	1601023	Ashish Gupta	ABG
13.	1601024	Ashish Modi	4IITEENS
14.	1601026	Ashwani Kumar	KK GROUP OF COLLEGES
15.	1601035	Gaurav Kumar	TCS NINJA

Sl. No.	ROLL NO.	NAME	COMPANY
16.	1601035	Gaurav Kumar	DHATU ONLINE
17.	1601039	JAYA	TATA STEEL
18.	1601041	JITENDRA KUMAR SAW	TATA POWER
19.	1601042	Jyoti Kumari	ABG
20.	1601046	Kushal Prasad	TATA POWER
21.	1601047	Kuwarjeet Khandelwal	TCS NINJA
22.	1601047	Kuwarjeet Khandelwal	JSW
23.	1601050	Manish Gourav	ACC
24.	1601056	Nikhil Kumar SInha	KK GROUP OF COLLEGES
25.	1601061	Parthsarthi	JSL
26.	1601063	Pratik Raj	ABG
27.	1601068	Rahul Anand	KK GROUP OF COLLEGES
28.	1601070	Raj Kamal Ravi	REPOS
29.	1601076	Ravi Kumar Singh	TATA POWER
30.	1601077	Ritesh Anand	PINCLICKS

Sl. No.	ROLL NO.	NAME	COMPANY
31.	1601079	Riya Mandal	JSL
32.	1601080	Riya Raj	TATA STEEL
33.	1601082	Satyam Ramani	TCS CODEVITA
34.	1601087	Saurav Barnwal	TATA POWER
35.	1601088	Saurav Shubham	VEDANTU
36.	1601089	Shivam	JSW
37.	1601090	Sonu Kumar	VEDANTU
38.	1601094	Sourav Paul	TCS NINJA
39.	1601094	Sourav Paul	KEERTI TECHNOLOGIES
40.	1601094	Sourav Paul	SCHLUMBERGER
41.	1601095	Suman Dubey	TATA POWER
42.	1601096	Sunny Kumar Dubey	ANALYTICS QUOTIENT
43.	1601097	Suraj Kumar	ANALYTICS QUOTIENT
44.	1601098	Suraj Pandey	HUL
45.	1601099	Sweta Tiwary	ADANI COAL AND MINING

Sl. No	ROLL NO.	NAME	COMPANY
46.	1601100	Vaibhav Kumar Sharma	VEDANTU
47.	1601101	Vaibhav Kumar Sharma	KK GROUP OF COLLEGES
48.	1601102	Vaibhav Pandey	ADANI COAL AND MINING
49.	1601103	Aman Kumar Saw	TCS NINJA
50.	1601104	Rohit Kumar Verma	PINCLICKS
51.	1701001D	Vikas Kumar	JSL
52.	1701015D	Suryakat Sharma	AMIT METTALIC
53.	1701021D	Rohit Kumar Rajak	AMIT METTALIC

STUDENT ACHIEVEMENTS

Pratik Raj

A student from the Electrical Engineering department (Batch 2016-20), B.I.T. Sindri who brought laurels to the institute by winning CFI ELP Quiz.

STUDENT ACHIEVEMENTS

Simran Priyadarshini

On 13th October, 2020 the finale of Tata Steel's prestigious 'Women Of Mettle' competition was held. The whole competition was organised through online medium which highlighted TATA Steel's commitment towards all the stakeholders. And Simran Priyadarshini, a third-year undergraduate student of Electrical Engineering from BIT SINDRI secured 2nd runner up position. This year the competition took place online and the participants had to work with their mentors in online mode. The final presentation and Question /Answer round was also held via online mode. The selection brings in a great pride for the institute and she will be entitled to scholarship of amount 2 lakhs over the duration of the course with the opportunity to join TATA Steel as Management Intern and subsequently convert it to a PPO. They will also be invited to attend all paid technical conferences and a summer internship.

STUDENT PUBLICATIONS

[1] Nikhil Kumar Sinha (1601056)

An intelligent EGWO-SCA-CS algorithm for PSS parameter tuning under system uncertainties", International Journal of Intelligent Systems, 2020.

[2] Nikhil Kumar Sinha (1601056)

Amended GWO approach based multi-machine power system stability enhancement", ISA Transactions, 2020.

[3] Jitendra Kumar Saw (1601041)

Controller parameter tuning of a single machine infinite bus system with static synchronous compensator using antlion optimization algorithm for the power system stability improvement", Advanced Control for Applications: Engg and Industrial Systems, 2020.

[4] Nikhil Kumar Sinha (1601056)

Optimal placement of shunt capacitor with VCPI to improve voltage profile using Mi power", IOP Conference Series: Materials Science and Engineering, Volume 981, International Conference on Recent Advancements in Engineering and Management (ICRAEM-2020), Warangal, India, 2020.

Note:
Publications [1], [2] & [3] are guided and co-authored by Mr. Ramesh Devarapalli. Publication [4] is guided and co-authored by Dr. U. Prasad and Mr. Ramesh Devrapalli.

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)