बीo आईo टीo सिन्दरी, धनबाद, झारखण्ड

B.I.T. SINDRI, DHANBAD, JHARKHAND

(Department of Higher, Technical Education & Skill Development)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ELECTRO-VISION 2020

Department's Official Publication

Stay Inspired

Start where you are, use what you have, do what you can.

FIRST EDITION

From the Director's Desk

Coming together is a beginning, keeping together is progress, working together is a success.

I am vainglorious to know about **"ELECTRO-VISION 2020"**, the departmental newsletter of Department of Electronics & Communication Engineering. This newsletter reflects the unbreakable team work of the department towards the growth of the institute.

The Department of Electronics & Communication Engineering was established in 1957. It is extremely callous to provide valuable resource for industry and society with value-based education which justifies its vision statement.

It has well equipped laboratories required for undergraduate as well as postgraduate programs. Moreover, it establishes new laboratories as per the need of recent advancements in technologies and also upgrades its laboratories on regular basis to provide better facility to its students. In addition to this, the department organizes workshops and training programs for not only the students but the faculties too. Recently the department organized an international symposium on 5G and beyond for rural upliftment, which has left a golden impression on the global platform of engineering and technology. Due to dedicated effort towards the future of its students and the institute, the department has given many legendary alumnae working in different industries and academia throughout the globe.

With this, I would like to congratulate the whole team of Electronics & Communication Engineering Department including Faculty Members, Non-Teaching Staffs and Students for publishing the Newsletter and wish for the bright future ahead.

Prof. (Dr.) D.K. Singh
Director, BIT Sindri

From the HOD's Desk

True happiness comes from joy of deeds well done, the zest of creating new things. It gives me immense pleasure to share our department newsletter "**ELECTRO-VISION 2020**" etching every achievements and activities held in last three academic sessions 2017-2020. The newsletter aims to bring into view about various proceeding, functions and happenings in the department.

The department offers a range of innovatively designed course structure in four year of B. Tech program which are constantly updated to meet the changing requirement of the industry and the needs of major stakeholders as well. We believe that our graduates have been well established in their profession and have consistently gone beyond the expectations of the corporate world.

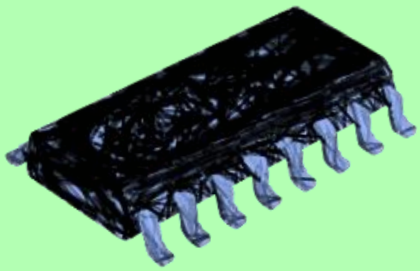
During study at the department, the students are encouraged to get hands-on experience, internship projects with reputed organizations. In their curriculum, they are encouraged to apply their mind and theoretical knowledge in everything they do, from a small laboratory project to a major project in the final year. These projects facilitate them to realize the importance of working in a group and also help them to realize the better aspects and importance of teamwork. Moreover, it also makes the students to understand the "Why", investigate the "Why not" and think through the "How else" which makes the students an Inventor or Pioneer. ***Educating the mind without educating the heart is no education at all.*** The curriculum is taught by a distinguished expert faculty combining academic excellence and real-world experience with dedication and commitment. The department carries out research activities in diverse domains including VLSI, Communication, Radar, Signal Processing, IoT, Control & Robotics etc. We feel proud to our faculty members for their dedication in quality teaching and research.

I congratulate all the faculties especially, Dr. Santosh Kumar Verma, and Mr. Jagvir Singh Verma and their student's team Mr. Shubham Raj and Mr. Gourav Kumar, who have taken initiative for producing this newsletter.

I welcome you to be a part of our journey towards being a world-class centre of excellence in education, training, and research.

Prof. Imteyaz Ahmad
HOD, ECE

INSIDE

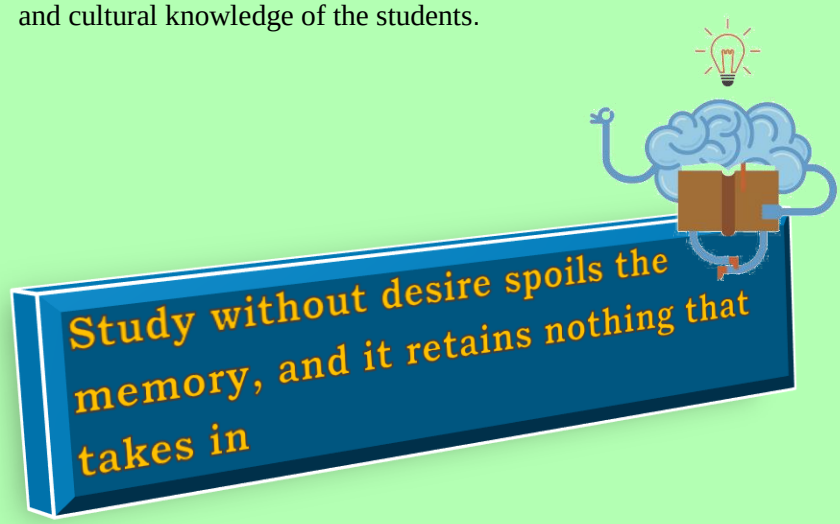


ABOUT US

The department was established in the year 1957 with an intake of 30 students. At present department offers a four-year B. Tech degree course with an intake of 56 students and a lateral entry of 12 students. The department has excellent infrastructure and well-equipped laboratories which includes three newly developed advanced labs helping students to groom themselves to the cutting-edge technology. Department also runs a Centre of Excellence Lab in Collaboration with Siemens & Design Tech to provide hands on training on PLC and SCADA not only for department students but also for the student of entire Jharkhand. Department possess dynamic and well-qualified faculty members with expertise in various domains of electronics and communication engineering.

The vision of the department is to be recognized as a center of academic excellence for globally competent, professionally, and socially responsible Electronics & Communication engineers and entrepreneurs. Department organize FDPs and workshops for teaching and non-teaching staff as well as student to give exposure and knowledge in current domain. In the current year the department organized FDP om 5G communication, wireless and mobile communication, DSP and sensors, antenna trends, VLSI chip design, natural chip processing, and IOT. Recently a two day “International Symposium on 5G & Beyond for Rural Upliftment" was jointly organized by the Department of Electronics & Communication Engineering, BIT Sindri, and Department of Electronics Engineering, IIT(ISM) Dhanbad, Jharkhand. The aspiration of the Symposium was to provide a platform for exploring and exchanging ideas among the networked people. It explains how combination of 5G, artificial intelligence, smart platforms and the Internet of Things can allow for embedding artificial intelligence into 5G communication systems for the smarter use of network-generated data, the automated enabling of network operators and service providers to adapt to changes in traffic patterns, security risks, and user behavior and thus paving the way towards safe and reliable next-generation wireless ecosystems that go beyond the urban area to open the doors to equality in access to knowledge and information technology into the rural regions. In this assessment year, three faculty members of the department has awarded the Ph.D. degree whether the other two faculties have enrolled for Ph.D. program at IIT(ISM) Dhanbad. Moreover, it has also grabbed a consultancy project funded by TEQIP III with a budget of rupee 3,86,000/-.

Students of our department are encouraged to participate and organize various community and development programs through clubs, technical events and social & cultural activities. These activities provide additional exposure to the current development along with enhancing technical, social and cultural knowledge of the students.



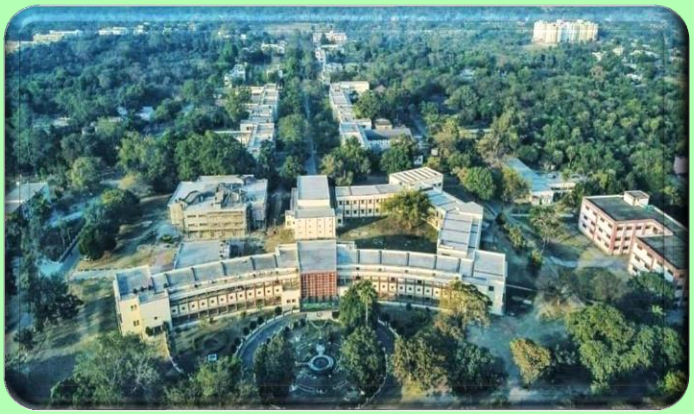
VISION & MISSION STATEMENTS

INSTITUTE VISION

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

INSTITUTE MISSION

- To offer the state of the art Undergraduate, Postgraduate and Doctoral Programs.
- To generate the new knowledge by quality research.
- To undertake the collaborative projects with industries and society.
- To develop human intellectual capacity with its full potential.
- To solve the problems of society through innovation in technology.



DEPARTMENT VISION

- To be recognized as a center of academic excellence for globally competent, professionally and socially responsible Electronics & Communication engineers and entrepreneurs.

DEPARTMENT MISSION

- To prepare the students for a successful career by blending theoretical knowledge and practical skills with employability and entrepreneurial traits by offering UG, PG and Doctoral program in different domains of Electronics & Communication Engineering.
- To establish state of art laboratory and research facilities for academic excellence and promotion of quality teaching as well as learning process.
- To inculcate team spirit and leadership qualities and produce socially acceptable engineers with ethical and human values.
- To contribute to the country and the society at large by enhancing the interaction between academia and industries for addressing the need of the mankind.

Faculties Interaction

Dr. Imteyaz Ahmad received his master's degree from VJTI, Matunga. Mumbai-19 under Mumbai University, Mumbai, India and Ph.D. degree from BIT Sindri under Vinoba Bhave University, Hazaribagh, India. He is currently an Associate Professor with the department of Electronics and Communication Engineering, BIT Sindri, Dhanbad, India. His current research interests include Bio-instrumentation and Bio-medical signal processing.

Dr. Madan Gopal Tiary received his B.Sc. degree in Physics Honors from R. K. Mission Residential College, Narendrapur, Calcutta University for which he was awarded National Scholarship, B.Tech and M.Tech degree both from Institute of RadioPhysics and Electronics, Calcutta University and PhD degree from Jadavpur University, Jadavpur, West Bengal, India. He is presently serving B.I.T Sindri, Dhanbad, Jharkhand as Professor in the Department of Electronics and Communication Engineering and Sr. Administrative Officer, B.I.T Sindri. He previously served Asansol Engineering College, Asansol, West Bengal, India in various capacities like Principal, Dean and Head of the Department, ECE etc. He has chaired many seminar, workshop, and conferences. He is also associated with Institution of Engineers (India) Asansol Local Centre where he was previously in the capacity of the Honorary Secretary. His research interest is in the field of Microwave Engineering which includes Microstrip Antenna, Microstrip line etc. He has published more than 25 research papers in International Journals as well as International and national Conferences.

Dr. Amar Prakash Sinha is involved in teaching and research since 2002, received the M.Tech in Microelectronics degree from Panjab University, Chandigarh, and the Ph.D. degree from IIT (ISM), Dhanbad, India. He is currently Associate Professor in Department of ECE and Nodal Officer, TEQIP, BIT Sindri, Dhanbad, India. His current research interests include Semiconductor Devices, Nanoelectronics, VLSI, IoT and Quantum Computation.

Dr. Arvind Kumar is involved in teaching and research since 2003. He received his master from BIT Mersa, Ranchi and Ph.D from BIT Sindri, VBU Hazaribag, in the field of microwave engineering. He has authored more than 15 research papers in different journals and conferences. He is member of IET. He is associated with the department since 16th September, 2006 and having more than 17 years of teaching experience. Moreover, he also has organized one international Symposium and many National level FDP program in the department.

Mrs. Sabita Nayak received her masters degree from BIT Sindri, Dhanbad under Vinoba Bhave University, Hazaribagh. She is associated with the department from September 2006. She teaches Electronics And Instrumentation and Digital Electronics to UG students. Her current research interest includes Smart Grid for Optimal Active Power and Secure Data Transmission using IoT in Smart Grid.

Mrs. Sangeeta Kumari received her B.Sc Engineering degree from Maulana Azad College of Engineering and Technology, Patna, Bihar, India in the year 2001 and M.Tech from B.I.T Sindri, Vinoba Bhave University Jharkhand ,India in the year 2009 .She had worked as an adjunct faculty at NIFFT Hatia Ranchi. She teaches Microprocessor, Digital Electronics, Basic Electronics, Mobile Communication, RTES, C++, Microwave Engineering and Advanced EMF to undergraduate students. She is Laboratory In charge of Microwave Engineering Lab.

Dr. Santosh Kumar Verma received his B.Tech degree from Ideal Institute of Technology, Ghaziabad, U.P., India in 2008 and M.Tech and Ph.D. degree from IIT(BHU), Varanasi, U.P., India in 2011 and 2018 respectively. He joined the Department as Assistant Professor on 15th March, 2018. He bears total 5 years of teaching experience. He teaches Linear Control System, Digital logic Design, Microprocessor and Interfacing, and Wireless Communication to under graduate students. He has organized one International Symposium and many Faculty Development Programs in the department. His research interest includes Model order reduction, approximation of fractional order systems, Design and Optimization of fractional order controllers. He has published many research papers in International Journals as well as International Conferences.

Mr. Jagveer Singh Verma is current working as Assistant Professor in the Department of Electronics and Communication Engineering under TEQIP Phase III project. He bears a total teaching, industrial and research experience of 15 years. He had completed his Bachelor's degree from Nagpur University and Master's degree from Amravati University. Currently he is pursuing his Ph.D. from IIT (ISM) Dhanbad. During his Masters he had achieved the best M. Tech Project award among SAARC countries in VLSI Cadence Design Contest. His research interest includes Analog and Mixed signal design. He had published around 20 research papers in International journals and conferences. He is associated with BIT SINDRI since 4th Jan 2018.

MD Hanif Ali completed his B.Tech from JNTU Kakinada in 2012 and M.Tech in VLSI Design from Dept. of Radio Physics and Electronics, Calcutta University in 2017. He teaches many U.G. level subjects like: VLSI Design, Basic Electronics, Analog electronics, Electronics & Instrumentation. His research interest includes Nano-Electronics & Semiconductor Devices, Optoelectronics. He is associated with BIT SINDRI since 16th January, 2018. He has participated in many Faculty Development Programmes at IIT Kharagpur, NIT Patna and within institute itself.

Mrs. Pritika Singh received her B.Tech degree from Institute of Engineering Jiwaji University, Gwalior, M.P. India in 2013. She did her M.Tech in Communication from NIT Agartala in year 2015. She is currently pursuing Ph.D from IIT ISM Dhanbad in area photonic integrated circuit. She has teaching experience of 5 years. She served as assistant professor in DAVIET (Daltonganj), LNCT (Bhopal) and joined department of ECE BIT Sindri as an Assistant Professor on 4th January, 2018. She has participated in many Faculty Development Programmes at IIT Kharagpur, NIT Patna and within institute itself. She teaches Communication System, Digital Electronics, Signals & Systems, and Electronics & Instrumentation.

Ms. Kritika Awasthi joined Department of ECE as Assistant Professor on 5th Jan 2018. She received her M. Tech in Digital Systems from MNNIT Allahabad, and currently pursuing the Ph.D. degree from IIT (ISM), Dhanbad, India. She teaches Digital Electronics, Digital System Design, Optical Fiber Communication, and Basic Electronics to undergraduate students. Her current research interests include Microwave and Silicon Photonics. Apart from that she is also working as Project Investigator in one of the CRS projects sanctioned by MHRD-NPIU Unit.

OFFICE STAFF

MD MOFIZ AHMAD
LAB INSTRUCTOR

Mr. NARESH KUMAR
LAB INSTRUCTOR

Mr. VIVEK DEHRI
LAB INSTRUCTOR

Mr. TUFANI
OFFICE ASSISTANT

Mr. SHAMIM ANSHARI
SUPPORTING STAFF

Faculty's Contribution and Achievements

Sponsored Project

Sl. No.	Name of PI(s)	Title of Project	Sponsoring Authority	Sponsorship Amount
1	Ms. Kritika Awasthi, Dr. Santosh Kumar Verma	Development of Thermoelectric Generator integrated Charcoal Stove	TEQIP-III	3,86,000/-

Consultancy

Sl. No.	Detail of Consultancy	Amount
1	One-week FDP on 5G-Communication	10,000/-
2	One-week FDP on Wireless and Mobile Communication	10,000/
3	One-week FDP on DSP and Sensors	10,000/
4	One-week FDP on Antenna Trends	10,000/
5	One-week FDP on VLSI Chip Design Hands on Using open source EDA	10,000/
6	One-week FDP on Natural Language Processing	10,000/
7	One-week FDP on ICT Tools for Teaching, Learning process & Institutes	10,000/

Industrial Visits

Sl. No.	Name of Industry Visited	Date of visit	Number of Students Present	Name of Professor In-charge visited
1	BSL BOKARO	11.08.2018	60	Dr. Imteyaz Ahmed, Kritika Awasthi, Jagveer S. Verma

SWAYAM / NPTEL / MOOCs course participated by Faculty and students.

Sl. No.	Name of Course	Date	No. of Faculties and students participated
1	Digital Transformation in Teaching Learning Process, SWAYAM	06-04-2020	10
2	Signals and Systems, NPTEL	27-01-2020	2
3	Integrated circuits MOSFETS, OP-AMP and their fabrication, NPTEL	20-04-2020	1
4	Analog Electronic Circuits, NPTEL	02-02-2020	1
5	Analog Communication, NPTEL	02-02-2020	2
6	IOT, NPTEL	02-02-2020	1
7	Data Structures and Algorithms (Coursera)	02-01-2020	1
8	DTITLP		1
9	JAVA		1
10	Quantum Computation		1

FACULTY PUBLICATIONS

I. Publication in National/International Journals

Sl. No.	Author(s)	Name of Journal	Title/Topic of the Paper	Year of Publication
1.	**Dr. Imteyaz Ahmad**	International Journal of Electrical Engineering and Technology	QRS Detection for Heart Rate Monitoring	2020
2.	**Dr. Imteyaz Ahmad**	International Journal of Computer Applications	A Time Domain Method for Calculation of Heart Rate Variability	2020
3.	**Dr. Imteyaz Ahmad**	International Journal of Research in Engineering, IT and Social Sciences	A review of QRS detection by differentiation method	2020
4.	**Dr. M. G. Tiary**	International Journal of Microwave Optical Technology Letter, Wiley	UWB Mono Pole Antenna with Dual Band Notched Characteristics	2020
5.	**Dr. M. G. Tiary**	International Journal of RF and Microwave Computer Aided Engineering, Wiley	A Multiband Antenna using Plus Shaped Fractal like Element and Stepped Ground Plane	2020
6.	**Dr. M. G. Tiary**	International Journal of RF and Microwave Computer Aided Engineering, Wiley	An UWB Trapezoidal Ring Fractal Mono Pole Antenna with Dual Notch Characteristics	2019
7.	**Dr. S. K. Verma**	Recent Advances in Electrical & Electronic Engineering	Design and Optimization of Fractional Order $PI^{\lambda}D^{\mu}$ Controller using Grey Wolf Optimizer for Automatic Voltage Regulator system	2018

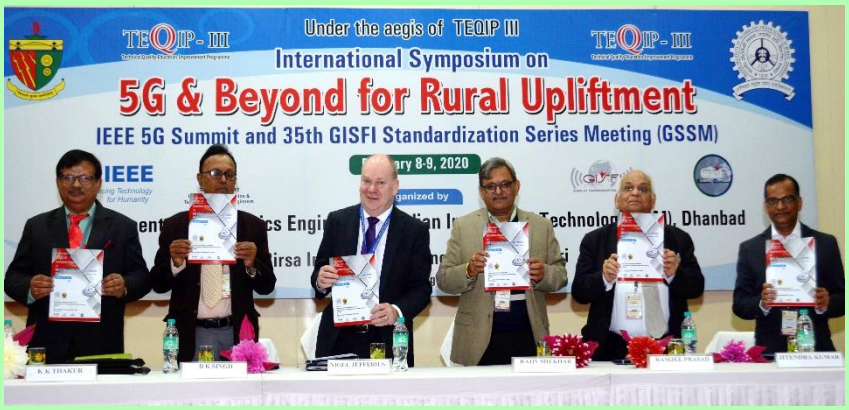
II. Publication in National/International Conferences

Sl. No.	Author(s)	Name of Conference	Title/Topic of the Paper	Year of Publication
1.	**Pritika Singh**	International Symposium on 5G and Beyond for Rural Upliftment with 35th GSSM meeting	Electrical Impedance Analysis on Orange During Storage and Ripening	2020
2.	**Kritika Awasthi**	International Symposium on 5G and Beyond for Rural Upliftment with 35th GSSM meeting	A Comparative Analysis for Realization of Limit-cycle free 2D Digital Filters with external disturbance	2020
3.	**Dr. M. G. Tiary**	APS URSI International Conference	A CPW Fed Trapezoidal Fractal Patch Antenna for UWB Application	2018
4.	**Dr. S. K. Verma**	SICE-2018, Tokyo, Japan	Optimized Fractional order controller for a Fractional Order Spherical Tank System using Grey Wolf Optimizer	2018

SYMPOSIUM/CONFERENCE

An "**International Symposium on 5G & Beyond for Rural Upliftment"** was organized by **Department of Electronics & Communication Engineering, BIT Sindri and Department of Electronics Engineering, IIT(ISM) Dhanbad** under twinning activity on 8th and 9th February, 2020.

The key agenda of the symposium was to explore the ideas of 5G communication system for smarter and safe use of network-generated data and to provide reliable next-generation wireless ecosystems. Moreover, the event will also provide the platform for exploring and exchanging the ideas among the networked people. Additionally, the Symposium would provide valuable, useful and informative ideas about 5G and beyond to the participant students, researchers and other experts. A wide range of keynote speeches speakers from the industry and Academia (mostly from IITs, NITs across the country and other reputed institutes across the globe) delivered their talk to discuss various developments and deliberate on emerging challenges pertinent to Digitalization and communication development in India as well as world. Around 40 research papers from different areas like **IoT, 5G, light communication, Wireless sensing network, cryptography, data analysis for eHealth** etc. were successfully presented in the symposium.



Workshops/Seminars/FDPs Conducted

Sl.No.	Name of Event	Date	Name of Co-Ordinators	No. of Participants
1.	5G-Communication	11th -15th June, 2018	Dr. Arvind Kumar Mr. Jagveer Singh Verma	14
2.	Wireless and Mobile Communication	3rd - 7th Dec., 2018	Dr. Arvind Kumar, Dr. S. K. Verma	20
3.	DSP and Sensors	10th - 14th Dec., 2018	Dr. Imteyaz Ahmad, Mr. Hanif Ali	23
4.	Antenna Trends	1st -5th July, 2019.	Dr. Arvind Kumar Dr. S. K. Verma	28
5.	VLSI Chip Design Hands on Using open source EDA	8th -12th July, 2019	Dr. A. P. Sinha Mr. Jagveer Singh Verma	24
6.	Natural Language Processing	6th to 10th January, 2020	Dr. Imteyaz Ahmad Mr. Bhavesh Kumar	26
7.	ICT Tools for Teaching, Learning process & Institutes	13th to 17th January, 2020	Dr. Arvind Kumar Dr. Santosh Kumar Verma	40
8.	Internet of Things	14th -18th October, 2019	Dr. A. P. Sinha Dr. Santosh Kumar Verma	32
9.	Advanced Industrial Automation using PLC & SCADA	1st -5th November, 2018	Dr. Arvind Kumar Dr. Santosh Kumar Verma	30
10.	Understanding MS Excel for Office Automation	18th -22nd December, 2018	Dr. Santosh Kumar Verma	45

FDP on "**Antenna Trends**"

FDP on "**Wireless and Mobile Comm.**"

FDP on "**AI and Machine Learning**"

FDP on "**5G Communication**"

Guest Lectures/Invited Talks

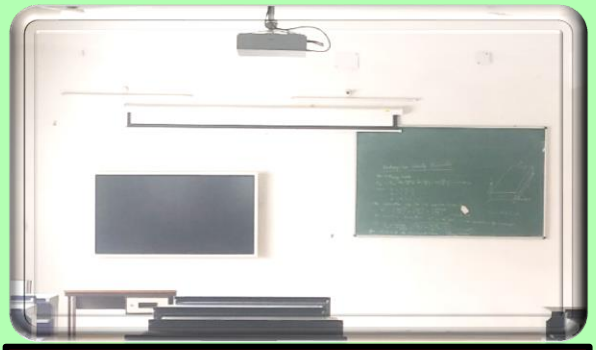
Sl. No.	Topic	Date &Time	Resource Person with designation
	Session 2019-20		
1.	Technical talk on VHDL & Digital circuit design	22/12/2019 2:00PM-4:00PM	Dr. Rajeev Ranjan, Assistant professor IIT(ISM) Dhanbad
2.	Technical talk on SIMD microprocessor for image processing	22/12/2019 2:00PM-4:00PM	Dr. Mrinal Sen, Assistant professor IIT(ISM) Dhanbad
3.	Technical Talk on non-thermal effects of microwave.	05/01/2019 2:00PM-4:00PM	Dr. Amitesh Kumar, Assistant Professor, IIT(ISM) Dhanbad
4.	Technical Talk on, Photonic Integration of hybrid silicon	05/01/2019 2:00PM-4:00PM	Dr. Manodipan Sahoo, Assistant professor, IIT(ISM) Dhanbad
5.	Technical Talk on applied algorithms for VLSI CAD.	22/01/2019 2:00PM-4:00PM	Prof. V. Kumar, Professor, Department of Electronics Engineering, ISMU
6.	Technical Talk on motivation for integrated services digital network.	22/01/2019 2:00PM-4:00PM	Er. Sanjeev Kumar, Sr. Manager, Ericson, Patna
	Session 2018-19		
1.	Technical Talk on, adiabatic technique for energy logic circuit design.	10/01/2018 2:00PM-4:00PM	Dr. RajeevRanjan, Assistant professor IIT(ISM) Dhanbad
2.	Technical Talk on non-thermal effects of microwave.	10/01/2018 2:00PM-4:00PM	Dr. Amitesh Kumar, Assistant Professor, IIT(ISM) Dhanbad
3.	Technical Talk on expanding applications of bending-loss-resistant fiber.	11/01/2018 2:00PM-4:00PM	Prof. Bibhas Sen, Dept. of CSE, NIT, Durgapur.
4.	Technical Talk on applied algorithms for VLSI CAD.	11/01/2018 2:00PM-4:00PM	Prof. V. Kumar, Professor, Department of Electronics Engineering, ISMU
5.	Technical talk on Cognitive radio networks	23/01/2018 2:00PM-4:00PM	Er. Sanjeev Kumar, Sr. Manager, Ericson, Patna
6.	A workshop was organized by EDC to make students familiar with the various skills for the development of startup cell	15-04-2018 2:00PM-4:00PM	Mr. Harendra Singh, CEO Asarfi Hospital Dhanbad

CLASSROOM

The least of the work of learning is done in the classroom. As it is rightly said "Every great journey begins in a classroom", the classrooms of our department have also witnessed a great deal of successful beginnings. From the days when blackboard and long desks were used in a classroom till today when smart and digital learning is on its peak our classrooms have changed themselves with changing time. With the changing technologies our classrooms are now well furnished with standard desks, white board, green boards, projectors, smart boards and LED screens. These classrooms provide a great environment of learning with almost all the technologies required by a student to understand things better.

Classroom equipped with Digital and White Board

Classroom equipped with Projector and Digital Podium

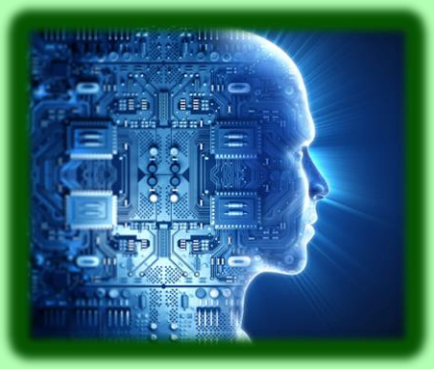


Classroom equipped with Projector and Digital Board

Tell me and I forget. Teach me and I remember. Involve me and I learn.
-Benjamin Franklin

LABORATORIES

Sl. No.	Name of Lab
1	Basic Electronics Lab
2	Analog Electronics Lab
3	Analog and Digital Communication Lab
4	Digital Electronics Lab
5	DSP Lab
6	Microwave Engineering Lab
7	Microprocessor and Microcontroller Lab
8	Tele Communication System Switching Lab
9	SCD lab
10	VLSI Lab
11	COA Lab
12	SIMULATION Lab
13	IoT Lab
14	CEDT/Project lab



NEW LABORATORIES

1. IoT Laboratory

Sl. No.	Item Specification	Quantity
1	Industrial IoT Educational Software	10
2	Systems Engineering Software: Professional Suite	5
3	Embedded System for Testing of code Evaluation Board 1	10
3.1	Evaluation Board 2	10
3.2	Low power wireless transceiver extension kit	10
3.3	SIM800C 2G- board USB based	10
3.4	4G-SIM7600 board	10
3.5	Evaluation Board 3	10
3.6	12-key capacitive touch numeric keypad with LED backlighting and proximity wake-up. 10 Nos	10
3.7	Evaluation Module 1	5
3.8	Evaluation Board 4	10
3.9	IoT Enabled ARM® Cortex®-MCU Connected Development Kit	2
4	Sensor Hub	10
4.1	Educational Booster Pack	10
4.2	Robotic Systems Learning Kit	5
5	Embedded Hardware for Data Acquisition and Control Application	10
6	IoT Application Board	10
6.1	Wi-Fi module	10
6.2	Wireless microcontroller Development kit	10
6.3	Wireless development tool in a watch	10
6.4	Starter kit	5
6.5	IOT Gateway Evaluation kit	10
6.6	Development Board 1	10
6.7	Development Board 2	10
7.1	Sensor & Transducer Bundle for IoT Projects	10
7.2	Mechatronics Accessory Kit	5
7.3	Basic Sensor & Actuator Package	5
7.4	Advance Sensor Package	1
8	Delivery, Installation and Training	
9	Student & Faculty Development Program	

2. Simulation Lab:

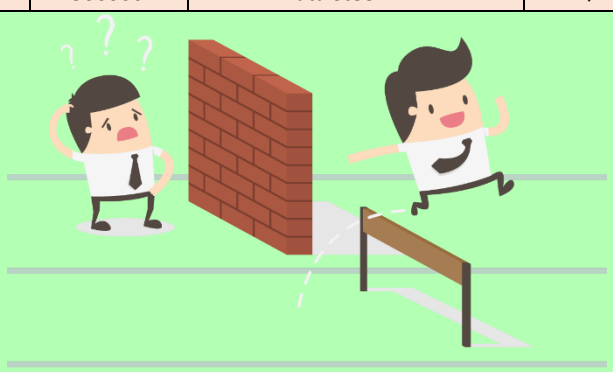
Equipped with 90 good configuration computers with high speed internet facility and necessary softwares required for smooth functioning of Laboratories. All major online trainings, placement activities and online tests are conducted here.

Student's Contribution & Achievements

Top Internships

An internship is the best way to gain work experience as a student. Internships gives students the valuable practical experience needed along with theoretical knowledge.

Sl. No.	Name of the Student	Roll no.	Name of the Company	Start Date of internship	End Date of internship
Batch 2k16					
1.	Abhishek Kumar	1606005	TATA Steel Limited	6 weeks (duration)	
2.	Anubhav Kumar Choudhary	1606013	State Bank of India	8 weeks (duration)	
3.	Hitesh Chandra	1606021	Chipmonk Technology	4 weeks (duration)	
4.	Nikita	1606032	MySun Solar Company	4 weeks (duration)	
Batch 2k15					
1.	Shruti Shubhangee	1506038	Tata Steel, Jamshedpur	06-12-18	07-10-18
2.	Aman Kumar Sah	1506005	DRDO ASL, Hyderabad	6/18/2018	7/13/18
3.	Sushmit Anshu Kullu	1506048	SAIL, Rourkela	06-05-17	07-04-17
4.	Badal Kumar Sahoo	1506014	Tubes Division Tata STEEL Jamshedpur	06-12-18	7/24/18
5.	Suman Kumari	1506045	Tata Steel, Jamshedpur	06-04-18	7/27/2018
6.	Rohan Raj	1506034	DRDO, Hyderabad	6/18/2018	7/13/18
7.	Ashish Kumar	1506009	DMRC, Delhi	6/16/2017	7/30/17
8.	Kanhaiaya Kumar Modi	1506026	DRDO, Hyderabad	6/18/2018	7/13/2018
9.	Vikas Mahato	1606010D	Tata Steel Ltd. Jamshedpur	7/17/2018	08-07-18
Batch 2k14					
1.	Saroj Kispotta	1306036	HECL	03/06/16	11/07/16
2.	Duli Rani Majhi	1406014	Tata Steel LTD.	13/06/16	11/07/16
3.	Anita Besra	1406005	Tata Steel LTD.	06/06/17	04/07/17
4.	Sakshi	1406061	PGCIL	15/06/16	09/07/16
5.	Rashmi Kumari	1406001	Tata Steel LTD.	06/06/17	04/07/17
6.	Pragya Singh	1406055	Tata Steel LTD.	13/0616	11/07/16
7.	Shruti Kumari	1406016	Tata Steel LTD.	13/06/16	11/07/16
8.	Anita Kumari	1506010D	Tata Steel LTD.	06/06/16	27/06/16
9.	Anuja Toppo	1506002D	HECL	03/06/16	11/07/16
10.	Puja Kumari	1506006D	Tata Steel LTD.	06/06/17	4/07/17

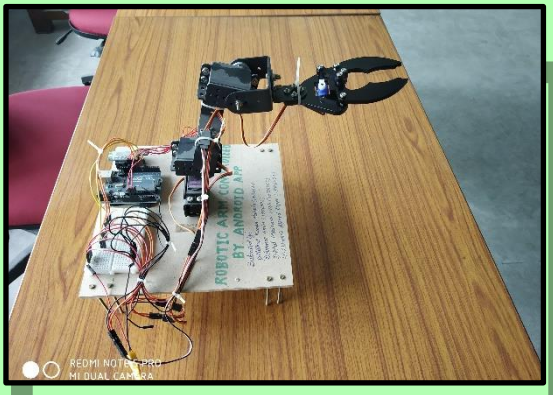


Best Projects

Smart Street Light

Smart Street Light

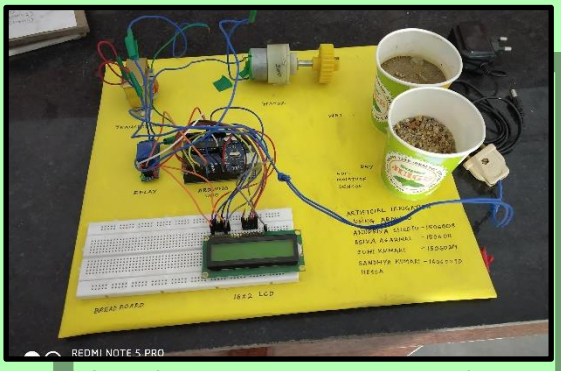
A model designed for making the street light smart which gets activated when vehicle/s on road is/are detected saving a reasonable amount of energy.



Robotic Arm using Android App

Robotic Arm controlled by Android App

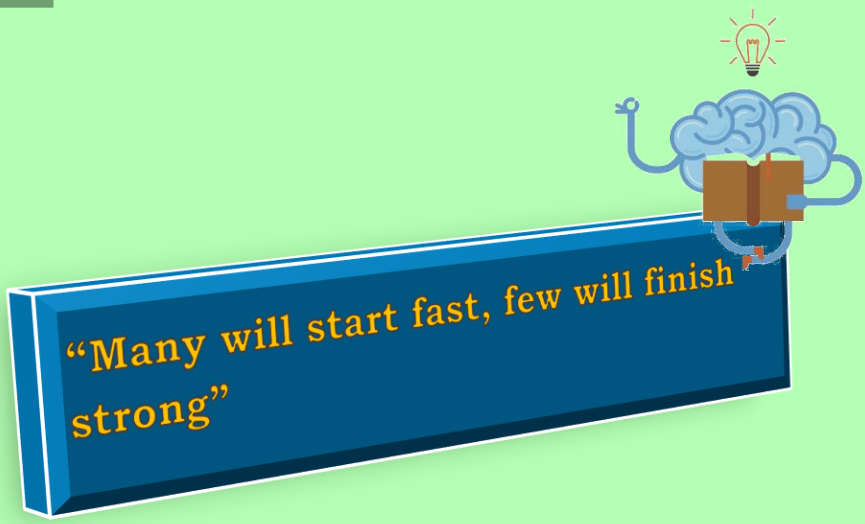
A model designed for automating the control of operation performed by the robotic arm. It provides remote control and has key industrial applications.



Artificial Irrigation using Arduino

Artificial Irrigation using Arduino

A model designed with aim to automate irrigation system in farming. A prototype having potential to do wonders if deployed on a large scale.



GATE SCORERS

BATCH: 2k16

NAME	Institute Roll No.	AIR	Score
SATYAM PRASAD	**1606047**	**315**	**770**
Shweta Gupta	1606050	6620	442
Puja Singh	1606039	7139	429
Komal Kumari Singh	1606023	7738	417
Ritesh Kumar Ranjan	1606042	9222	389
Aditya Kumar Kushwaha	1606009	10479	369
Adarsh Prakash	1606008	10763	365
Hammad	1606019	10763	365
Abhishek Kumar Singh	1606006	12236	344
Hitesh Kumar Chandra	1606021	12320(CS)	364

BATCH 2k15

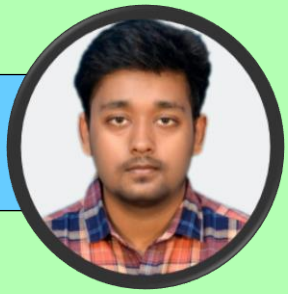
NAME	Institute Roll No.	Marks (/100)
JANVI KUMARI BARNWAL	**1506023**	**40.33**
Suman Kumari	1506045	32
Sourav Kumar	1506041	29
Rohan Raj	1506034	28
Jyoti Kumari	1506025	27.33
Indrajit Roy	1506022	27
Juhi Kumari	1506024	26
Shuvam	1506039	25.67
Piyush Kumar	1506033	25
Saheb Hembram	1506035	25
Shruti Shubhangee	1506038	24
Abhishek	1506001	22.33
Anupriya Sheetu	1506008	22
Abhishek Ekka	1506003	21.67
Kanhaiya Kumar Modi	1506026	21.67
Sudhanshu Kumar	1506044	21.67
Debdatta Das	1506016	21.33
Diksha Jha	1506018	21
Mithun Kumar Mahato	1506029	20
Vandna Kumari	1506056	19.33
Ashish Kumar	1506009	19.33
Sushmit Anshu Kullu	1506048	18.67

A horse never runs so fast as when he has other horses to catch up and outpace

BATCH 2k14

NAME	Institute Roll No.	Marks (/100)
ABHISHEK KUMAR DUBEY	**1406053**	**34.67**
Amit Kumar	1406054	29
Shubham Sharma	1406057	26
Swarnika Shruti	1406045	25

Special Achievements



SATYAM PRASAD (Roll No. 1606047)

Secured AIR **315** in **GATE 2020**

PRIYA CHANDRA (Batch 2k16)

Grabbed paid internship for 8 weeks in Women of Mettle Season 2 by TATA Steel

HITESH CHANDRA (Batch 2k16)

Runner up in Smart India Hackathon, 2019

ASHWIN RAJ (Batch 2k17)

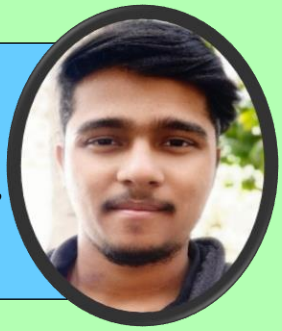
Presented and Awarded for Research Paper presented at International Symposium on 5G & Beyond for Rural Upliftment

Abhinav Prakash (Batch 2k18)

1st Runner Up in National Level COVID-19 e-hardware hackathon 2020, KC College of Engg, working as a research intern in IIT Roorkee (Temperature analysis of FinFET based amplifier)

Aditaya Burnwal (Batch 2k18)

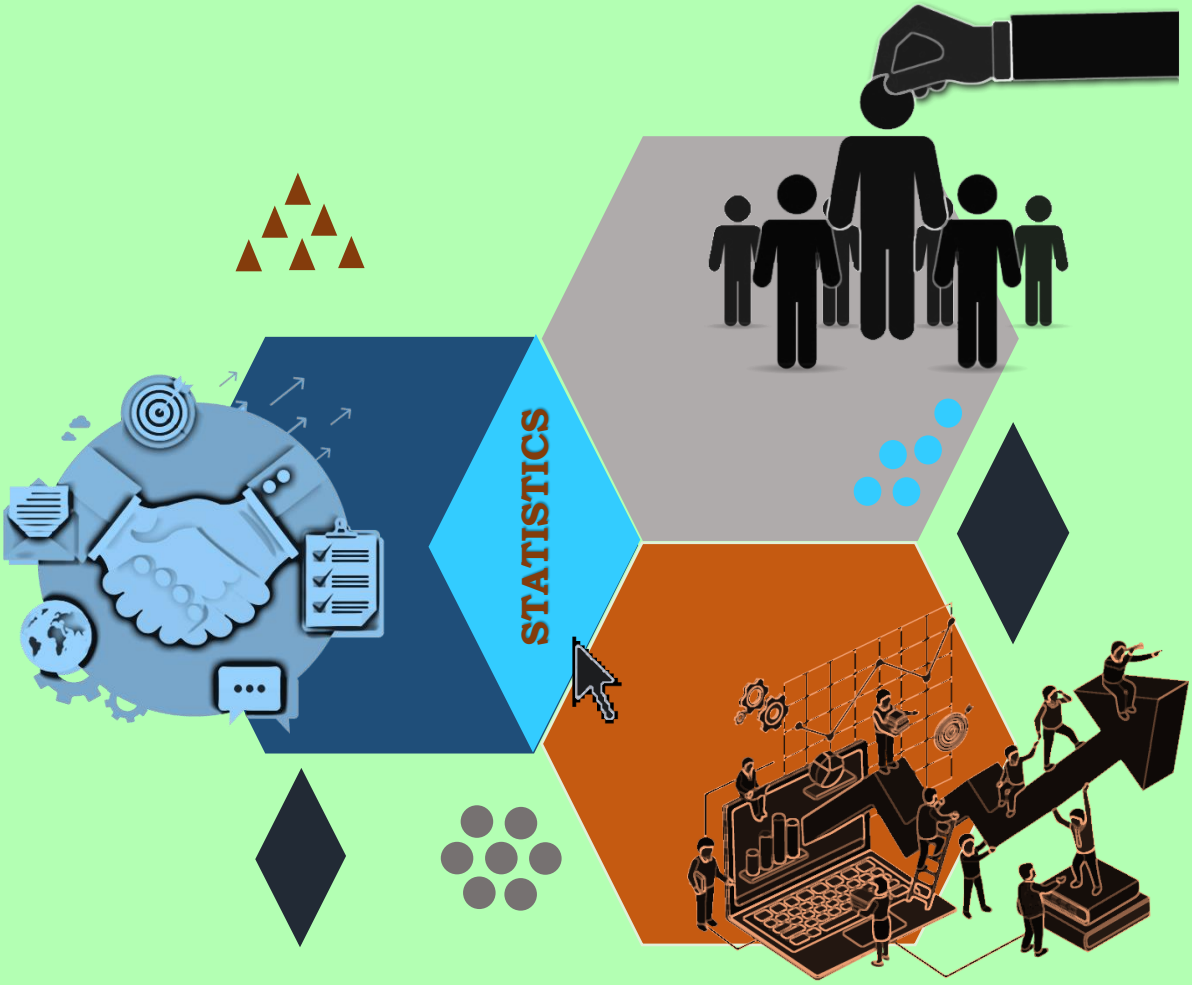
Recognised as citizen scientist and researcher by Indian Astronomical Search Collaboration, NASA, Society for Space Education Research and Development (SSERD).



Aamir Alam (Batch 2k18)

Grabbed position as a Summer Intern on Machine Learning for Wireless Communication from IIIT Guwahati

"What you are thinking is what you are becoming"- Muhammad Ali



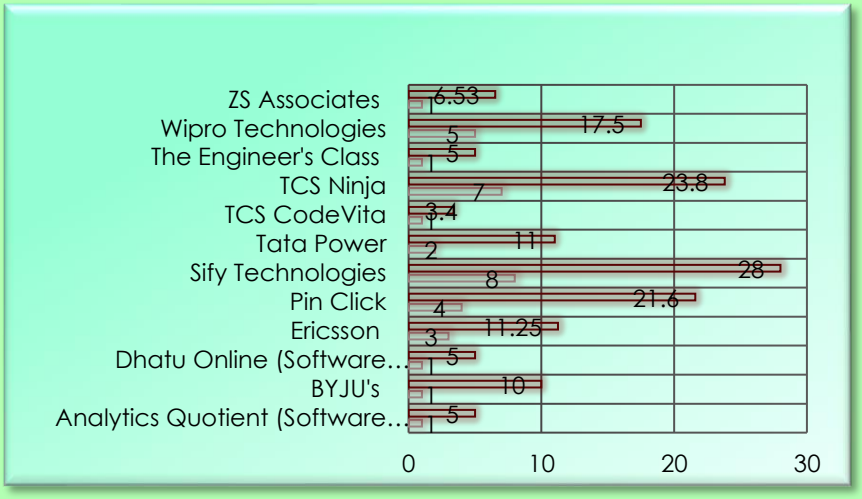
PLACEMENT

Learn to balance a dream and a job,

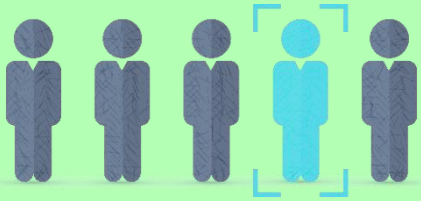
Until your dream becomes your job

PLACEMENT RECORDS

Sl. No.	Name of the student Placed	COMPANY	CTC (lpa)
	BATCH 2k16		
1.	**Abhijeet Kumar**	**BYJU's**	**10**
2.	Snehal Singh	ZS Associates	6.53
3.	Rohit Kumar	Tata Power	5.5
4.	Priya Chandra	Tata Power	5.5
5.	Abhijeet Kumar	Pin Click	5.4
6.	Abinas Kumar	Pin Click	5.4
7.	Bhuwan Mahato	Pin Click	5.4
8.	Ajay Kumar Ravidas	Pin Click	5.4
9.	Komal Kumari Singh	Analytics Quotient (Software Domain)	5
10.	Navneet Sahu	Dhatu Online (Software Engineer)	5
11.	Md. Shahid	The Engineer's Class	5
12.	Puja Singh	Ericsson	3.75
13.	Ritesh Kumar Ranjan	Ericsson	3.75
14.	Sanjay Kumar Mohanty	Ericsson	3.75
15.	Aditya Prakash	Sify Technologies	3.5
16.	Anubhav Kumar Choudhary	Sify Technologies	3.5
17.	Kumar Vashishtha	Sify Technologies	3.5
18.	Rishabh Kumar	Sify Technologies	3.5
19.	Shweta Gupta	Sify Technologies	3.5
20.	Tripti Kumari	Sify Technologies	3.5
21.	Vimal Kumar	Sify Technologies	3.5
22.	Karan Raj	Sify Technologies	3.5
23.	Abhijeet Kumar	Wipro Technologies	3.5
24.	Bhuwan Mahato	Wipro Technologies	3.5
25.	Hitesh Kumar Chandra	Wipro Technologies	3.5
26.	Mahepara Siddique	Wipro Technologies	3.5
27.	Shivani Gupta	Wipro Technologies	3.5
28.	Snehal Singh	TCS CodeVita	3.4
29.	Abhishek Kumar Singh	TCS Ninja	3.4
30.	Adarsh Prakash	TCS Ninja	3.4
31.	Komal Kumari Singh	TCS Ninja	3.4
32.	Krishna Kumar	TCS Ninja	3.4
33.	Navneet Sahu	TCS Ninja	3.4
34.	Trishita Dasgupta	TCS Ninja	3.4
35.	Ayushi Kumari	TCS Ninja	3.4



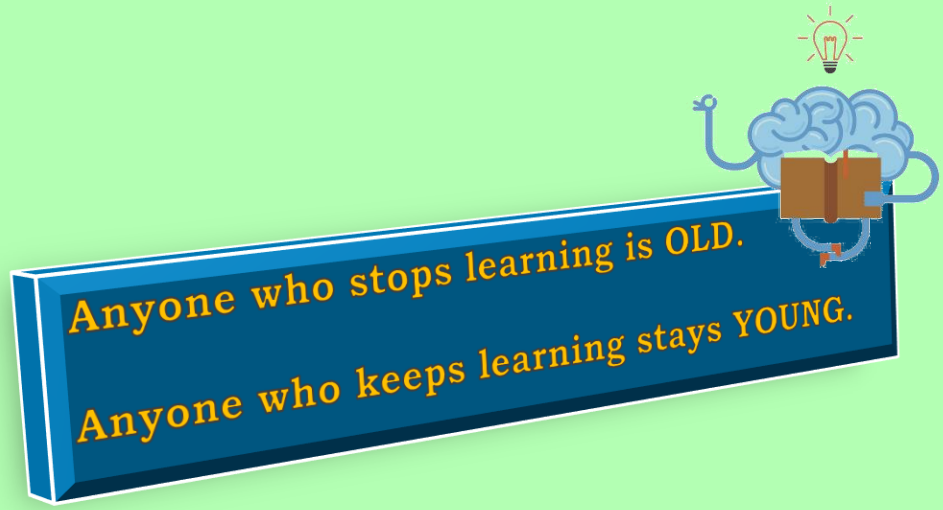
Sl. No.	Name of the student Placed	Company
	BATCH 2k15	
1.	Badal Sahoo	ZS ASSOCIATES
2.	Vandna Kumari	TATA STEEL
3.	Suman Kumari	TATA STEEL
4.	Shruti Shubhangee	ANALYTICS QUOTIENT
5.	Subhash	TCS CODEVITA
6.	Anupriya Sheetu	TCS NINJA
7.	Saket Kumar	TCS NINJA
8.	Hampy Patwari	TCS NINJA
9.	Juhi Kumari	TCS NINJA
10.	Janvi Baranwal	TCS NINJA
11.	Jyoti Kumari	TCS NINJA
12.	Sourav Kumar	TCS NINJA
13.	Om Prakash	TCS NINJA
14.	Asika Agarwal	TCS NINJA
15.	Srijan Bhardwaj	TCS NINJA
16.	Indrajit Roy	TCS NINJA
17.	Suraj Sharma	TCS NINJA
18.	Shuvam	TCS NINJA
19.	Rohan Raj	TCS NINJA
20.	Vandna Kumari	TCS NINJA
21.	Piyush Kumar	TCS NINJA
22.	Himanshu Shekhar	WIPRO
23.	Vijay Kumar Prajapati	WIPRO
24.	Sourav Agarwal	WIPRO
25.	Suraj Kumar Paswan	WIPRO
26.	Ashish Kumar	WIPRO
27.	Abhishek	WIPRO
28.	Diksha Jha	WIPRO
29.	Sushmit Anshu Kullu	SIFY
30.	Rajiv Nayan Singh	SIFY
31.	Ammar Amin	SIFY
	BATCH 2k14	
1.	Simran Shandilya	HAFELE INDIA
2.	Ishjyot Singh	TCS
3.	Kamna Lohra	TCS
4.	Megha Verma	TCS
5.	Monika Kumari	TCS
6.	Nitika Gaurav	TCS
7.	Puja Kumari	TCS
8.	Rianshu Kumari	TCS
9.	Shubham Kumar	VEDIKA CAPITAL LTD
10.	Shruti Kumari	MOTION EDU PVT LTD
11.	Varsha Kumari Shaw	MOTION EDU PVT LTD
12.	Ashwini Kumar	TRIANGLE PVT LTD
13.	Ejahul Haque	TRIANGLE PVT LTD
14.	Sarfaraz Ansari	TRIANGLE PVT LTD
15.	Tuhin Shubhra Zamindar	TRIANGLE PVT LTD
16.	Sneha Kumari	JSW STEEL
17.	Abhishek Kumar Dubey	JSW STEEL
18.	Ayushi Riya Ecka	FPS Job



HIGHER STUDIES

"The roots of education are bitter, but the fruit is sweet"

Sl. No.	Name of the Student	Course Name	Organization
BATCH 2k15			
1	Janvi Kumari Barnwal	M.TECH	NIT Surat
2	Asika Agarwal	MBA	IIM Raipur
3	Sushmit Anshu Kullu	MBA	IIM Ranchi
BATCH 2k14			
1	Nitesh Kumar	M.TECH	IIT(ISM) (Dhanbad)
2	Manisha Dhan	MBA	IIM RANCHI
3	Varsha Kumari Saw	M.TECH	NIT Durgapur
4	Swarnika Shruti	M.TECH	IIIT Allahabad
5	Sneha Kumari	M.TECH	IIT PATNA
6	Amit Kumar	M.TECH	NIT Patna
7	Madhurima Roy	M.TECH	JRF(CSIR) Durgapur
8	Niraj Kumar	M.TECH	NIT Jamshedpur



CLUBS & SOCIETIES

PRAYAAS INDIA is a Non-Governmental Organization providing free and high-quality education to underprivileged children living in slums and villages near college campus. The whole management of the organization is handled by college students. Presently more than 800 children are getting free education. Apart from two-hours evening classes, meritorious of them are admitted in good private schools for formal education. Prayaas is a charitable organization in the service of underprivileged and poor children.

Arts Club is one of the oldest Students Cultural Society at BIT Sindri. It has a long rich tradition of Art and Culture. It provides a platform to Bitians to exhibit their hidden talents.Arts Club is quite popular in BIT due to its popular stage shows and cultural programs. It not only helps in preserving our rich art and cultural heritage, but entertains BIT during the hard and busy academic life.

Model Club is an attempt to manifest the technical mindset, personality development and success stories of this premier technical institution of Jharkhand. This club is the only technical club established by the BIT administration in the year 1976 with the leadership of wing commander Gyaneshwar Singh and his able team for conducting technical activities for the young technocrats of BIT Sindri. After its establishment, the club has always been on an ascent to scaling new heights every year by organizing various technical events. Since then, Model Club is an organization that is inherently associated with diffusion of science and technology in would-be technocrats.

IETE provides leadership in Scientific and Technical areas of direct importance to the national development and economy. Government of India has recognized IETE as a Scientific and Industrial Research Organization (SIRO) and also notified as an educational Institution of national eminence. The objectives of IETE focus on advancing electro-technology. The IETE conducts and sponsors technical meetings, conferences, symposia, and exhibitions all over India, publishes technical journals and provides continuing education as well as career advancement opportunities to its members.

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Engineers at BIT Sindri have got several platforms and mediums to exhibit their art, creativity and talent. **Painting Wing** is one of such platforms, who manifest their creativity via canvas. Painting Wing is a group of young painting artists among BIT students. At painting wing, they share this common hobby and interact each other to understand new art forms. Painting wing organizes exhibitions, Rangoli competitions, T-shirt painting competitions, Pottery painting competitions etc. Some of the visitors appreciate the new experiments made by artists in their painting.

Rotaract Club of Sindri is the youth wing of Rotary International. **ROTARACT** stands for Rotary in Action. The Club was chartered on 7th February 1971 and is the oldest club of the institution. The moto of the club is *'**Service above selves.**'* It acts as a helping hand to the destitute part of the society. The club works under four wings: The community services, club services, international services and vocational services.

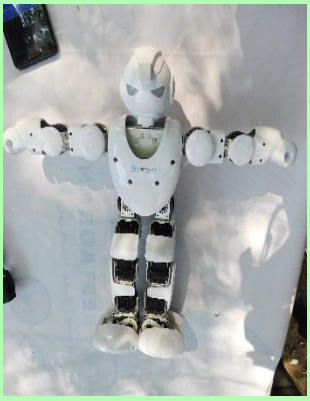
ISTE stands for "Indian Society for Technical Educations". Its BIT Sindri chapter is known as popularly known as ISTE club. Its main objective is to promote ISTE objectives and co-ordinate ISTE programs at BIT Sindri. It organizes lectures and several events at BIT Sindri throughout the year.

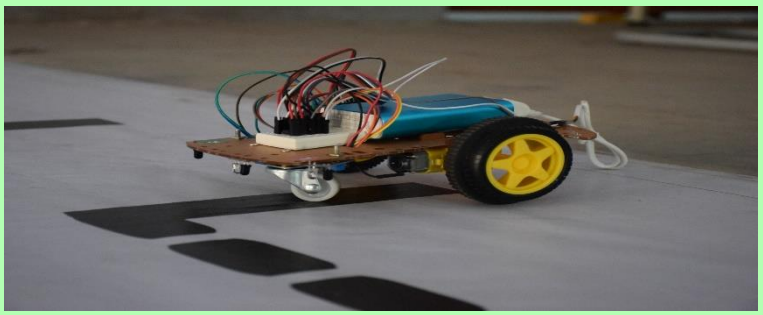
Engineers at BIT Sindri have got several platforms and mediums to exhibit their art, creativity and talent. **Photographic Club** is one of such platforms, who manifest their creativity via shooting through camera. Photographic Club is a group of young photographers among BIT students. At photographic club, they share their common hobby and interest. Here they can learn fundamentals of professional and art photography.

ALUMNI INTERACTION

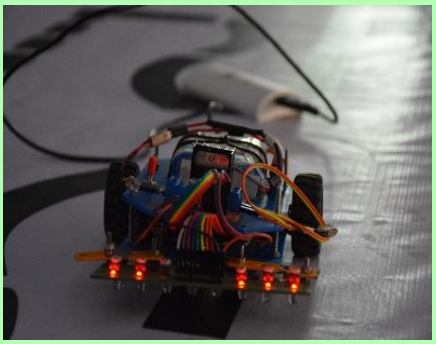
Alumni is the key to any institution's growth. A founder can only build any institution, it's the alumni that makes it prosperous. The annual alumni meet not only acts as a bridge between the students and the alumni but also allows the alumni to relive their college life once again for a few days. An alumnus has a wealth of experience that he shares with the students, helps them to design their roadmap, provide them opportunities and many more. The students definitely need industrial or practical experience to excel which can be easily provided with a good alumni network. It's rightly said that nobody cares for an institution more than its alumni. The interaction is not only beneficial for the institution or the students but it's also beneficial for the alumni. Here they get to know the mind-set of the upcoming generation, their requirements which they can use as the feedback for their companies. They get to meet their own batch mates and other college members who have succeeded in their respective fields and result into a merger of two companies providing more employment. Let's have a look at some of the pictures of alumni interaction.

GALLERY






BIG BAZAAR




E & ICT ACADEMY, NIT PATNA
BIT SINDRI
REMOTE CENTRE
Summer FDP Course on
5G Communications
11th - 15th June, 2018
Jointly organized by
E & ICT ACADEMY, NIT PATNA

Harder, we work. Higher, we rise. Better, we get

WE, IN SEMICONDUCTOR INDUSTRY, KNOW THAT ONLY THE PARANOID SURVIVE.

- ANDY GROVE

Stay tuned for the next edition…