



Annual Report

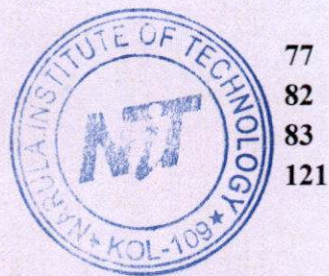
2015-2016



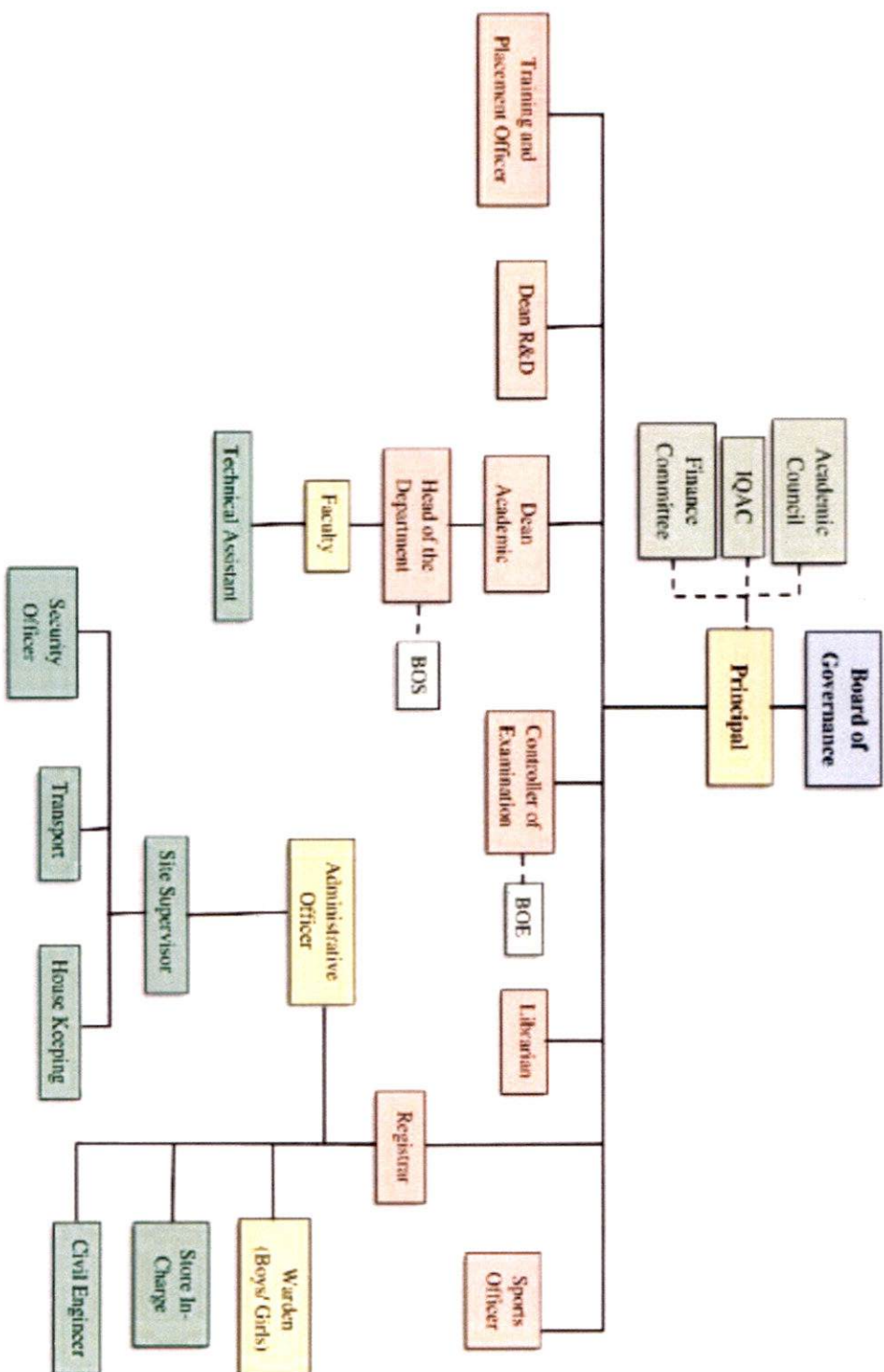
NARULA INSTITUTE OF TECHNOLOGY
An Educational Initiative of JIS Group

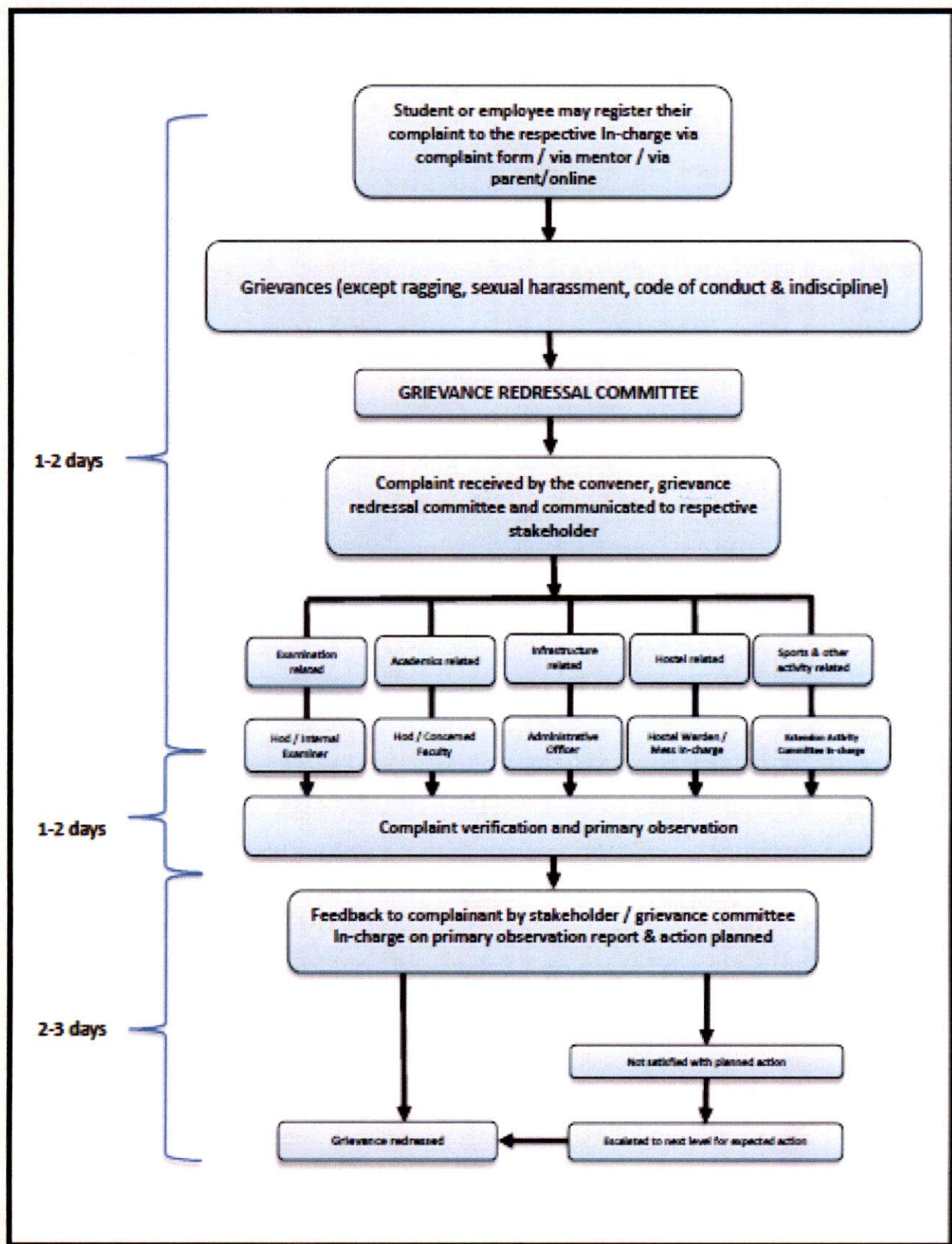


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ORGANIZATIONAL STRUCTURE OF NARULA INSTITUTE OF TECHNOLOGY





Principal's Message:

It is my privilege to warmly welcome you to this great institution dedicated to the cause of top quality technical education with the motto of "taking you to tomorrow's technology". The exemplary infrastructural facilities, the team of highly qualified, experienced and dedicated faculty and supporting staff and the exhilarating atmosphere in the campus will surely take you to enviable heights in your capabilities and achievements.

The Institute offers courses leading to B. Tech. Degree in seven disciplines and MBA, MCA and M.Tech., courses in Electrical Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Microelectronics & VLSI Design and Civil Engineering. Many of the departments have been accredited by NBA. This College has also been aided by World Bank under prestigious TEQIP Scheme



Prof. M R Kanjilal
Principal NiT

This college today is an Autonomous Institute which gives the faculty and its staff to frame its own syllabus and curriculum considering the needs of the society and also to produce Industry ready personalities. The Institute is equipped with state of the art laboratory and workshop facilities, computer facilities, Library and Information Centre, air-conditioned seminar hall, round the clock Internet facilities & separate hostels for Boys and Girls in and around the campus. During the last 16 years nearly 12000 students have graduated and post graduated in various disciplines of engineering and management from our college. Many of our College Alumni are holding good positions in a number of well known organizations, not only in our country but also abroad.

The College encourages faculty members to acquire higher degrees, to publish text books/papers and participate in Seminar/Workshop/Conferences that are held not only within our country but also abroad. Even some of our students have published scientific papers in different reputed journals. The college encourages students to take part in co-curricular activities like inter collegiate competitions in outdoor/indoor sports / games, cultural events and technical paper presentation competitions etc. The Institute has also Environment cell, Entrepreneurship Development Cell and different Professional Students' Chapter in each department which help the students to strengthen their ability in different sectors of life.

The college has a full-fledged Placement and Training Centre. This centre also organizes several training programs related to development of soft skills to our college students. The Placement and Training Centre has enabled our college students to get job offers from many leading organizations even before completion of their formal degree.

Overall mission of the Institute is to produce good human being in the professional world.

Thus I hereby present the Annual Report of 2015-16 on behalf of the Institute.

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Chapter 2

About The Institute

Introduction

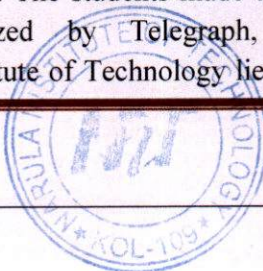
Narula Institute of Technology is a leading autonomous Engineering & Management college, located at Agarpara near Kolkata under the aegis of JIS Group Educational Initiative since 2001.

It is approved by AICTE and affiliated to MAKAUT, formerly known as West Bengal University of Technology and has NBA accredited degree programmes in engineering. It boasts of the prestigious NIRF ranking among 150 selected institutes of India. It is also accredited by National Assessment and Accreditation Council (NAAC). The college has also received the notable World Bank Assisted and MHRD approved TEQIP (Phase II) grant for the advancement of Technical Education. It is eligible for receiving Central assistance under the recognition of 2(f) & 12(B) under UGC Act.

The four year B.Tech course is imparted in the streams of Computer Science Engineering, Electronics and Communication Engineering, Electrical Engineering, Civil Engineering, Information Technology, Electronics and Instrumentation Engineering and Mechanical Engineering. The institute provides a brilliant platform for pursuing higher studies through PG courses like M.Tech (CSE, ECE, EE- Power System, CE- Structural Engineering), MBA and MCA. It has expanded to include diploma programs in EE, CE and ECTC under the affiliation of West Bengal State Council of Technical Education.

The institute boasts of a powerful R & D cell with immense contribution from the scholarly faculty members. There is an enormous repository of International and National Journal publications, E- books, Online Lectures which have drawn nationwide attention. With the encouragement and support from the college, around ten projects funded by organizations like UGC, BRNS and AICTE are running successfully by the faculty members till date. Very recently the ECE Department has secured the MODROBS grant for upgrading their Embedded System and Electronic Design Automation Lab. The college is in collaboration with Tech Mahindra, Reliance Jio Infocom Ltd, CII, NASSCOM, Aspire Disruptive Skill foundation, Oracle, INFOSYS, TCS, NIT Sikkim, IIT-KGP, AIT Bangkok and other organizations of repute. The students get an opportunity to interact in an international platform through seminars, conferences and special teaching-learning sessions. The student chapter plays a crucial role in organizing informative technical events within the campus. At present there are five student chapters in our college: IETE student forum of Electronics & Communication Engineering Department, ICE & ASCE of Civil Engineering Department, CSI of Computer Science Engineering, Information Technology & MCA Department and Institute of Engineers India (IEI) of Electrical Engineering Department.

Apart from academics, the students get an exposure to the world of co-curricular activities which help them in shaping and grooming their personality. The students made the college proud by winning laurels in some recent cultural events organized by Telegraph, Maruti Suzuki. Thus, the cornerstone of the successful evolution of Narula Institute of Technology lies in its modern teaching learning process,



good ragging free environment, meticulous tutoring and mentoring of the future professionals of the industry as well as of academia, where the Institute's success has always been directly proportional to the success of the students.

VISION

To develop responsible citizens who would 'think global and act local' and become the change agents of society to meet the challenges of future.

MISSION

To impart high quality Engineering and Management education to the budding professionals and provide the ambience needed for developing requisite skills to make a mark of excellence in Education, Business and Industry.

QUALITY POLICY

Best standards and practices of good governance, to be put in place to bring in transparency of operations and improve credibility at all levels.

Industry-ready professionals to be developed through Interactive Teaching-Learning Process, Corporate exposure and project work.

Higher Studies/research for Faculty & Staff to be encouraged for up gradation of knowledge which would, inter alia, include participation in TEQIPs, Seminar, workshop etc.

Appropriate Laboratory facilities would be developed in selected areas to provide fillip for R&D.

Industrial consultancy to be carried out in an effective manner through Industry Institute Partnership cell (IIPC) for developing a sense of accomplishment.

NBA accreditation for all AICTE approved programmes to be obtained at the earliest and maintained on a long-term basis.

OUTCOME BASED INSTITUTIONAL OBJECTIVE

To create an environment to empower the students with solid foundation in mathematical, scientific, engineering, managerial, entrepreneurial fundamentals and incorporate research based curriculum thorough establishing continuous wide network with the industries in order to initiate long term academic excellence in the institution.



Chapter 3

About the Institute (Contd.)

Admission Data

Narula Institute of Technology offers a number of courses ranging from Engineering (B.Tech and M.Tech), Management (MBA) and Computer Application (MCA). Diploma in Engineering in branches of Electronics & Communication Engineering (ECE), Electrical Engineering (EE) and Civil Engineering (CE) is also taught.

Each of the courses offered have a separate Entrance Test according to their respective Government of West Bengal examination boards.

Student admission for B.Tech is through WBJEE. Whereas for M.Tech the intake is through GATE score and PGET examination.

The admission for MBA is through JEMAT and MAT examinations, whereas intake for MCA is through JECA.

The entrance test for Diploma courses is JEXPO.

Also as per Government norms, 10% seats are reserved for Diploma Engineering students for t admission (Lateral Entry) to B.Tech 2nd. year . The admission occurs through JELET.

Apart from this, admission also occurs through Common Entrance Examination AMPAI, which is an entrance examination conducted by the Association of Minority Professional Academic Institutes (AMPAI). Except for Lateral entry in Engineering, 50% seats are reserved in each course, whereby admission occurs through AMPAI.



Institutional Events

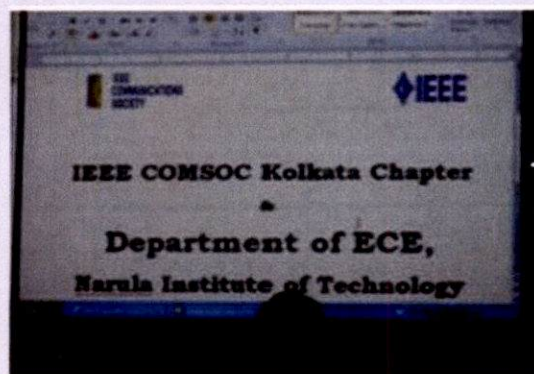
Spoken Tutorial, IIT Bombay, Project of MHRD, Govt.of India:

The facility of collaborative lab is provided by IIT Bombay under ministry of MHRD, Govt of India to enrich technical ability of students on recent development.

Tie up with Indian Institute of Remote Sensing, IIRS, Govt.of India, the programs help to upgrade the students about the recent technological developments like: Geospatial technologies for urban planning sponsored by national natural resources management system, Basics of Remote Sensing, GIS and GNSS etc.

Seminar program on the topic of recent researches on wireless communication

A seminar program on the topic of recent researches on wireless communication was organized by IEEE COMSOC Kolkata Chapter and Department of ECE, Narula Institute of Technology on 25th July, 2015 from 11 AM to 4 PM. There were series of lectures delivered by experienced academia and Industry professionals.



Seminar program on the topic of recent researches on wireless communication

Speech on “STAAD PRO AND BENTLEY”

Department of Civil Engineering on 18/04/2016 organized a speech on **STAAD PRO AND BENTLEY**. Mr. Barun Rai requested to our honorable guest to start the session of interaction and discuss about facilities of Bentley and STAAD PRO.

Mr. Anisurya shared the benefits of Bentley Systems and its software. He also emphasized on the fact that, studying is the primary importance to the students and suggested that having knowledge about Civil Engineering software is of prime importance.

He also focussed on the various aspects and visions of Bentley and discussed about the benefits of using STAAD PRO, later on the students asked about their queries, like future with using the software, research scope, which Mr. Anisurya discussed elaborately as much as possible.



Speech on "STAAD PRO AND BENTLEY"

Bidding Adieu 2k16

Bidding Adieu 2k16, the heartfelt tribute to the final year students of Narula Institute of Technology was organized by the 3 year students on May 30th by the Cultural Committee. It was celebrated in a euphoric way and students had tremendous enjoyment. Their gleeful faces reflect the attitude, values and love they share with NiT family.



Bidding Adieu 2k16

Project fair

The Basic Science & Humanities Department of Narula Institute of Technology organized a project fair at its own campus on "Chemical Phenomena and Waste Recycling" on 25th of May, 2016 at 3.00 PM to 5.00 PM sponsored by the Technical Education Quality Improvement Programme (TEQIP). The purpose of the event was to consider the different chemicals and chemical processes with a view to reduce or eliminate negative environmental impacts. The fair was chiefly associated with the exhibition of Physics and Chemistry based projects on recycled materials by the students of 1st and 2nd year B.Tech. courses. A competition was held separately for Physics and Chemistry projects where best three projects for Physics and Chemistry each have been awarded by a memento and certificate.



Rabindrajayanti Celebration

Tagore was a man ahead of his time. For the world he was the voice of India's heritage, and for us, he is a great living institution. To commemorate his 155th birthday all the faculty members of Narula Institute of Technology organized a programme, "Laho Pronam" on 18th of May 2016 at its Auditorium. The faculty members showcased their love and respect for Rabindranath Tagore through various performances composed by their own "Kabi Guru". The program started with a wonderful recitation by the Honorable VC JIS University Prof. Dr. B.C.Mal followed by the lighting of lamp by our own principal Prof. Dr. Maitreyi Kanjilal and an invigorating speech from her where she emphasized that Rabindranath Tagore flows in the bloodstream of every Bengali. Through a euphoric cultural performance of dance, recitation, musical performances and "Shruti Natty" the faculty members celebrated the spirit of universal brotherhood. Rabindranath being a true patriot, the celebration concluded with all faculty members singing the Indian National Anthem "Jana gana mana adhinaayaka jaya hay, Bhaaratha Bhaagya Vidhaata"



Tree Day Celebration

The students of Narula Institute of Technology observed National Love A Tree Day inside the campus on May, 16, 2016. The students and faculty members planted trees and took a step towards environmental cleanliness. Love a tree and save a life this was the spirit of the event.



NiT Jewels



“NiT Jewels” the Annual Day celebration was organized by Narula Institute of Technology at the heart of NIT on May 7, 2016. It was observed in a glorified way and the entire programme showcased the essence of Narula Institute of Technology. The award ceremony started with the rendering performance of our musical stalwarts and with the heartiest best wishes from the honorable Principal of NiT, Prof (Dr) M R Kanjilal.

The World Earth Day

The World Earth Day was celebrated on 22nd April, 2016 by the students at Narula Institute of Technology with a pledge to make the Mother Earth safe and clean. A tree plantation drive was organized within the campus and students and the staff members participated for the cause of a green environment. Later in that day around 255 students and faculties voluntarily donated blood to meet the crisis of Blood banks.



Navodaya Celebration

The final day of Navodaya organized by Narula Institute of Technology on 16th April, 2016 witnessed a dazzling show by the students and the guest performers. The college students rocked the stage with group dances and the evening shone brighter with the glittering fireworks and band performance of PRACHIR. The fest ended with the rhythm of DJ and a note of true spirit and harmony.



Walk for book rally

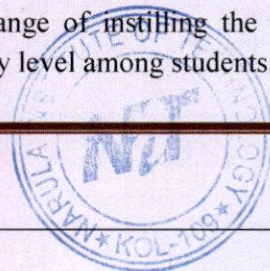
The students along with faculty members of Narula Institute of Technology participated in the 'Walk for books' rally as a part of the National Library Week from 10th to 16th April 2016. The Public Affairs Officer and Director, American Center flaged off the "Walk for Books" from American Center to Victoria Memorial (West Gate). The objective of such a programme is to enhance the reading habit of students which is almost becoming an extinct activity among the students. We feel proud to be a part of this wonderful venture and students of Narula gleefully participated in the programme.



Annual Techno Management Fest Kritanj 2K16

Narula Institute of Technology under the aegis of JIS Group Educational Initiatives witnessed its largest ever Annual Techno Management Fest Kritanj 2K16- Crossroad of Innovation organized by Narula Institute of Technology on 7th & 8th April, 2016. The idea of Kritanj was conceived with the aim to provide the technically inclined youth a successful platform where their talent and expertise would be recognized and duly rewarded.

On this occasion The CII NiT Innovation Club was launched at Narula Institute of Technology in association with CII which aims at developing a fundamental change of instilling the innovation and entrepreneurial attitude and creative thinking at academic and industry level among students.



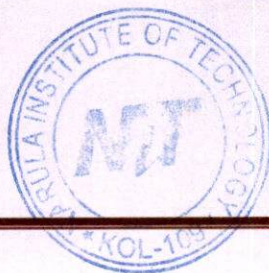
In this platform students could showcase their projects and ideas through various activities such as hardware and software Project Demonstration and Multimedia Presentation. The Projects were displayed by the budding genius of the school and the technocrats of different colleges which was extremely innovative and flooded with magnificent ideas and were highly appreciated by eminent dignitaries, industry stalwarts and dignified guests. Various events covered under Kritanj-2016 included Robo Ranger, Robo Soccer and Robo War, which were truly exciting and had huge participation. The other fascinating events were: Gaming, Bridge It, Electrocuton, Concrete, Cad It, Code It and Add Mad. Kritanj 2016 also had some online events like The Selfie Contest and Treasure Hunt. The most interesting and crowd pulling events were The Takeshi's Castle, Paintball and Zorbing.



Annual Techno Management Fest Kritanj 2K16

Indoor Sports Tournament

Students of Narula Institute of Technology organized 2 days Indoor Sports Tournament for Students and Staff members on 17th & 18th March 2016.



Vishwakarma Puja

The Cultural committee organized Vishwakarma Puja celebration on 18th October 2015. The event took place at the College Workshop and all the students actively participated in the event. Great team spirit was observed from bringing the idol to the immersion of the idol.

**Birth anniversary of Swami Vivekananda**

The Cultural Committee of Narula Institute of Technology celebrated the birth anniversary of Swami Vivekananda on 12th January 2016 from 3.30pm onwards in the Seminar Hall. Our students observed the day with speech, drama enumerating the sermons and preaching of Swamiji. They dedicated their love and respect through their cultural performances.

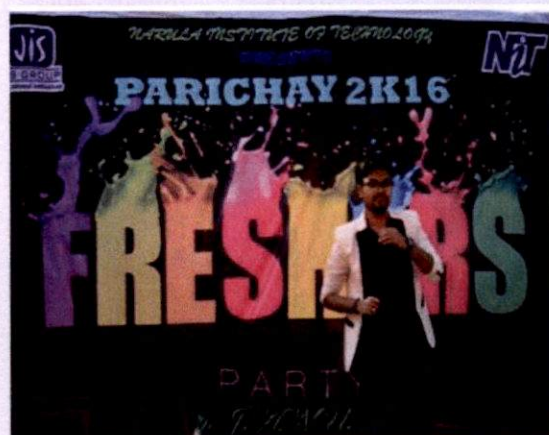


Republic Day

On 26th January the 67th Republic Day was observed with passion and dignity at Narula Institute of Technology. The college took initiative of inviting the students from the neighboring primary school. At the end of this solemn event sweets and chocolates were distributed to the school students and they left the premises with a sense of fraternity.

**PARICHAY2016, Fresher's welcome**

PARICHAY2016, Fresher's welcome was observed on 30th Jan 2016 in the College Campus. 1st year students with pomp and grandeur participated in the event to get themselves acquainted with the culture of the college.



Annual Sports

To keep up the Sports Spirit of our college, students organized Annual Sports in NIT Campus on 1st and 2nd February 2016. Many enthusiastic students participated in the events and showcased their talent. There was loud cheer and jubilation among all the students and faculty members of NiT



Sardar Jodh Singh Challengers Trophy

Sports Club members participated in the Sardar Jodh Singh Challengers Trophy (Student Cricket Tournament 2016) scheduled on 4th & 5th feb (league match) at Gurunanak campus Ground and they won the Trophy. There was a tremendous applause and students were highly excited.



Book Fair Performance

Students of Narula Institute of Technology performed at the JIS Stall in the 40th Book Fair 2016 on 29th Jan, 4th Feb and 5th Feb 2016. It was a grand success. From drama to quiz, musical rendition to dance, band performance to recitation; bewildering performances astounded the bystanders.



Saraswati Puja

All the students of the college celebrated Saraswati Puja in the institute premises on 12th February 2016. The Puja ritual took place at 3:30pm followed by lunch and then brief cultural programme and felicitation of the College Cricket Team (Students) at SJS cricket tournament and cultural performers in the literary meet at the Kolkata Book Fair.

Mini Marathon

The bystanders and the residents at Kamarhati witnessed a brilliant show of harmony on March 8, 2016 when around five –hundred participants ran gleefully in the 3.5 km Mini Marathon organized by Narula Institute of Technology along with all the students , faculty members and staffs. The Marathon echoed the slogan 'Run with gaiety, Pledge for Parity'. 8th March Narula Institute of Technology successfully completed Mini Marathon 2016 with the PLEDGE FOR PARITY on International Womens' Day.





Mini Marathon

International Day of Yoga

International Day of Yoga on 21st June 2015 was celebrated within the premises of Narula Institute of Technology premises.



Constitution Day Celebration



On the eve of the "Constitution Day" on 26th November 2015 a program on Indian Constitution was arranged at Narula Institute of Technology.



Student Centric Activities

Student Centric Activities are a conglomeration of the development of Soft Skills, Language and Communication Skills, Life Skills, Trends in Technology Skills.

Soft skills focus on who people are, as opposed to what they are trained in. They serve to represent your approach to life and work meaning soft skills are interpersonal skills hardwired to an individual's personality, and they characterize how you interact with other people in the workplace. The training on Language and Communication Skills intends to create awareness of one's current presentation skills and practice & develop effective skills for presentation, understand the importance of communication types, developing effective verbal communication, importance of grooming and etiquette and cross-cultural communication. Learning and adapting new Life skills, we increase our understanding of the world around us and equip ourselves with the tools we need to live a more productive and fulfilling life, finding ways to cope with the challenges that life, inevitably, throws at us. Technology is rapidly changing the way we live and interact. It is changing the face of every field and every sector in the best way possible. Education technology can help to eliminate current barriers of providing quality education to all and will provide a chance to widen the imagination of the students and help them grasp better. The education sector and the entities such as students, teachers, management, parents, etc. will benefit a lot from the latest and upcoming trends in education technology.

A documentation of such yearly activities is provided herewith.

Soft Skills

Soft Skill Training are organized to enhance the interview skills and techniques, time management, decision-making, problem-solving ability of students. This kind of trainings develops students for various campus recruitment and competitive examinations.

Training and placement cell provides various opportunities for overall growth of the student by organizing value-added programs. Career Development Programs are also conducted on a regular basis for value addition in the lives of our students.

Name of the capability enhancement program	Date	Name of the agencies/consultants	Objective
Soft Skill Training - CE 1st year	23-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training - EIE 1st year	21-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill

Soft Skill Training- EE 1st year Sec B	18-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training - EE 1st year Sec A	18-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training - ME 1st year	16-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training - IT 1st year	14-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training - ECE 1st year Sec B	10-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training- ECE 1st year Sec A	07-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training- CSE 1st year Sec B	03-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training-CSE 1st year Sec A	01-09-2015	Mr. Tapas Mukherjee, Target Education	Enhancement of soft skill
Soft Skill Training- MCA and M. Tech	17-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill
Soft Skill Training- IT 3rd year and EIE 3rd year	16-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill
Soft Skill Training- EE 3rd year Sec B	15-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill
Soft Skill Training- EE 3rd year Sec A	14-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill
Soft Skill Training- CE 3rd year Sec B	13-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill
Soft Skill Training- CE 3rd year Sec A	10-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill



Soft Skill Training- ECE 3rdyear Sec B	09-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill
Soft Skill Training- ECE 3rdyear Sec A	08-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill
Soft Skill Training- CSE 3rd year Sec B	07-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill
Soft Skill Training-CSE 3rdyear Sec A	06-07-2015	Mr. Madhusudan Dutta, Avteg Pvt. Ltd	Enhancement of soft skill



Soft Skill Training -CE



Soft Skill Training – EE (B. TECH) conducted on 15-07-15

Language and Communication Skills

Language is considered the best facilitator of communication and it is also considered hindrance in the way of communication. Training is provided to students so as grooming can be done on several areas like the importance of proper communication, types of communication, barriers to communication, presentation skills etc. Distinguished experts from academics and industry deliver sessions on these topics that help the students to become prepared as per the need of the industry.

Name of the capability enhancement program	Date	Name of the agencies/consultants	Objective
Language and communication skills Training - CSE 1st year Sec B	25-01-2016	Dr. Leena Sarkar Bhaduri, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - ECE 1st year Sec A	22-01-2016	Dr. Leena Sarkar Bhaduri, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - CSE 1st year Sec A	21-01-2016	Dr. Leena Sarkar Bhaduri, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - ECE 1st year Sec B	20-01-2016	Ms. Rajasi Ray, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - EE 1st year Sec B	19-01-2016	Ms. Sharmistha Basu, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - EE 1st year Sec A	18-01-2016	Ms. Sharmistha Basu, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - EIE 1st year	15-01-2016	Ms. Sharmistha Basu, Narula Institute of Technology	Understanding of language and proper communication skills

Language and communication skills Training - CE 1st year Sec B	14-01-2016	Ms. Sharmistha Basu, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - CE 1st year Sec A	13-01-2016	Ms. Sharmistha Basu, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - IT Ist year	12-01-2016	Dr. Leena Sarkar Bhaduri, Narula Institute of Technology	Understanding of language and proper communication skills
Language and communication skills Training - ME Ist year	11-01-2016	Ms. Rajasi Ray, Narula Institute of Technology	Understanding of language and proper communication skills



Life Skills

Institute encourages yoga and meditation to enhance self-awareness, promoting physical and mental health of students and staff members. Yoga and Meditation increases self-esteem, reduces stress and lengthens attention span which can help a student to stay focused.

Name of the capability enhancement program	Date	Name of the agencies/consultants	Objective
International Yoga Day	21-06-2016	Mr. Peenaz Reza, Yoga Trainer	Enhancing physical and mental health
Blood donation Camp	22-04-2016	Dr Nikhilesh Sil, Narula Institute of Technology	Responsibility towards society
Session on Yoga MCA	18-09-2015	Mr. Peenaz Reza, Yoga Trainer	Enhancing physical and mental health
Awareness on Plastic Free Campus	13-08-2015	Dr Nikhilesh Sil, Narula Institute of Technology	Awareness about green campus
Session on Yoga ECE- Ist year	20-08-2015	Mr. Peenaz Reza, Yoga Trainer	Enhancing physical and mental health
Session on Yoga CSE- Ist year	19-08-2015	Mr. Peenaz Reza, Yoga Trainer	Enhancing physical and mental health
Session on Yoga ME and IT- Ist year	19-08-2015	Mr. Peenaz Reza, Yoga Trainer	Enhancing physical and mental health
Session on Yoga EIE and CE- Ist year	18-08-2015	Mr. Peenaz Reza, Yoga Trainer	Enhancing physical and mental health
Session on Yoga EE- Ist year	18-08-2015	Mr. Peenaz Reza, Yoga Trainer	Enhancing physical and mental health
Session on Yoga MCA	03-08-2015	Mr. Peenaz Reza, Yoga Trainer	Enhancing physical and mental health
Swachh Bharat Abhiyaan	20-07-2015	Dr Nikhilesh Sil, Narula Institute of Technology	Cleanliness and Hygiene



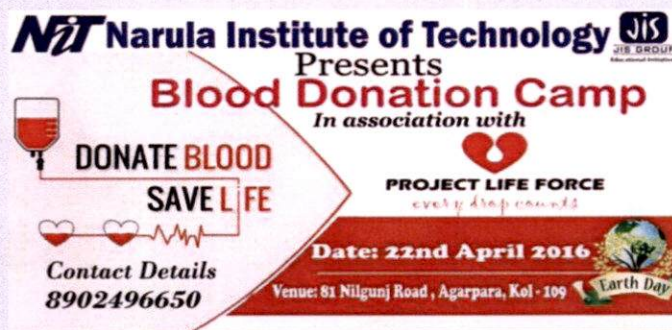
Yoga Session

Yoga session are organised for improvement of physical and mental health.



Students performing Aasanas conducted on 21-06-16 Blood donation Camp
Blood donation camp was organized to make students aware about noble acts of humanity and make them responsible citizens.

Blood Donation Camp conducted on 22-04-16



Glimpses of Blood Donation Camp conducted on 22-04-16

Swine Flu Awareness Program

Institute took an initiative to create a Swine Flu awareness program among the school children. Students along with faculty members visited various schools to spread awareness among the school children.



Glimpses of Swine Flu Awareness Program conducted on 23-09-15

Swacch Bharat Abhiyan

Institute organized Swacch Bharat Abhiyan to make students learn the significance of cleanliness. They cleaned classrooms, hostels, college premises and adjoining areas.



Students participating in Swacch Bharat Abhiyaan conducted on 20-07-15



Students participating in Swachh Bharat Abhiyaan conducted on 20-07-15

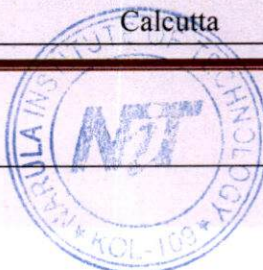


Trends in Technology

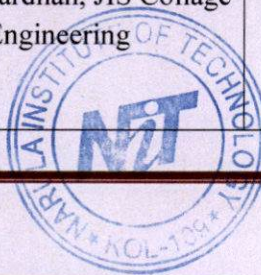
Technical seminars and workshops are conducted on regular basis for strengthening the knowledge of students about manufacturing practices in industry and the latest trend. Such programs are helpful to produce industry ready graduates. Industrial visits are also conducted to provide an exposure to students about practical working environment. They also provide students a good opportunity to gain full awareness about industrial practices.

Name of the capability enhancement program	Date	Name of the agencies/consultants	Objective
Industrial Visit to Sukhobristi Complex Group II	10-05-2016	Sukhobristi Complex, Rajarhat	Knowledge gain about the practical implementation of the latest technology
Industrial Visit to Sukhobristi Complex Group I	09-05-2016	Sukhobristi Complex, Rajarhat	Knowledge gain about the practical implementation of the latest technology
Industrial Visit at MSME Tool Room, Bonhooghly	04-05-2016	M. Rama Rao, MSME Tool Room (micro small and medium enterprises, Bonhooghly)	Knowledge gain about the practical implementation of the latest technology
Industrial Visit to EJobIndia - MCA	18-04-2016	Sourav Kundu, Ejob India	Knowledge gain about the practical implementation of the latest technology
Seminar on Advancement of Power Electronics in Industrial Motor Control	27-04-2016	Dr. Debashis Chatterjee, Professor, Electrical Engineering Department, Jadavpur University	Knowledge gain about advancement of power electronics
Workshop on Nano material to opportunities Abroad	05-04-2016 - 06-04-2016	Prof. Mallar Roy, School of Engineering and Sciences, Technology de Monterrey, Mexico	Knowledge of Nano material

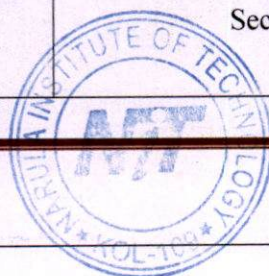
Industrial Visit to Doordarshan Kendra ECE Gr II	05-04-2016	Doordarshan Kendra, Golf green, Kolkata	Knowledge gain about the practical implementation of the latest technology
Industrial Visit to Doordarshan Kendra ECE Gr I	04-04-2016	Doordarshan Kendra, Golf green, Kolkata	Knowledge gain about the practical implementation of the latest technology
Technical Seminar on High Level Synthesis using ASAP & ALAP Algorithm	18-03-2016	Dr. Saradindu Panda, Narula Institute of Technology	Knowledge about high level synthesis using ASAP and ALAP algorithm
Technical Seminar on Basics of Semiconductors	04-03-2016	Mr. Surajit Bari, Narula Institute of Technology	Understanding of semiconductors
Technical Seminar on An Appreciation of Nanophotonics: The Promise of Photonic Bandgap Material and Plasmasonic	22-02-2016	Prof. (Dr.) Raghunath Bhattacharya, Emeritus Scientist, National Physical Laboratory	Knowledge of appreciation of nanophotonics
Industrial Visit at Mega Thermal Power Plan EIE Group II	17-02-2016	D Chowdhury, Mega Thermal Power Plant	Knowledge gain about the practical implementation of the latest technology
Industrial Visit at Mega Thermal Power Plan EIE Group I	16-02-2016	D Chowdhury, Mega Thermal Power Plant	Knowledge gain about the practical implementation of the latest technology
Technical Seminar on Satellite Communication & Remote Sensing	05-02-2016	Dr. A. Pal, Associate Professor, Institute of Radio Physics and Electronics, S.K. Mitra, Center for Research in Space Environment, University of Calcutta	Knowledge about satellite communication



Industrial Technical Seminar on dSPACE Controllers with dSPACE Hardwares	29-01-2016	Avdesh P.S. Gautam, Member Technical-DFT Embeded, Dspace	Knowledge gain about dSPACE controllers with dSPACE hardwares
Industrial visit at Bandel Thermal Power Station EE Group II	20-01-2016	Mr. Samiran Dey, Senior Manager, Technical Antenna - SLW, Schneider Electric	Knowledge gain about the practical implementation of the latest technology
Industrial visit at Bandel Thermal Power Station EE Group I	19-01-2016	Mr. Samiran Dey, Senior Manager, Technical Antenna - SLW, Schneider Electric	Knowledge gain about the practical implementation of the latest technology
Seminar on MEMS & Sensor Design	13-01-2016	Mr. Sugato Ghosh, Research Associate, IEST	Knowledge enhancement of MEMS
Industrial Visit to TechTree Technologies CSE Group II	09-11-2015	Mr Anirban Banerjee, TechTree Technologies, Kolkata	Knowledge gain about the practical implementation of the latest technology
Software Training	04-11-2015	Ms. Sujata Kundu, Narula Institute of Technology	Knowledge gain about software
Workshop on Advanced Welding	20-10-2015 21-10-2015	Prof. P. K Bardhan, JIS Collage of Engineering	Knowledge gain of advanced welding



Industrial Visit to EJobIndia - IT Gr II	07-10-2015	Sourav Kundu, Ejob India	Knowledge gain about the practical implementation of the latest technology
Industrial Visit to EJobIndia - IT Gr I	06-10-2015	Sourav Kundu, Ejob India	Knowledge gain about the practical implementation of the latest technology
Industrial Seminar on Recent Trends in Personal Safety	06-10-2015	Mr. Samiran Dey, Senior Manager (Technical Antenna - SLW), Schneider Electric	Knowledge gain about recent trend in personal safety
Industrial Visit to MSME (Micro, Small and Medium Enterprises) Central Tool Room and Training Centre ECE Group II	23-09-2015	M. Rama Rao, MSME Tool Room (micro small and medium enterprises, Bonhoogly	Knowledge gain about the practical implementation of the latest technology
Industrial Visit to MSME (Micro, Small and Medium Enterprises) Central Tool Room and Training Centre ECE Group I	21-09-2015	M. Rama Rao, MSME Tool Room (micro small and medium enterprises), Bonhoogly	Knowledge gain about the practical implementation of the latest technology
Industrial Visit at TSR Enterprise	12-09-2015	Mr Dipu Sarkar, Narula Institute of Technology	Knowledge gain about the practical implementation of the latest technology
Technical session on Development of communication in the wireless technology and beyond	05-09-2015	Prof. S.K.Sanyal, Chairman, CAS Chapter, IEEE Kolkata Section	Knowledge gain of communication in the wireless technology



Workshop on Power System Protection Technology	22-08-2015	Mr. Abhijit Bose, Executive Director, CESC Ltd	Knowledge of power system protection technology
Seminar on Recent Researches on Wireless communication	25-07-2015	Prof. (Dr.) Salil Kumar Sanyal, Jadavpur University	Knowledge of recent researches on wireless communication
Workshop on Linux Overview and Linux System Administration	01-07-2015-13-07-2015	Prof. Kousik Dasgupta, Kalyani Govt. Engg. College	Knowledge of Linux system administration
Industrial Visit to TechTree Technologies CSE Group I	08-07-2015	Mr Anirban Banerjee, TechTree Technologies	Knowledge gain about the practical implementation of the latest technology
Industrial Visit to Indian Space Research Organization (RRSC ISRO)	06-07-2015	Ms. Debrupa Pal, Narula Institute of Technology	Awareness of digitally empowered society
Workshop on Application of PLC in Industry	02-07-2015	Mr. Avshek Mallik, ECL Technology	Knowledge of application of PLC in industry





Glimpses of Industrial Visit to Sukhobristi Complex conducted on 09-05-16



Industrial Visit at TSR Enterprise conducted on 12-09-15



ORIENTATION PROGRAMME FOR 1ST YEAR STUDENTS

Induction Programme 2016 for the 1st year students

The one week Induction Programme **IP2K16** for the 1st year students (B.Tech, BBA, BCA and Diploma) in Narula Institute of Technology achieved its aim in making the newcomers familiarize with the culture of the institute. The sole objective of the event was to give the students a bird's eye view about the various dimensions of the respective curriculum and to acquaint them with the system and activities of the college.



The inaugural session commenced on 1st August with an inaugural hymn which was followed by the honourable Principal Dr.M.R.Kanjilal's address to the gathering. Thereafter she introduced all the departmental HODs to the students. Later Ms.Nidhi Singh, Registrar of the institute delivered a presentation where she explained about the various facilities and norms of the college. Later Prof. (Dr).J.K.Das, advisor to Narula Institute of Technology, greeted the students. The session witnessed the assembly of 2016 pass out students who shared their four years of experience at the college campus and with immense pride spoke of their placement in reputed concerns.

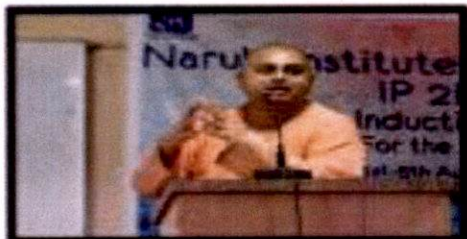


Day-II, 2nd August : The students received a foreword in context to the subjects they would learn in their 1st year. Dr.Sushmita Karan gave an overview of the Basic Physics while Dr. Rupa Bhattacharyya explained the importance of Chemistry in Engineering. Dr.Debjani Chakraborty and Mr.Gautam Roy focused on the syllabus of Mathematics and Mechanical Science respectively. It was followed by the presentation from Mr.Sudhanshu Sarkar, Mr.Surajit Bari & Mr.Kaushik Sarkar and they highlighted the importance of Basic Electrical & Basic Electronics subjects to all the future engineers. The subject of Computer fundamentals was delivered by

Dr.Kunal Ghosh. The final speaker of the session was Prof.Dr.Tanmoy Ghosh, Associate Professor, English Department, University of Calcutta who discussed the importance of English communication for Employability. The Diploma students were also addressed by the departmental subject experts. Dr.Indrani Sarkar-Physics, Dr.Sarbani Ganguly-Chemistry, Dr.Nikhilesh Sil-Mathematics, Mr.Argha Gupta-Mechanical sciences, Dr.Leena Sarkar Bhaduri-English, Ms.Dipu Mistri-Basic Electrical, Mr.Soumen Pal-Basic Electronics and Dr.Kunal Ghosh-Introduction to computer. All the resource persons spoke about the importance of the respective subjects.



Day III, 3rd August : The morning session commenced with a lecture from Dr.Sumit Nandi,HOD,BSHU on *Water: Lifeline of Human Beings on Earth*. The student representatives from 4th year gave a



PowerPoint presentation on the various academic and infrastructural facilities and activities related to Students' Life centre. They encouraged participation from the 1st year in the coming days. The student representatives of Hostel and anti-ragging squad shared their experiences and assured the newcomers with firm conviction that Narula Institute of Technology is a ragging free campus. In the second half the

students got an idea about *Entrepreneurship* from Ms.Nilanjana Mukherjee, alumni of the college who is presently a successful entrepreneur at Universal Sales. The third day of Induction programme reached its zenith in the concluding period which was conducted by Swami Vedatitananda from Belur Math Ramkrishna Mission Silpamandir. His discourse was on *Ethics & Moral responsibilities of students*. The students left the auditorium with a high spirit.

The Diploma students went through a thought provoking session titled " *Where does our food come from*":a presentation by *Human Society International*.

Day-IV, 4th August: The title of the session was *Glimpse of Industry life:preparing to be a successful professional* and the resource persons from the eminent companies like Vodafone and INSDAG,



presented their views on how to be industry ready. During the first half Mr.Arka Roy Choudhuri, Quality Control manager, RDS Technotic solutions ltd had an interactive session with the students which was followed by Ms.Ditipriya Ghosh, Trainee engineer ,Vodafone who shared valuable information related to taking preparations for GATE and such other competitive examinations. She focused on the kind of interview rounds that the students need to undergo. The Training & Placement cell of the institute presented the process of extensive training which

helps a job aspirant to fulfill his dreams.

Later in the session Prof.P.K.Banerjee, advisor to JIS group had a brilliant interactive session with the students and gave them useful tips in order to meet their desired career objectives. The second session was commenced with the presentation of Mr.Debashish Choudhury,Vice President,Technical,R & D,Megatherm Pvt.Ltd. It was followed by the scholarly address of Mr. Debashis Datta,Asst. General Manager,INSDAG, Kolkata. The final conclave was on *Environmental Ethics and Global changes* which was delivered by Kakali B.Chakraborty, Graduate Teaching & Research Assistant.

The Diploma students were addressed by Mr.Sreemanta Datta, Former Chief Designer, Tractors India and is presently in the Mechanical Engineering department of the college. The students enthusiastically participated in a poster making competition based on the last day's presentation on 'Where does our food come from'.

Day-V, 5th August: The last day of the Induction was on a lighter note and witnessed a dazzling cultural performance by the senior students. The newcomers were inspired and came forward to participate in the cultural activities and added vigour to the event.



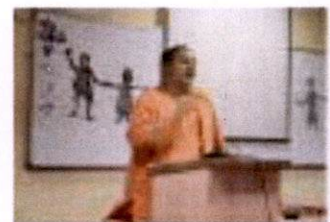
Day-VI 6th August: The institute invited the guardians of all the 1st year B.Tech students to take part in an open house session to satisfy their queries and to give them an idea about the different academic and disciplinary norms of the college. The meeting commenced with a presentation from the college about the different academic facilities and co-curricular activities which helps a student to shape their personality and make a bright career. The session was attended by the honourable Principal Dr.M.R.Kanjilal, Registrar, Ms.Nidhi Singh and all the Head of the Department and the 1st year faculty coordinators from the respective departments. There was an overwhelming response



from the respected guardians. The Guardians thanked the college authority for their initiative and shared their valuable views on various issues. They left the seminar hall with a feeling of satisfaction and high hopes.

Induction Programme for 2015 First Year

The 4-days Induction Programme for the 1st year students of B.Tech, course in Narula Institute of Technology came to an end on Friday, the 7th August,



2015. The sole objective of the event was to give the newcomers a bird's eye view about the various dimensions of the respective



curriculum and to acquaint them with the system and activities of the college.



Alumni Report

The Narula Institute of Technology, Kolkata conducted its 2nd Alumni Meet on 26th of September, 2015 and needless to say it was a huge success. In the Alumni Meet of NIT Graduates, the Association President Ms.SagarikaChowdhury, called upon the fellow members to foster the junior students. The meet was well attended by more than 60 alumni ranging across various batches. Function started at 5.00 P.M. with lighting of the lamp by the NIT Principal Prof. (Dr.) M. R. Kanjilal. She blessed the alumni with his motivating words and extended a very warm, cordial and affectionate welcome to all the Alumni and their families. The Inaugural session was also attended by various Deans, Registrar, HODs, and faculty and staffmembers of NIT.

Many senior Alumni members like Mr. Rahul Dutta (1st batch), Mr.DibyadyutiChakrabarti (1st batch) and others in their address to the fellow members appreciated the growth of the NIT and also promised that they would interact with the students at short intervals in a team. This will not only help the pre-final and outgoing students in facing the interviews more successfully but this will help them realize the industry expectations.



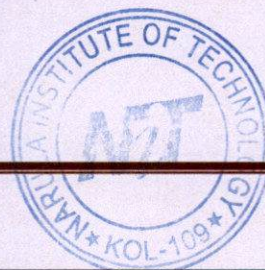
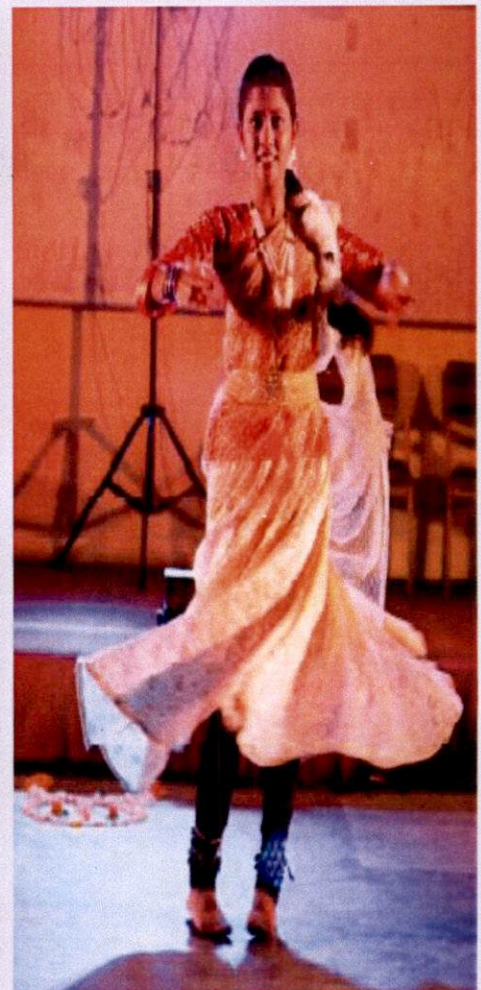
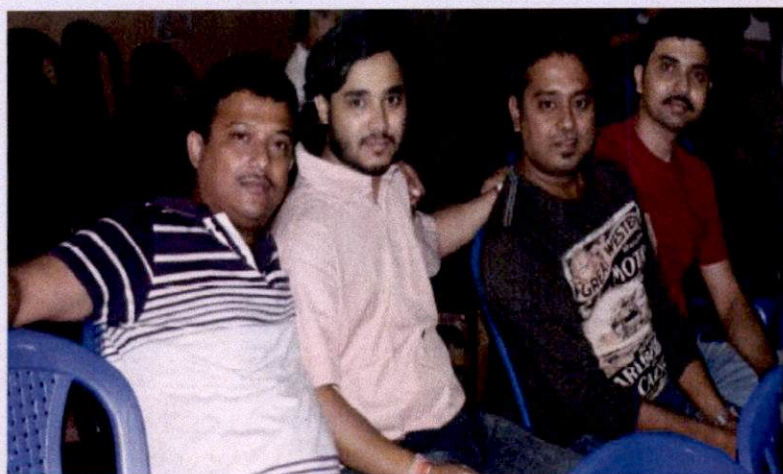
Summary

The President of Alumni association, Ms.SagarikaChowdhury welcomed the alumni and their family members in the campus and appreciated their zeal to assemble here. After lighting the lamp and officially inaugurating the ceremony, Prof.(Dr.) M.R. Kanjilal, Principal, NIT extends his warm welcome to each of the alumni members and their family . The Registrar of NIT Ms.Nidhi Singh also extended her warm gratitude to the members and be a part of the program till end.

The Alumni association planned to felicitate Mr.Taranjit Singh, MD, JIS Group. But due to some last minute urgency, He failed to attend the program, but blessed all for the grand success of the event. The association also felicitate Principal and Registrar of NIT with a 'Uttorio', flower bouquet and a memento. The meet started from 3:00PM onwards followed by Dinner with all the Alumni right from the first batch to the most recent batch.

Many of the HODs, Deans, Faculty and staff members of NIT attended the meet and enjoyed it with their family members.

The alumni member interacted with the departmental faculty member and HOD. In addition to this they have interacted with present students of the department. Then The Inaugural session was followed by a cultural programme by our students and as well as by the alumni. The 1st band of our Institute "SUKTARA" performed and the evening was magnificent. Many of the current students were also seen interacting with their pass out seniors and learning from their experiences. The sound and light was amazing. In all, the ambience was electric when people were seen chatting and enjoying themselves in groups.



Academic Tie-up with Asian Institute of Technology Bangkok

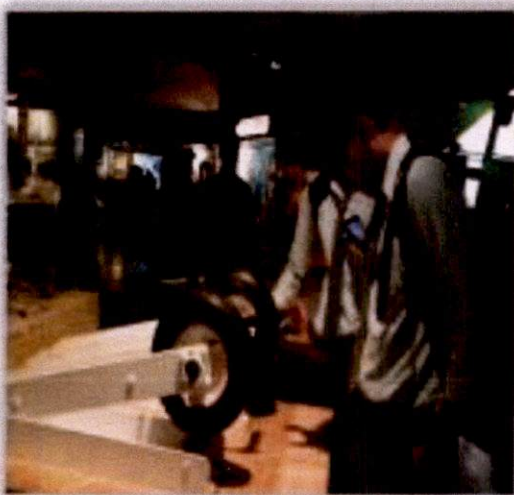
JIS Group Educational Initiatives had signed a Memorandum of Understanding with Asian Institute of Technology, Bangkok, to pursue, promote and reinforce cooperation in the common interests of teaching, training and research. The main objective of this union was to help the technologically rapt students pursuing their bachelor's degree in engineering to interact with qualified and committed professionals.

The collaboration aims to foster advancement in training, teaching, research and cultural understanding. Carrying forward this initiative, 2016 started with 17 students of Narula Institute of Technology (from EE, ECE, CSE, CE, ME and IT departments) selected through rigorous scrutiny and selection examination, getting the opportunity to explore this experience and knowledge at Asian

Institution of Technology, Thailand. Two faculty members were to guide and support these students. The students were imparted lessons on the following topics:

- Geographical Information System (GIS). Its applications and usage. importance of teamwork
- Augmented reality (AR) Computer Graphics
- Urban & Environmental Management. Computer Graphics
- How to give effective presentations





CHAPTER 4

INFRASTRUCTURE

DEPARTMENTAL LABORATORIES

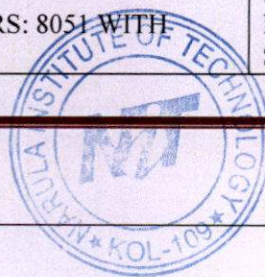
Dept Name	Lab Name	Name Of Equipements/ Software	Brief Description
CSE	316K	<ol style="list-style-type: none"> 33 HCL version PC Processor: Intel Core 2 duo E7500@ 2.93 GHz, 1066 MHz FSB, 3 MB L2 cache, Memory:1 GB DDR2 800MHz, Chipset: Intel G41, 250 GB SATA HDD, 22X DVD Writer, 15.6" TFT Monitor, HCL Multimedia Keyboard, HCL Optical Scroll Mouse 1 CISCO Catalyst 2950 Network Switch. 	Programming Lab
	316L	<ol style="list-style-type: none"> 34 ACER VERITON PC WITH INTEL PENTIUM G640 2.8 GHz PROCESSOR, 2 GB RAM, 500 GB HDD, 18.5" TFT Monitor. 1 ACER VERITON (with altered parts) PC with E7500 PROCESSOR, 1 GB RAM, 250 GB HDD, 18.5" TFT Monitor. CISCO Catalyst 2950 Network Switch. 	Networking and Operating System Lab
	316O	<ol style="list-style-type: none"> 30 HCL version PC Processor: Intel Core 2 duo E7500@ 2.93 GHz, 1066 MHz FSB, 3 MB L2 cache, Memory: 1 GB DDR2 800 MHz, Chipset: Intel G41, 250 GB SATA HDD, 22X DVD Writer, 15.6" TFT Monitor, HCL Multimedia Keyboard, HCL Optical Scroll Mouse 1 CISCO Catalyst 2950 Network Switch. 	Object Technology Lab
	316F	Computer Set-34 nos 1) HP Computer Set -31 Nos Intel Core 2 Duo 2.93 Hz G31 chipset MB 160 GB HDD 1 GB DDR2 RAM	DBMS Lab

		DVD RW, 15.6" Monitor 2) HCL Computer Set-3Nos Intel core2 Duo 2.93Hz G41 Chipset MB 250 GB SATA HDD 15.6" Monitor 3) Edge Switch-1 No Cisco Make[Catalyst2950] Software 1) C /C++ Compiler 2) Oracle 9i 3) Jdk	
	316H	Computer Set-33 nos. 1) Wipro Computer Set -1 Nos CPU E7500 Intel Core 2 Duo 2.93 Hz G41 chipset MB 320 GB HDD 1 GB DDR3RAM 19" TFT Monitor 2) Dell Computer Set-32 Nos CPU i3-4160T 3.10 GHZ 500 GB HDD 4GB RAM Dell TFL Monitor 3) Edge Switch-1 No Cisco Make[Catalyst2950] Software 4) C /C++ Compiler 5) Oracle 9i 6) Jdk	Programming Lab
	316R	1) HCL Computer set (Desktop PC): 18 nos <u>Processor:</u> AMD ALTHMONG 3800 plus processor <u>Memory:</u> 2 GB RAM <u>Chipset:</u> MSI Motherboard, 120 GB HDD, 16x DVD ROM, HCL Multimedia Keyboard, HCL Optical Scroll Mouse, 15" TFT HCL Monitor 2) Network Switch: 2 nos 16 port NET GEAR 24 port ZYXEL 1 VALRACK 2 patch panel Structured cabin 3) I/O Box: 34 nos D-Link DCEIOSMxxxxxx	M. Tech Lab



		Information Outlet Cat sc Single Software: Window XP,Fedora14, TC++, Visual Studio 6.0, MS-Office	
EIE	INDUSTRIAL INSTRUMENTA TION LAB EI591	1. FLOW METERS: ORRIFICE,DIFFERENTIAL TRANSMETER 2. CAPACITIVE LEVEL TRANSMITTER 3. BUFFLE FURNACE 4.VISCOSITY MEASUREMENT 5.MOISTURE MEASUREMENT 6.6 1/2 DIGIT MULTIMETERS, DIGITAL STORAGE OSCILLOSCOPE	BUFFLE FURNACE, MOISTURE MEASUREMENT , VISCOSITY MEASUREMENT CAN BE PERFORMED IN THIS LABORATORY. ELECTRONIC INDICATOR DISPLAY PLANELS ARE ATTACHED TO EVERY INDUSTRIAL SETUP. THE PROCESS PARAMETERS ARE INTERFACED WITH THE PERSONAL COMPUTERS WITH NATIONAL INSTRUMENT BASED DATA AQISITION CARDS. FURTHER DATA ANALYSIS CAN BE PERFORMED USING NI LABVIEW SOFTWARE.
EIE	SENSORS AND TRANSDUCERS LAB EI592	1. NATIONAL INSTRUMENTATION DATA ACQUISITION SYSTEMS 2. LABVIEW SOFTWARE 3. SMART SENSORS LIKE AD590,LDR, LOAD CELLS,CAPACITIVE TRANSDUCERS,	SENSORS AND TRANSDUCERS LABORATORY IS ONE OF THE SOFISTICATED LABORATORY

		LVTD 4.DIGITAL STORAGE OSCILLOSCOPE, MULTIMETERS, FUNCTION GENERATORS	OF ELECTRONICS AND INSTRUMENTA TION DEPARTMENT. THE LABORATORY IS DESIGNED ON THE CONCEPT OF VIRTUAL INSTRUMENTA TION. MEASUREMENT AND CALIBRATION OF VARIOUS SMART SENSORS WITH THEIR REQUIRED COMPLETE SETUP ARE PERFORMED AND THE NATIONAL INSTRUMENT DATA AQUISITION CARDS ARE INTERFACED WITH PERSONAL COMPUTERS. DATA ANALYSIS IS PERFORMED BY LABVIEW SOFTWARE IS INSTALLED IN THE PERSONAL COMPUTERS.
EIE	MICROPROCE SSORS AND MICROCONTR OLLER LAB (EI 492,EI692)	1. MICROPROCESSORS: 8085, 8086 WITH PERIFERALS LIKE SERVO MOTORS,STEPPER MOTORS,SEVEN SEGMENT DISPLAYS 2. MICROCONTROLLERS: 8051 WITH PERIFERALS LIKE	LED MODULE, 7-SEGMENT DISPLAY MODULE, STEPPER MOTOR & SERVO MOTOR



		SERVO MOTORS, STEPPER MOTORS, SEVEN SEGMENT DISPLAYS 7. PERSONAL COMPUTERS	MODULE ETC EXPERIMENT CAN ALSO BE PERFORMED ON MICROCONTROLLERS (8051) WHICH ARE INTERFACED WITH PERIPHERALS LIKE LED MODULE, 7-SEGMENT DISPLAY MODULE, STEPPER MOTOR & SERVO MOTOR MODULE ETC. IN THIS LABORATORY SEVERAL MICROCONTROLLER BASED PROJECTS ARE DESIGNED AND IMPLEMENTED
ME	WORKSHOP	Centre Lathe	4'-6" Bed length, Semi Norton type Centre Lathe. High precision semi automatic lathe.
		Drill Machine	25 mm Drilling Capacity
		Radial Drill Machine	25 mm capacity; Geared
		Shaping Machine	12" stroke length; V-belt power transmission, 1.5 HP
		Universal Milling Machine	U.M.M having longitudinal feed of table automatic (30" 7")
		Power saw	6" dia cutting capacity
		Bench Grinding	73.33kw; 50HZ; 1.4



		Amps
	Arc Welding Setup	350A; 40-60V
	Spot welding setup	Resistance Welding
	MIG welding setup	MIG 250
	Name Of Equipements/Software	Brief Description
	Sand Rammer	Preparation of Moulding Sand Kelsons
	Compression Machine	Compressibility test of moulding Sand Kelsons
	Permeability test	Permeability test of Moulding Sand Versatile Equipment
	Bomb Calorimeter	Capacity of bomb calorimeter- 650cc, working pressure-200atm.
	Multicylinder Petrol Engine	ISUZU make, four stroke, four cylinder automotive petrol engine developing 10 BHP at 2000 rpm.
	Catalytic Converter	Ribbed body OEM heat shield catalytic converter with honey comb catalyst.
	MPFI system	Self started MPFI engine system with ECM box circuit.
	Electric Dynamometer	Type AV1, Bore: 87.5 mm, Stroke: 110 mm, R.P.M: 1500, BHP: 5, Lub oil Capacity: 3.7 ltr
	Valve timing diagram Study apparatus	
	Capacity of bomb calorimeter- 650cc, working pressure- 200atm.	Finned tube air cooled condenser with fan & thermostatic expansion valve, refrigerant -R134a.
	ISUZU make, four stroke, four cylinder automotive petrol engine developing 10 BHP at	43 Litrs, forced convection type with semi conductor MS & fibre cooler.

		2000 rpm.	
		Ribbed body OEM heat shield catalytic converter with honey comb catalyst.	Compressor- using refrigerant R-134a, Finned tube-200x200mm.
ME	FLUID MECHANICS LAB	Determination of Hydraulic co efficient	Dia 10mm orifice Measuring tank 0.5*0.4*0.3mm
		Calibration of orifice and venturimeter	Venturimeter: Inlet dia 20mm, throat 10mm Orifice meter inlet dia 20 mm Vena contracta 10 mm
		V-Notch	Rectangular notch// Tringular V 90 degree
		Centrifugal pump	1 HP; 300*400*400mm tank
		Reciprocating Pump	Casing:Stainless steel; Runner: Cast Bronze Shaft: Stainless steel Rated Supply: 40 meters ; Discharge 400 rpm, Normal Speed 1000 rpm
		Pelton turbine	Spiral Casing Cast Iron Runner Bronze; Guide Vane Mechanism Plated EN 8 Steel
		Francis Turbine	Size 50X15 Area ratio: 0.35



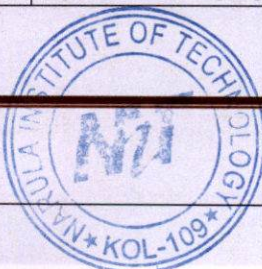
HEAT TRANSFER		Venturimeter: Inlet dia 40 mm Throat dia 23.66 mm
	Hydraulic RAM Test RIG (Closed Circuit)	Two cylinders with 45 cm height and dia 15 cm. With nine pipes attached and dia 10 mm
	To verify Bernoulli's theorem	Weight carried 4.25kg
	Metacentric height of a floating vessel	Casing:Stainless steel; Runner: Cast Bronze Shaft: Stainless steel Rated Supply: 40 meters ; Discharge 400 rpm, Normal Speed 1000 rpm
	Double stage air compressor test RIG	Double cylinder double stage with displacement of about 250 LPM and to work again a max pressure of 10 kg/sq. cm
	Combine throttling and separating calorimeter	Boiler delivering a continuous flow of steam at min pressure of 4kg/cm ² Size: 525 mm X 450 mm height
	Thermal conductivity of metal bar testing set up	Metal bar- dia: 25 mm with 8 thermocouple
	Thermal conductivity of insulating powder	Inner sphere dia: 100 mm And Outter sphere dia: 200 mm
	Equipment for heat transfer from pin fin	Chanel 150 mm X 100mm X 1000 mm with three fins of MS brass and Al
	Emissivity measurement apparatus	Test plate and black plate- 160 mm dia each,
	Parallel flow and counter flow heat exchanger	Inner Cu tube- I.D 12.7 mm and outer G.I pipe – I.D 15 mm and 1.5 m length, capacity of geyser 3kN



	ADVANCE MANUFACTURING	6 Axis Robot	Axis 6 Nos Link 1 300 mm Link 2 300 mm Timing belt drive Proximity Switch 50kg 500mm/min 1kg
	MATERIAL TESTING LAB	Universal testing machine with accessories	Loading unit with 1 jaw set for the range 10-25 dia Connection pipes (kept inside the control unit)
		Impact testing Machine	For IZOD and Charpy test capacity 170 and 300 Joules respectively , Model PMT 8
		Torsion Testing Machine	For rods Capacity 50 Kg meter, Model PMT 9d Loading unit with Gear box
		Closely Coiled Helical Spring testing Machine	Capacity 200 kg manually operated for tension & compression of Helical spring
		Fatigue testing machine	Max bending moment 200-400 kg cm, Testing dia-8mm, length - 226mm, rotating speed-4200 rpm,
	HEAT TREATMENT FURNACE	To change the material property of a material	Temperature Range: 1000°C / 1200 Deg.C. Supply : 230V Ac, 50 Hz, Single Phase.
	THERMAL POWER	Vertical water tube	Study of Vertical water tube boiler



ENGINEERING LAB	boiler	
	Vertical fire tube boiler (Cochran)	Study of Vertical fire tube boiler (Cochran)
	Horizontal fire tube boiler (Lancashire)	Study of Horizontal fire tube boiler (Lancashire)
	Flash and fire point of diesel and lubrication oil.	Cleveland Apparatus (Open system)
	4-Stroke diesel engine	Determination of BP, IP and FP at different load Single cylinder, water cooled, developing 5 H.P at 1500 rpm
	4-Stroke petrol engine	Determination of BP, IP and FP at different load Displacement-197cc Engine Oil Capacity-0.7 Engine Type-Single Cylinder, 4-Stroke Fuel-Petrol / Kerosene Max. Output-4.0 HP Fuel Tank Capacity (L)- 0.4 / 3.9.
	Bomb Calorimeter	Determination of calorific value of fuel Capacity of bomb calorimeter-650cc, working pressure-200atm.
	Bomb Calorimeter	Determination of calorific value of fuel Capacity of bomb calorimeter-650cc, working pressure-200atm.
	4-Stroke diesel engine with electrical load brake	Determination of BP, IP and FP at different load Single cylinder, water cooled, developing 5 H.P at 1500 rpm, Loading Device –coupled with 3.0 KW DC single phase wire



			wound rheostat.
		4-Stroke diesel engine(Model)	Study of 4-Stroke diesel engine(Model)
		4-Stroke petrol engine(Model)	Study of 4-Stroke diesel engine(Model)
		2-Stroke petrol engine (Model)	Study of 2-Stroke petrol engine (Model)
ECE	Basic Electronics Engineering Laboratory	Each of the benches are fully equipped with: Signal sources Power supply Measuring instruments like digital multimeter, C.R.O etc.	Well designed laboratory manual / instruction sheets are provided to students at the beginning of the session for a particular lab. Laboratory is maintained and conducted by well trained technical supporting staff under the supervision of the faculty members. Most of the technical staffs have undergone first aid and fire fighting training.
	Digital Electronics Circuit Laboratory	C.R.O 25 MHZ..Dual Trace Function Generator. 1 MHZ. Power Supply.(0 --- 30V, +12 -0 -- -12v. +5volt). Multimeter. (0 ---20M ohm, 0-1000 DC Volt, 0--700A.C volt, 20micro 10 Amp.) IC Tester (Digital and Linear)	This lab is used for 2nd year of Electrical, EIE and IT Students in Odd semester and in Even Semester is used for 2nd year ECE students. Approximate area of this Lab is 2000 Sq.ft and its location at 2nd floor.room no-312 A.
	Analog Electronic Circuits Laboratory	Function generator(4MH z,30Vp-p) Power supply 2=	Analog Electronic Circuits laboratory is situated 2nd floor, room no. 312B.Geometric area of

		<p>channel(0-30V), 3A with maximum current control facility, 1 channel fixed 5V, 3A</p> <p>Cathode Ray oscilloscope 2-Channel, 30MHz.</p> <p>Measuring instruments like advanced digital multimeter, LCR meter etc.</p> <p>Facilities of soldering and disordering, and other testing equipments like DSO, Power meter etc are there which are mainly used for project and some innovative experiments.</p> <p>Digital Storage Oscilloscope (100 MHz)</p>	<p>this lab is about 1250 square feet. According to present curriculum B-Tech (ECE) 4th Semester Students perform experiments on Analog Electronic Circuits Laboratory</p>
	Analog Communication Laboratory	<p>Signal Generator (Direct Digital Synthesis Signal Generator), 3MHz, 1 Channel, Output Voltage $\pm 20V_{pp}$ in 50Ω Load.</p> <p>10MHz – Modulation Function-Pulse Generator, Output Voltage $\pm 20V_{pp}$ in 50Ω Load.</p> <p>Cathode Ray Oscilloscope (CRO), 100MHz, 2 Channels, 4 Trace</p>	<p>Lab used in 5th semesters, Student of ECE departments are using this lab, Approximate area of the lab is 1250sq ft, Location of the lab is 2nd Floor and Room No-310B, Average no of student per session 30 to 35, No of setup available is 8, No of students per setup is 4.</p>

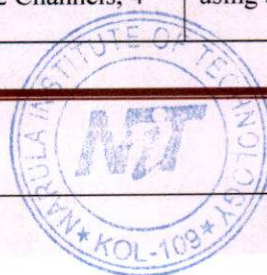


		<p>Cathode Ray Oscilloscope (CRO), 50MHz, 2 Channels, 4 Trace</p> <p>Digital Storage Oscilloscope (DSO), 50MHz, 2 Channels, 4 Trace, 250MSa/s Real-Time and 25GSa/s Equivalent-Time Sampling</p> <p>Digital Storage Oscilloscope (DSO), 100MHz, 2 Channels, 4 Trace, Real-Time Sample Rate 1.0SG/s</p> <p>Spectrum Analyser Frequency Range: 150KHz to 1050MHz 4½ Digit Display: Centre & Marker Frequency, 0.1MHz Resolution Amplitude Range : -100dBm to +13dBm Filters : 20KHz, 400KHz & Video Filter AM /FM Demodulator Included Full Range Built-in Tracking Generator : 0.15MHz to 1050MHz.</p> <p>Multiple Power Supply, A : 0-30 V, 1 A continuously variable by means of coarse & fine controls, 5 V, 1 A Adjustable from 4 V - 6 V, 0 - ± 15 V, 1 A adjustable by means of coarse & fine</p>	
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		controls Major Equipment: Digital Storage Oscilloscope (DSO), 50MHz, 2 Channels, 4 Trace, 250MSa/s Real-Time and 25GSa/s Equivalent-Time Sampling Digital Storage Oscilloscope (DSO), 100MHz, 2 Channels, 4 Trace, Real-Time Sample Rate 1.0SG/s Spectrum Analyser Frequency Range: 150KHz to 1050MHz 4½ Digit Display: Centre & Marker Frequency, 0.1MHz Resolution Amplitude Range: -100dBm to +13dBm Filters : 20KHz, 400KHz & Video Filter AM /FM Demodulator Included Full Range Built-in Tracking Generator : 0.15MHz to 1050MHz.	
	Microprocessor and microcontroller Lab	8085 Microprocessor Trainer Kit. Technology NMOS, Frequency, 3MHz. 8051 Microcontroller Kit, 12MHz, 32bit Seven Segment Display	This lab is used for ODD Semester EE 3 rd Year and ECE 3 rd Year its Approximation Area is 1800 sq. ft . and Location at 2 nd floor Room no – 311. Generally we are Conducting the Lab,Average of student per Session is 30 nos. and Experimental



		<p>interface With Microprocessor.</p> <p>DC Motor Interface VMC 8501</p> <p>StepperMotor Interface VMC 8501</p> <p>Hex Keyboard Interface Normal</p> <p>Switch LED Buzzer Interface.</p> <p>C.R.O 25MHz, and 50MHz 4 trace, 2-ch oscilloscope</p> <p>Function generator 1 MHz , mplitude with - 20db attenuation 100mv ~1v</p> <p>Simulator using pc</p>	Setup is 8 nos.
	Digital Signal Processing Laboratory	<p>Desktop PCs with LAN connection.</p> <p>DSP Starter Kit TMS320C5416 (Texus Instruments)</p> <p>DSP Starter Kit, TMS320C6713 (Texus Instruments)</p> <p>MATLAB 7.0.1 (Math works)</p>	<p>Digital Signal Processing laboratory is situated 2nd floor, room no. 316B. Geometric area of this lab is about 900 square feet. According to present curriculum B-Tech (ECE) 6th Semester Students perform experiments on Digital Signal Processing Laboratory. Digital Signal Processing (DSP) Laboratory can be described as the processing of signals using digital techniques or digital computers.</p>
	Digital Communication Laboratory	<p>Digital Storage Oscilloscope (DSO), 50MHz, 2 Channels, 4</p>	<p>This Lab is used in 6th semesters, Student of ECE departments are using this lab, Approximate area of</p>



		<p>Trace, 250MSa/s Real-Time and 25GSa/s Equivalent-Time Sampling</p> <p>Digital Storage Oscilloscope (DSO), 100MHz, 2 Channels, 4 Trace, Real-Time Sample Rate 1.0SG/s</p> <p>Spectrum Analyser Frequency Range: 150KHz to 1050MHz 4½ Digit Display: Centre & Marker Frequency, 0.1MHz Resolution Amplitude Range: -100dBm to +13dBm Filters : 20KHz, 400KHz & Video Filter AM /FM Demodulator Included Full Range Built-in Tracking Generator : 0.15MHz to 1050MHz.</p>	<p>the lab is 1250sq ft, Location of the lab is 2nd Floor and Room No-310B</p>
	Electromagnetic Theory and Transmission Lines Laboratory	<p>Microwave Horn Antenna Test Bench, X Band.</p> <p>Klystron based Microwave Wave guide test bench (Accessories:- Klystron Power supply, Klystron Mount, Klystron Tube, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount, VSWR meter and BNC</p>	<p>The laboratory located in the 2nd floor of the main building and housed in the room No. 306. The size of the laboratory is approximately 25x35 sq ft</p>



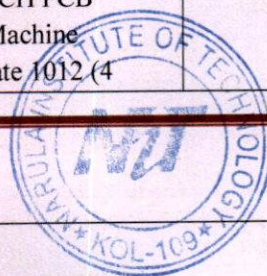
		<p>to BNC cable). X Band.</p> <p>Gunn Based Microwave Wave guide test bench</p> <p>(Accessories:- Gunn Power supply, Gunn Oscillator, PIN modulator, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount, VSWR meter and BNC to BNC cable).X Band.</p> <p>Klystron based Microwave Test Bench for Klystron Characteristic(Accessories:- Klystron Power supply, Klystron Mount, Klystron Tube, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount, and VSWR meter BNC to BNC cable).X Band.</p> <p>Microwave test Bench for Calibration of Attenuator(Accessories:- Klystron Power supply, Klystron Mount, Klystron Tube, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount, VSWR meter and BNC to BNC cable).X Band.</p> <p>Microwave test Bench for Calibration of X-tal</p>	
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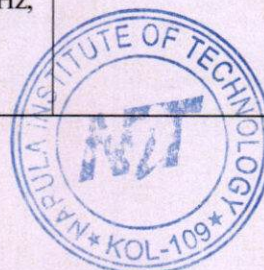
		<p>Detector(Accessories:- Klystron Power supply, Klystron Mount, Klystron Tube, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount, VSWR meter and BNC to BNC cable).X Band.</p> <p>Microwave test Bench for Measurement of Coupling Co- efficient(Accessories:- Klystron Power supply, Klystron Mount, Klystron Tube, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount, Multi-hole Directional Coupler, VSWR meter and BNC to BNC cable).X Band.</p> <p>Microwave test Bench for Measurement of Scattering Matrix(Accessories:- Klystron Power supply, Klystron Mount, Klystron Tube, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount MAZIX TEE, VSWR meter and BNC to BNC cable).X Band.</p> <p>Microwave test Bench for Measurement of</p>	
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		<p>Unknown Impedance(Accessories :</p> <ul style="list-style-type: none"> - Klystron Power supply, Klystron Mount, Klystron Tube, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount, Attenuator, Movable short, VSWR meter and BNC to BNC cable).X Band. <p>Microwave test Bench for Measurement of Phase Shift(Accessories:- Klystron Power supply, Klystron Mount, Klystron Tube, Circulator, Frequency Meter, Attenuator, Slotted Section with Probe, Detector mount, Phase Shifter, Movable Short, VSWR meter and BNC to BNC cable).X Band.</p> <p>Spectrum Analyzer with Tracking Generator.</p> <p>150Khz-1000Mhz Power Meter, X Band.</p> <p>Power Sensor,X Band.</p> <p>Machine</p> <p>Proto-UV Double sided UV exposure with suction motor</p> <p>Proto Dye-Developer</p> <p>Proto Drilling 3000</p> <p>Proto-ETCH PCB etching Machine</p> <p>Micro plate 1012 (4</p>	
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		parts) Artwork Light Table Dry Film Laminator (LAM-1200) Ammonical Etching Machine PCB Searing Machine RTM-10 Roller timing Machine Pro-Developer Stripper	
	Project Lab	Function generator- (Scientech) Variable Power supply: fixed and variable variety with different current rating. Make – Elnova, Scientech etc. Some of the power supply is in use designed and fabricated by students and technical staff of the department. Digital multimeters (The general objective of the project lab is to apply the theoretical knowledge to solve the real life problems. It is also a pathway to enhance for employment and self- employment potential of graduates and enhance innovativeness.
		Mastech-M3900) Oscilloscope Cathode Ray Oscilloscope. (25MHz, 30 MHz, scientech) Digital Storage Oscilloscope. (100MHz, scientech)	

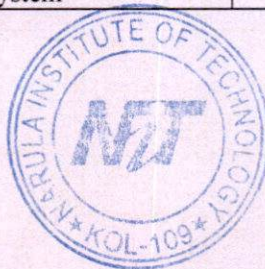


CA	316P	<p>27 Acer Desktop G630 with 12.5" TFT Intel Pentium Dual Core G630, RAM - 2GB HDD 500 GB SATA 7200 rpm, standard keyboard, Mouse out 12.5" TFT</p> <p>14 Processor - Intel Core2 duo e7500 @2.93 GHZ, 1066 MHZ, FSB, 3MBLL Cache Memory 1GB DDR2 800 MHZ , chipset Intel G41, 250GB sata HDD, 22 X DVD writer, HCL multimedia Keyboard, HCL Optical Scroll Mouse, 15.6" TFT monitor</p>	
	316Q	<p>1 Processor - Intel Core2 duo e7500 @2.93 GHZ, 1066 MHZ, FSB, 3MBLL Cache Memory 1GB DDR2 800 MHZ , chipset Intel G41, 250GB sata HDD, 22 X DVD writer, HCL multimedia Keyboard, HCL Optical Scroll Mouse, 15.6" TFT monitor</p>	
		<p>24 INTEL Core 3rd Generation/ 4GB RAM / 500 GB HDD/ USB K/B/USB Mouse/18.5" DELL LED Wide Monitor; DELL OPTIPLEX 3020;</p>	

CE	Concrete Laboratory	Compression testing machine Concrete mixer machine Motor vibrator Smith Rebound Hammer.	The main focus of Concrete laboratory is centred upon different areas like developing fundamental knowledge on concrete making materials, its production, quality control and monitoring health of reinforced concrete structures.
	Soil Mechanics Laboratory	Consolidation test Apparatus California Bearing ratio test apparatus Unconfined Compression Tester Compaction apparatus	The primary objective of soil mechanics laboratory is to excel the in depth knowledge on characteristics of soil towards design of foundation and for many civil engineering applications.
	Highway Engineering Laboratory	Los Angeles Abrasion testing machine Marshall stability test apparatus Benkelman beam apparatus Ring & Ball Apparatus Pen sky marten flash point apparatus	The laboratory offers the hand by handy solutions in testing road materials based on local needs by means of Los Angeles apparatus, Crushing strength apparatus, Bitumen testing apparatus. Mix design of bituminous concrete for specified requirements is also performed.
	Environmental Engineering Laboratory	BOD incubator Bacteriological Incubator COD apparatus Spectrophotometer UV tube visible Laminar Air Flow Machine Gutzeit generator	Lab facilities are specially designed for testing and analysing the municipal and hospital wastewater. Testing of drinking water parameters including Arsenic is available in the laboratory. Recently



			department has procured a number of modern and sophisticated computer operated instruments for analysing drinking and waste water parameters.
	Surveying Laboratory	Automatic level fitted with tripod stand o Electronic digital theodolite o Transit vernier theodolite o Electronic Total Station	Surveying instrument with necessary accessories are provided from conventional survey to modern survey by means of chain survey, transit vernier theodolite, automatic level, dumpy level, digital theodolite and electronic theodolite - total station.
	Geology Laboratory	Petrology microscope Ore microscope Geomorphology model	Geology laboratory puts emphasis on identification of crystals, rocks and minerals with the help of hand specimens, petrology microscope, ore microscope, geo-morphology model clinometers. Interpretation on Geological map India is also illustrated in detail.
English	Language lab 1	CACM ISIL LAB 40 User Consoles +1 teacher Console PA system	Lab designed by IIT KGP in 2004 Upgraded various times
	Language Lab 2	OELL DIGITAL LANGUAGE LAB 40 User Consoles +1 teacher Console PA system	Designed by Orell



HOSTELS

NIT Hostels is A Home Away From Home is a hub of academic, sports, cultural and social activities. It is said that home is sweet. But even then life at home cannot be compared to the life in a hostel.

NIT provides separate hostel for boys and girls.

Each hostel has spacious and semi furnished rooms offering a pleasant environment. The hostels are well- equipped with spacious rooms along with other facilities like: **Wi-Fi, water purifier, water cooler and provision for indoor as well as outdoor games.** These hostels also have home like dining facilities that offer fresh & nutritious food to the students. Hostels give an environment to create most effective conditions for student development. **The hostels are located both within the campus and off the campus thus offering secured abode.** Hostel also provides transportation at fixed timings to maintain security. The hostel is designed in such a way as to provide optimum utilization of student's time for their overall personality development.



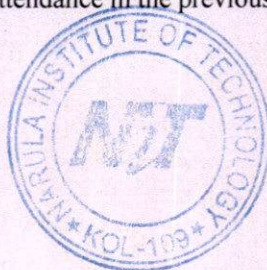
NAME OF FIVE HOSTELS , DETAILS AND FEES STRUCTURE

NAME OF HOSTEL	ADDRESS	GIRLS / BOYS NO OF SEATS	NAME OF WARDEN AND CONTACT INFO	FEE STRUCTURE
BOY'S HOSTEL 1 / NIT	46 Nilgunj Road, Kol109	85	SwapanMahato 8159817157	@RS 33000 PER SEMESTER
BOY'S HOSTEL 2 / JISU	5no Railgate, Paschimpalli, Agarpara,Kol 109	26	RajbahadurChetri 9836983065	
BOY'S HOSTEL 3/NIT	32 DP Nagar Sripally, Belgharia, Kol 56	13	RajuBaigari 9732450502	

GIRL'SH OSTEL1 /CAMPUS	NIT,109, Nilgung Road	40	Putul Roy Singh 9330522930	@RS 33000 PER SEMESTER
GIRL'SH OSTEL2/ NIT	27,BT Road, Prasadnagar, Kol58	28	Pranati Mishra 9330522930	
GIRL'SH OSTEL3 NIT/OIN DRILLA	15 Nilgunj Road, Agarbara Kol114	28	Pranati Mishra 9330522930	
GIRL'SH OSTEL4/ JISU	ManasaAppts, Dp Nagar, Belgharia, Kol56	18	Pranati Mishra 9330522930	
GIRL'SH OSTEL5/ JISU	Tarapukur, Paschimpally, Agarpara ,Kol109	11	Pranati Mishra 9330522930	

ADMISSION in Hostels

- Seats available for first year students are 250-300 including all hostels.
- Allotment of seats as per the norms laid down by the college.
- Only those students whose parents do not reside in or around the Capital Region OF KOLKATA are eligible for admission to hostel.
- Resident students are re-admitted to the hostel based on the following criteria:
- • CGPA of 6 • 67% minimum college attendance in the previous academic session



MESS AND CANTEEN FACILITIES

Mess facility is an integral part of the campus which provides nutritious homely food to all hostellers, day scholars, faculty & staff members and visitors. It provides 4 meals a day. Quality food is prepared under strict hygienic conditions. The food is served in the dining area keeping all the sensitivities in consideration.

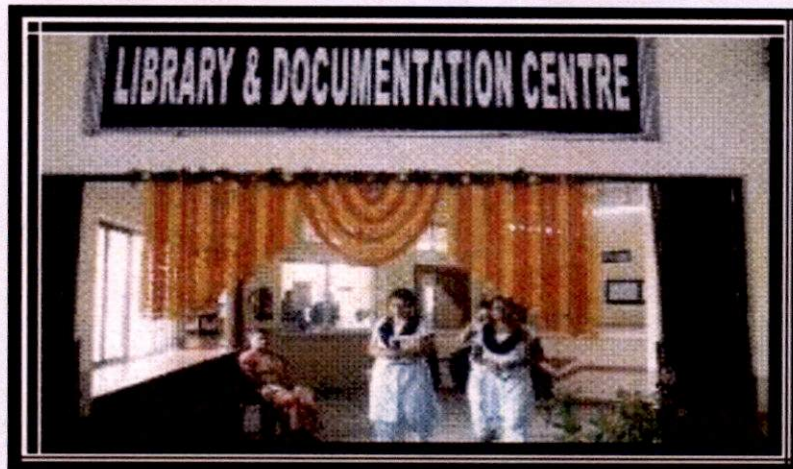
- All the hostel mess serves Vegetarian/Non- Vegetarian Food only and operates in self-service mode.
- The menu of the items is designed considering the requirements of the students and nutrition is added to make it healthy and complete.
- We offer morning tea with regular breakfast, lunch, evening snacks and tea, dinner and milk to all hostellers.
- The Canteen facility is available in all the campuses of Hostels which comprises of healthy & delicious variety of VEG/NON-VEG snacks & food.

MEDICAL FACILITIES

- Whenever needed, HOSTELLER may utilize medical services provided at the SAGAR DUTTA MEDICAL COLLEGE AND HOSPITAL.
- The college doctor is available from 11:00 a.m. - 2:00 p.m. on the weekdays.
- The medical counselor is available twice a week (on Tuesdays & Thursdays) from 1:30 p.m.- 3:30 p.m



Library & Documentation Centre



Mission, Vision & Policy

The mission, vision & policy are same as with the Institution's mission, vision & policy.

Goal

The goal of the Library & Documentation Centre of the Institute to create and sustain an information environment that supports the educational and research needs and enables learning and advancement of knowledge of the Institution community.

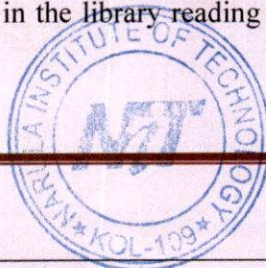
Administration

The library is managed by the leadership of the Librarian who is advised and supported by the Library Committee.

Library Hours

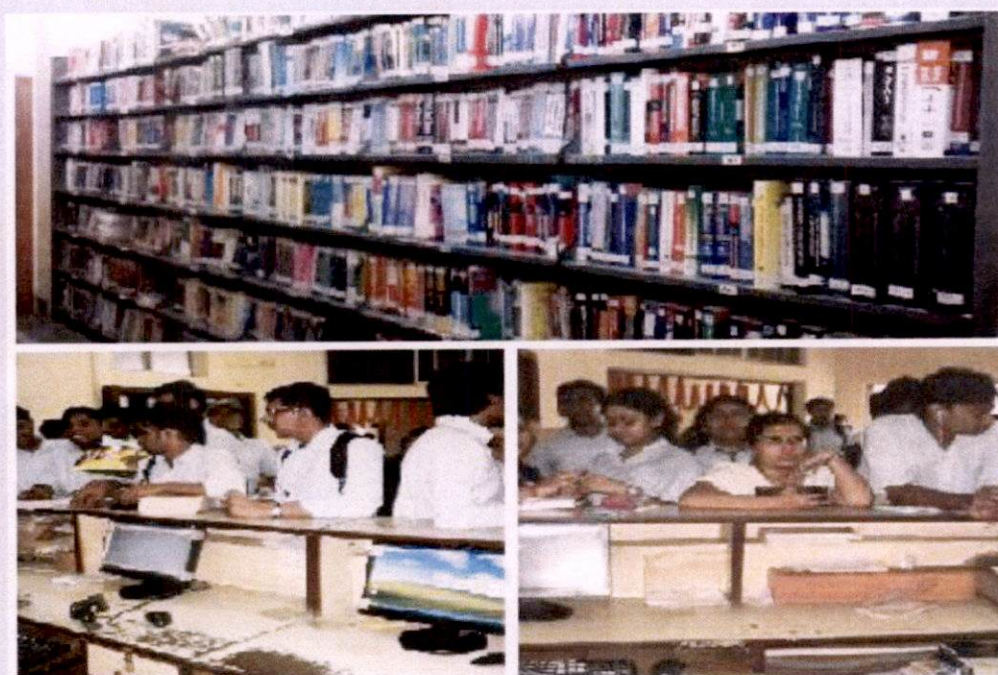
From 8 am to 8 pm on Monday to Friday & 9.30am to 1.30pm on Saturday.

The computing & e-mail facilities are available in the library reading room with 10 computers connected with OPAC.



Library Floor Area

The different sections of the library alongwith their floor areas are given as follows:



Library services beyond curricula

The library always encourage the reading beyond course curricula. Some examples of such initiatives are:

- It provides access to internet to develop self learning process of the student.
- Through departmental libraries, it encourages the R & D initiatives of the student.
- The course materials of Infosys Campus Connect are readily available for the students in the departmental libraries.
- Library has good resources on soft skill development and aptitude tests.



Library Computerization

The library operations are computerized with LibSys (Library management software) as well as software prepared by Hash Technology Pvt. Ltd. The library maintains a barcode based circulation system for catering quick service to the users. The departments are well connected with the OPAC facility.

Digital Library**E-Books from leading Publishers**

- ✓ 784 e-Journals From IEEE ASPP & Science Direct
- ✓ 1,20,000 e-books, 7,000 e-journals, 5,000 e-movies, 4,000e-newspapers (Through British Council)
- ✓ Inter Library Loan from British Council Library
- ✓ VCDs, multimedia CDs, presentations.
- ✓ Training material (CD, Hard copy)
- ✓ E-learning repository of 1800 GB
- ✓ 4,09,594 videos of 12482 subjects
- ✓ NPTEL Videos & Lecture Notes
- ✓ Self-learning material (CD, Hard copy)



MEDICAL CENTRE

- The institute has an exclusive medical centre equipped with all facilities for providing first-aid and first hand medical treatment. The room has medical beds for emergency cases. A professional doctor is available during college hours for taking care of any emergency.
- Free medical check-up drives are arranged from time to time, which includes eye testing and a thorough check up of salient features like Blood pressure, ECG and diabetes.
- The centre plays a pivotal role in extending nursing facilities.



Chapter 5

ACADEMICS

Programmes offered

Mechanical Engineering (ME) - 60 Seats
Computer Science & Engineering (CSE) - 120 Seats (NBA Accredited)
Electronics & Communication Engineering (ECE) - 120 Seats (NBA Accredited)
Information Technology (IT) - 60 Seats (NBA Accredited)
Electrical Engineering (EE) - 120 Seats (NBA Accredited)
Civil Engineering (Civil) - 120 Seats (NBA Accredited)
Electronics & Instrumentation Engineering (EIE) - 60 Seats

POST GRADUATE (FULL TIME): M. TECH, MCA, MBA (2-YEAR)

Computer Science & Engineering (CSE) - 18 Seats (NBA Accredited)
Electronics & Communication Engineering - 18 Seats (NBA Accredited)
Electrical Engineering - Power Systems - 18 Seats (NBA Accredited)
Civil Engineering - Structural Engineering - 18 Seats
Master of Computer Application (MCA) - 60 seats
Master of Business Administration (MBA) - 60 seats

DIPLOMA ENGINEERING (FULL TIME / AICTE APPROVED) (3-YEAR)

Electronics & Telecommunication Engineering (ETCE) - 60 seats
Civil Engineering (CE) 60 seats
Electrical Engineering (EE) 60 seats



Result Publication & Analysis

Evaluation and Assessment

Evaluation of Theory Papers (70 marks)

All appointment for examination of answer scripts were awarded to external faculty. After examination answer scripts were distributed for manual evaluation to external faculty only. Marks foils in triplicate for each subject was filled up by the external faculty after evaluation and signed. All logistic operation for distribution and collection of answer scripts were done by staff under department of COE. College vehicles were used for delivery and collection of answer scripts.

Scrutineers were appointed from internal faculty members to scrutinize all answer script packets. All scrutiny was carried out inside department of COE. Scrutiny report for each packet was signed by the respective faculty member.

For distribution to Head Examiners, 10% of the answer script packets were randomly selected and allotted for Head Examiners. For re-evaluation by Head Examiners, the tabulated sheets and scrutiny reports were provided to the Head Examiners. All such re-evaluation was carried out by the Head Examiners inside the department of COE.

Internal Marks for Theory Papers (30 marks)

The internal marks were awarded by the internal faculty for the respective courses conducted by them as follows:

Average of two Slot Tests: 15 marks

Assignment & Quiz: 10 marks

Attendance: 5 marks

Marks foils in triplicate for each subject was filled up and signed by the internal faculty for internal marks and submitted to the department of COE.

Evaluation of Practicals / Sessionals (100 marks)

For the Semester Examination of Practicals / Sessionals, external examiners were appointed.

In the semester examination of each laboratory practical course, the course teacher had assigned experiments to be conducted by groups of 4 or less number of students after holding a lottery. The assessment of the student performance for experiment was done in consultation with the external examiner (40 Marks). Viva-voce was conducted in presence of the external faculty and the course teacher. The assessment of student performance in viva-voce was done by each internal faculty in consultation with the external faculty (20 marks).

The course teacher had awarded the marks for student performance in laboratory classes based on the Continuous Evaluation sheets for each student (40 Marks).

For Sessional items where the formal Institutional contact hours are not specified, (viz. Online courses, Internships, Co-curricular/Extra-curricular activities etc.), or there are no formal End-semester examination of the written kind, (viz. Comprehensive Viva-voce, Seminar, Industrial Visits, etc.), an External Expert of the relevant field was appointed. For all items under these categories, assessment of student performance in viva-voce was done by the internal faculty in consultation with the external expert (100 marks).

Marks foils in triplicate for each subject was filled up and signed by the internal faculty for the practical / sessional marks and submitted to the department of COE. A summary of evaluation for theory papers has been given below.

Summary of Evaluation of Theory Papers for Session 2015-16		
Description	ODD Semester	EVEN Semester
Number of Answer scripts	14723	14531
Number of Evaluators (External)	60	59
Number of Head Examiners (Internal)	30	30

Result Publication

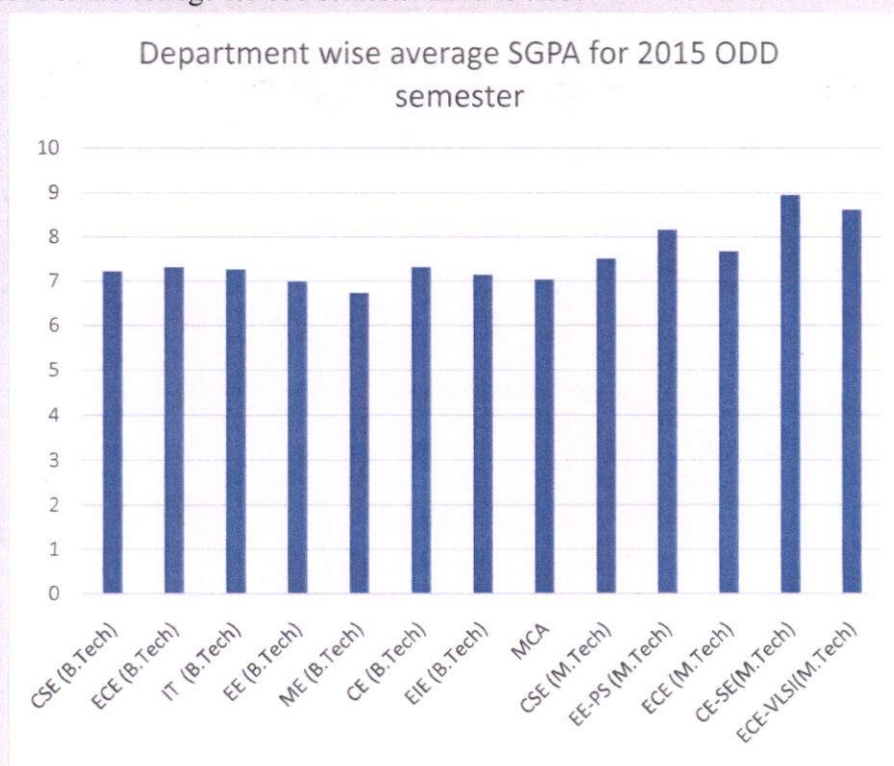
Two copies of marks foils were handed over to an external agency for data entry and result processing. After data entry, these marks foils are returned to department of COE. After result processing, TR sheets were sent by the external agency vide email to COE. The result from the TR sheets were verified and summarized at department of COE. Before publication of results of each semester, a meeting of the Board of Examination was conducted and the summary of the results were discussed. After verification consent was given to the external agency for online result publication. After online publication, semester grade cards of all students were printed by the external agency and the same were collected by staff from department of COE and brought to department of COE for distribution to the students.



Result Analysis

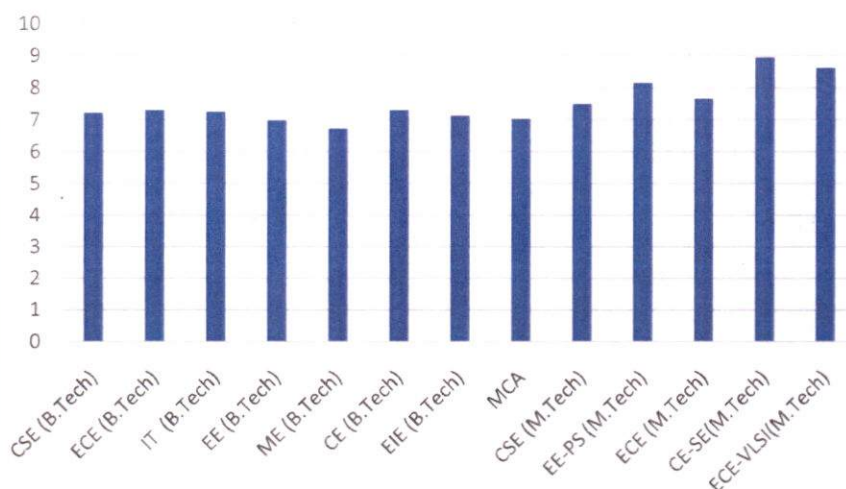
Department wise SGPA analysis of ODD and EVEN semester is presented here.

The average SGPA of the college for odd semester 2015 is 7.53.



The average SGPA of the college for even semester 2015 is 7.58.

Department wise average SGPA for
2016 EVEN semester



Average Pass percentage of final year students:

Student Appeared	Student Passed	Pass Percentage
732	710	96.99%

Grievances Reported by Students

Answer Script Scrutiny by Students

Notices inviting application for post-publication scrutiny (PPS) from students were issued within 7 days of publication of result. Students not satisfied with the grades, could apply for scrutiny of answer script of specific subjects by filling up a prescribed format and submitting the same within a time window specified in the notice. In presence of the faculty who scrutinized the answer scripts after evaluation, students were permitted to scrutinize a answer script. The details regarding students who submitted PPS applications in the academic year 2015-16 are given below.



Description of Parameter	ODD Semester	EVEN Semester
Number of Answer Scripts involved in PPS Applications submitted by students	12	8
Number of Answer Scripts where awarded marks changed after scrutiny	nil	nil

Review Application and Re-evaluation

Notices inviting application for post-publication review (PPR) from students were issued within 7 days of publication of result. Students not satisfied with the evaluation, could apply for re-evaluation by filling up a prescribed format and submitting the same within a time window specified in the notice. Since all main evaluation was done by an external faculty, the re-evaluation was assigned to an internal faculty. The details regarding students who submitted PPR applications in the academic year 2015-16 are given below.

Description of Parameter	ODD Semester	EVEN Semester
Number of Answer Scripts involved in Review Applications submitted by students	5	3
Number of Answer Scripts where awarded marks changed after Re-evaluation	2	nil

Automation of Examination System

The following examination activities were fully automated.

1. Examination Form fill up by students using online portal
2. List of students appearing in examination is prepared automatically
3. Result Publication



Chapter 6

Faculty Development

Professional Development Program

In academic year 2015 – 2016, Narula Institute of Technology has organised multiple numbers of different types of programmes like Workshops, Faculty Development Programmes (FDP), Short Term Training Programme (STTP), Hands on Session and Industrial Visit. This year total 39 number of Workshops have been organised by Institute and collectively more than 1795 participants have taken active participation. 8 FDPs have been organised by Institute where internal faculties from different department as well as faculty members from other colleges also taken active participation. Overall, 367 participants including many renowned delegates have made these FDPs successful. One STTP has also been arranged in the month of July with 41 numbers of participants. Narula Institute of Technology has also arranged Hands on session on Artificial Intelligence and its application with 32 participants and Industrial Visit at Bandel Thermal Power Station for students.

Type of program	Title	Organized by	Duration	No of participants
Workshop	One week Workshop "On Fundamentals of Electronics & Communication Systems, 2016 (WFECs, 2KH)"	Narula Institute of Technology	20-06-2016 - 25-06-2016	60
	Workshop on "Recent Trends in Wireless Technology"	Narula Institute of Technology	01-06-2016 - 04-06-2016	35
	Workshop on Social Entrepreneurship	Narula Institute of Technology	13-05-2016 - 14-05-2016	45
	Two Days workshop on Recent Trends On Renewable Energy And Power Electronics Using MATLAB	Narula Institute of Technology	02-05-2016 - 03-05-2016	42
	Workshop on "Safety Awareness in Industrial	Narula Institute of Technology	26-04-2016 - 29-04-2016	29



	Hazardous Area"			
	Object Oriented Programming in JAVA specialization	Narula Intitute of Technology	06-04-2016 -07-04-2016	37
	Two days' workshop on "Nanomaterials to Opportunities Abroad"	Narula Intitute of Technology	05-04-2016 - 06-04-2016	30
	Workshop on Artificial Intelligence and its appliactions	Narula Intitute of Technology	27-04-2016 - 28-02-2016	40
	Workshop "Control system & Measurements."	Narula Intitute of Technology	01-04-2016 - 04-04-2016	120
	Two Days Workshop on "Fundamentals of Machines & Mechanisms"	Narula Intitute of Technology	21-03-2016 - 22-03-2016	30
	Workshop on Cryptography and its application	Narula Intitute of Technology	03-02-2016 - 04-02-2016	36
	Workshop on POWER SYSTEM ANALYSIS-USING ETAP	Narula Intitute of Technology	29-02-2016 - 02-02-2016	41
	Two Days Workshop on "Renewable Energy Resources"	Narula Intitute of Technology	22-02-2016 - 23-02-2016	32
	Two Days Workshop on "Career Opportunities of Mechanical Engineering"	Narula Intitute of Technology	20-01-2016 - 21-01-2016	34
	Two days workshop on "Rural Drinking Water Treatment and Water Quality Monitoring-II"	Narula Intitute of Technology	18-01-2016 - 19-01-2016	30
	Workshop on SQL	Narula Intitute of Technology	18-01-2016	30
	3 DAYS WORKSHOP IIN APPLICATION OF MATLAB FOR PROCESS AUTOMATION",	Narula Intitute of Technology	04-01-2016 - 06-01-2016	25
	Workshop on Power System Protection Technology	Narula Intitute of Technology	16-12-2015 - 17-12-2015	42



Two days workshop on "Rural Drinking Water Treatment and Water Quality Monitoring-I"	Narula Intitute of Technology	07-12-2015 - 08-12-2015	30
Workshop on Excel	Narula Intitute of Technology	21-12-2015	40
Workshop on Ethical Hacking and Cyber Security	Narula Intitute of Technology	10-11-2015 - 11-11-2015	45
Workshop on Advanced Programming Language in Python	Narula Intitute of Technology	05-11-2015 - 06-11-2015	37
Workshop on Environmental sustainability, water resource and management	Narula Intitute of Technology	03-11-2015 - 07-11-2015	18
Workshop on "Fundamentals of Biomedical Instrumentation & Signal Processing using MATLAB"	Narula Intitute of Technology	03-11-2015 - 07-11-2015	20
Two-Day workshop titled "CNC Machining"	Narula Intitute of Technology	20-10-2015 - 21-10-2015	30
Two Days workshop titled "Advanced Welding Technique"	Narula Intitute of Technology	20-10-2015 - 21-10-2015	38
Workshop on IT Security Awareness	Narula Intitute of Technology	26-09-2015 - 27-09-2015	45
workshop on "Industrial Automation & Robotics	Narula Intitute of Technology	21-09-2015 - 26-09-2015	20
WORKSHOP ON "POWER CONSERVATION FOR SMART GRIDS"	Narula Intitute of Technology	21-09-2015-25-09-2015	24
Two days workshop on "Rural road construction materials including design"	Narula Intitute of Technology	17-09-2015 - 18-09-2015	30
One day Workshop on "PHP with MySQL"	Narula Intitute of Technology	02-09-2015	31
Two days workshop on "Rural Pavements design"	Narula Intitute of Technology	24-08-2015 - 25-08-2015	30



	The Workshop on Advancement in Biochemical and Biomedical Engineering	Narula Institute of Technology	20-07-2015 - 25-07-2015	50
	Two Week Workshop on Linux Overview and Linux System Administration (LOLSA)	Narula Institute of Technology	01-07-2015 - 13-07-2015	39
	Workshop on "Application of Biomedical instrumentation in health care"	Narula Institute of Technology	08-07-2015-09-07-2015	20
	One day seminar on Environmental Ethics and Value Crisis in Contemporary Society	Narula Institute of Technology	16-05-2016	30
	"2nd Technical Paper, Poster & Model Design Contest"	Narula Institute of Technology	10-10-2015	80
	Project Fair on Chemical Phenomena and Waste Recycling	Narula Institute of Technology	25-05-2016	35
	Two Day Training program for Non teaching staff on "PCB Design and Fabrication"	Narula Institute of Technology	01-02-2016 - 03-02-2016	15
FDP	One week FDP on "On-Site Sanitation & Rural Sewage water treatment and solid management"	Narula Institute of Technology	11-04-2016 - 15-04-2016	44
	Faculty Development program on Cloud Computing & Big Data Analytics	Narula Institute of Technology	18-01-2016 - 22-01-2016	37
	One-week Faculty Development Programme titled "Innovation in Mechanical Engineering	Narula Institute of Technology	16-11-2015 - 21-11-2015	24
	One week Faculty Development Programme on "Micro Manufacturing Technology"	Narula Institute of Technology	17-08-2015 - 22-08-2015	29



	FDP on Electric field optimization of high voltage electrode based on neural network	Narula Intitute of Technology	20-08-2015 - 22-08-2015	33
	Advancement in Bio-chemical and Bio-medical Engineering	Narula Intitute of Technology	20-07-2015 - 25-07-2015	32
	Faculty Development Program on Recent Trends of Soft Computing Techniques	Narula Intitute of Technology	15-07-2015 - 19-07-2015	40
	FDP on recent trends on Solar Technology & E-CAD	Narula Intitute of Technology	03-11-2015 - 07-11-2015	18
Industrial Visit	Visit at Bandel Thermal Power Station (BTPS) by Faculty on	Narula Intitute of Technology	19-01-2016 - 20-01-2016	20
STTP	STTP on Circuit simulation & PCB design	Narula Intitute of Technology	08-07-2015 - 09-07-2015	41
Hands on Session	Hands on Session on Artificial Intelligence and its Application	Narula Intitute of Technology	07-12-2015 - 08-12-2015	32



Faculty Achievements

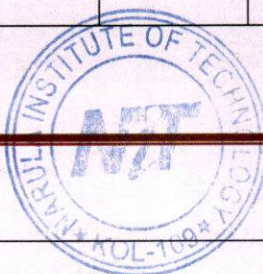
Awards received by faculty members in 2015 & 2016:

- Dr. Jayanta Kumar Saha, under the guidance of Dr. Tapan Kumar Mukherjee (BSHU, Physics), has been awarded the prestigious Sheldon Datz Prize 2015, a coveted international award of US \$1000. He has been conferred this award in ICPEAC Conference, Toledo, Spain.
- Dr. Saha, under the guidance of Dr. Tapan Kumar Mukherjee (BSHU, Physics) also achieved the highly recognized national award- "Best Thesis Award, 2015" across India conferred by ISAMP (Indian Association of Atomic and Molecular Physics).
- Dr. Sumit Nandi (BSHU, Chemistry) received the best paper award in the International Conference on Recent Innovations in Engineering and Technology (ICRIET-2015) at Mahabharati Engineering College, Chinnasalem, Tamilnadu in 2015.
- Dr. Rupa Bhattacharyya (BSHU, Chemistry) received the best paper award in the International Conference on Advances in Engineering and Technology (ICAET-2015) at Anjuman College of Engineering, Nagpur in 2015.
- Dibyendu Sur , received the Young Scientist award at the 2nd URSI-Regional Conference on Radio Science (URSI-RCRS-2015), organized by Indian Committee for International Radio Science Union (INC-URSI) under Indian National Science Academy in 2015.
- Dibyendu Sur , received the Second Prize in Electrical and Electronics Section in the 7th All India Inter College Academic meet 2016, organized by Forum of Scientists, Engineers & Technologists (FOSET) on 13 March, 2016.
- Narula Institute of Technology made a history in the JIS group Sports arena by lifting up the champions trophy for the consecutive three years. Mr. Kalyan Sinha Roy once again emerged as the matchless player of the tournament by winning the MOM trophy in the finals and was declared as the highest wicket taker, highest run scorer and eventually the Man of the tournament

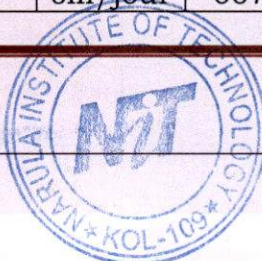


Research & Development

Title of paper	Name of the author/s	Name of journal	ISSN number	Link to the recognition in UGC enlistment of the Journal		Is it listed in UGC Care list/Scopus/Web of Science/other, mention
				Link to website of the Journal	Link to article/paper/abstract of the article	
Simulink Based Three-Phase Closed Loop Power Flow Control using TCSC	Arkendu Mitra	International Journal of Scientific Research and Management (IJSRM)	ISSN - 2321-3418	https://www.ijssrm.in/index.php/ijssrm	https://ijssrm.in/index.php/ijssrm/article/view/735/653	UGC CARE
Application of Solar Energy Conversion in A Street Lighting System	Pratyusha Biswas Deb	International Journal of Scientific & Engineering Research	ISSN 2229-5518	http://www.ijser.org	https://www.ijser.org/researchpaper/Application-of-Solar-Energy-Conversion-in-A-Street-Lighting-System.pdf	UGC CARE
Application of Solar Energy Conversion in A Street Lighting System	Kamalika Banerjee	International Journal of Scientific & Engineering Research	ISSN 2229-5518	http://www.ijser.org	https://www.ijser.org/researchpaper/Application-of-Solar-Energy-Conversion-in-A-Street-Lighting-System.pdf	UGC CARE



Applicati on of Solar Energy Conversi on in A Street Lighting System	Dipu Mistry	Internati onal Journal of Scientifi c & Engineer ing Researc h,	ISSN 2229- 5518	http:// www.ijse r.org	https://www.ijser. org/researchpaper /Application-of- Solar-Energy- Conversion-in-A- Street-Lighting- System.pdf	UGC CARE
Applicati on of Solar Energy Conversi on in A Street Lighting System	Priyanjali Mukherjee	Internati onal Journal of Scientifi c & Engineer ing Researc h,	ISSN 2229- 5518	http:// www.ijse r.org	https://www.ijser. org/researchpaper /Application-of- Solar-Energy- Conversion-in-A- Street-Lighting- System.pdf	UGC CARE
Applicati on of Solar Energy Conversi on in A Street Lighting System	Sudhangsh u Sarkar	Internati onal Journal of Scientifi c & Engineer ing Researc h,	ISSN 2229- 5518	http:// www.ijse r.org	https://www.ijser. org/researchpaper /Application-of- Solar-Energy- Conversion-in-A- Street-Lighting- System.pdf	UGC CARE
Precise estimati on of slowly moving hydroge n-like ions in quantu m plasmas	Dr. Tapan Kumar Mukherjee	Physics of Plasmas	ISSN- 2319- 7064	https:// www.ijse r.net	https://aip.scitatio n.org/doi/10.1063 /1.4921739	UGC CARE
Evolutio nary techniqu e based	Debjani Chakraborti	Opsearc h	ISSN 0030 -3887 DOI	https:// www.sp ringer.c om/jour	https://ideas.repec .org/a/spr/opsear /v53y2016i2d10.1 007_s12597-015-	SPRINGER



goal program ming approac h to chance constrai ned interval valued bilevel program ming problem s			10.1007 /s12597 -015- 0238-1	nal/125 97	0238-1.html	
Role of neutral wind in the performa nce of artificial- neural network- based TEC models at diverse longitud es in the low latitudes	Dibyendu Sur	Journal of Geophys ical Researc h. Space Physics	Online SSN 2169- 9402	https:// link.spri nger.co m/articl e/10.10 07/s40 031- 016- 0217-9	https://agupubs.o nlinelibrary.wiley.c om/doi/full/10.10 02/2014JA020594	SPRINGER
Effect of audio cue on electrooc ulogram -based eye moveme nt analysis of visual memory recall	Dr.Anilesh Dey	<i>Lecture Notes in Electrical Engineer ing (2015) 335 197- 215</i>	DOI: 10. 1007/9 78-81- 322- 2274- 3_50	https:// link.spri nger.co m	https://link.spring er.com/chapter/10 .1007/978-81-322- 2274-3_52	SPRINGER



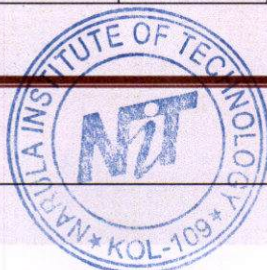
An Improved Energy Detector for Spectrum Sensing in Cognitive Radio System with Adaptive Noise Cancellation and Adaptive Threshold	Dr. Sandhya Pattanayak	Book chapter of Springer book: Computational Advancement in Communication Circuits and Systems in Lect. Notes Electrical Eng., Vol. 335. Scopus indexed	ONLINE ISSN 978-81-322-2273-6	https://www.springerprofessional.de/en/an-improved-energy-detector-for-spectrum-sensing-in-cognitive-ra/4658104	Springer
Implementation of High performance Vedic Multiplier and design of DSP operations using Vedic Sutra	Dr. Saradindu Panda	Lecture Notes in Electrical Engineering, Vol. 335, page no: 443-449,	ISSN: 1876-1100, ISSN: 11876-1119 (electronic), ISBN: 978-81-322-2273-6, ISBN: 978-81-322-2274-3 (eBook)	https://www.researchgate.net/publication/286813227_Implementation_of_optimized_high_performance_44_multipliers_using_ancient_Vedic_sutra_in_45_nm_technology	SPRINGER



Analysis of Ambipolar Intrinsic Resistance of PIN Diode for different semiconductors suitable for Power Devices	Dr.Saradindu Panda	Lecture Notes in Electrical Engineering, Vol. 335, page no: 357-365, ISSN: 1876-1100,	ISSN: 11876-1119 (electronic), ISBN: 978-81-322-2273-6, ISBN: 978-81-322-2274-3 (eBook)	https://link.springer.com/chapter/10.1007/978-81-322-2274-3_49	https://www.researchgate.net/publication/279206628_Analysis_of_Ambipolar_Intrinsic_Resistance_of_PIN_Diode_for_Different_Semiconductors_Suitable_for_Power_Devices	SPRINGER
Electrical Characteristics Of Mesfet Using Gaas, Inp And Gan As Substrates	Mr.Puspak Pain	Computational Advancement in Communication Circuits and Systems Springer, New Delhi	ONLINE ISSN 978-81-322-2274-3	https://www.springer.com	https://www.springerprofessional.de/en/electrical-characteristics-of-mesfet-using-gaas-inp-and-gan-as-s/4658310	Springer
Discrete Design Approach along with Performance Analysis by Controllability Observability Testing for a Standard Prosthetic	Mrs Swati Barui	Lecture Notes in Electrical Engineering, Springer	ONLINE ISSN 978-81-322-2274-3	https://link.springer.com/chapter	https://publons.com/publon/21490765/	SPRINGER



c Arm Model						
Discrete Design Approach along with Performance Analysis by Controllability Observability Testing for a Standard Prosthetic Arm Model	Moupali Roy	Lecture Notes in Electrical Engineering, Springer	ONLINE ISSN 978-81-322-2274-3	https://link.springer.com/chapter	https://publons.com/publon/21490765/	SPRINGER
Frequency Response of Si/SiGe Heterojunction Bipolar Transistor	Mrs. Arnima Das	Lecture Notes in Electrical Engineering	ONLINE ISSN 978-81-322-2274-3	https://link.springer.com/chapter	https://www.springerprofessional.de/en/frequency-response-of-si-sige-heterojunction-bipolar-transistor/4658256	SPRINGER
Frequency Response of Si/SiGe Heterojunction Bipolar Transistor	Dr. M .R. Kanjilal	Lecture Notes in Electrical Engineering	ONLINE ISSN 978-81-322-2274-3	https://link.springer.com/chapter	https://www.springerprofessional.de/en/frequency-response-of-si-sige-heterojunction-bipolar-transistor/4658256	SPRINGER



Frequency Response of Si/SiGe Heterojunction Bipolar Transistor	Payel Biswas	Lecture Notes in Electrical Engineering	ONLINE ISSN 978-81-322-2274-3	https://link.springer.com/chapter	https://www.springerprofessional.de/en/frequency-response-of-si-sige-heterojunction-bipolar-transistor/4658256	SPRINGER
Overview on Various Bandwidth Enhancement Techniques for Ultra-wide Band Antennas	Mrs.Arпита Barman Santra	Computational Advancement in Communication Circuits and Systems	ONLINE ISSN 978-81-322-2274-3	https://www.springer.com/gp/book/9789811386862	https://www.researchgate.net/publication/282207821-Overview_of_Various_Bandwidth_Enhancement_Techniques_for_Ultra-Wide_Band_Antennas	Springer
A novel design approach of subband coder and decoder of speech signal using log normal probability distribution	Mrs.Sangita Roy	Lecture Notes in Electrical Engineering book series (LNEE, volume 335)	ONLINE ISSN 978-81-322-2273-6	https://link.springer.com/chapter	https://www.researchgate.net/publication/283031990-A_Novel_Design_Approach_of_Subband_Coder_and_Decoder_of_Speech_Signal_Using_Log_Normal_Probability_Distribution	SPRINGER
Benchmark function	Mrs.Sangita Roy	Advances in Intelligence	ONLINE ISSN 978-81-	https://www.springer.com	https://link.springer.com/chapter/10.1007/978-81-322-	SPRINGER

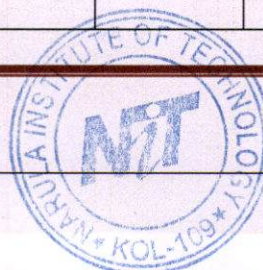


analysis of cuckoo search algorithm		nt Systems and Computing book series (AISC, volume 339)	322-2249-1	om/series/11156	2250-7_72	
Benchmark function analysis of cuckoo search algorithm	Jayaita Basak	Advances in Intelligent Systems and Computing book series (AISC, volume 339)	ONLINE ISSN978-81-322-2249-1	https://www.springer.com/series/11156	https://link.springer.com/chapter/10.1007/978-81-322-2250-7_72	SPRINGER
Haar Wavelet Transform Image Compression Using Various Run Length Encoding Schemes	Mrs. Sangita Roy	Advances in Intelligent Systems and Computing book series (AISC, volume 327), Proceedings of the 3rd International Conference on Frontiers of Intelligent Computing:	ONLINE ISSN978-3-319-11933-5	https://www.springer.com/gp/book/9783319119328	https://www.researchgate.net/publication/278669829_Haar_Wavelet_Transform_Image_Compression_Using_Various_Run_Length_Encoding_Schemes	SPRINGER



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Electronically Tunable Differential Integrator: Linear Voltage Controlled Quadrature Oscillator	Sandhya Pattanayak	International Journal of International Scholarly Research Notices	DOI: 10.1155/2015/690923	https://www.ijert.org/	https://www.researchgate.net/publication/276092502_Electronically_Tunable_Differential_Integrator_Linear_Voltage_Controlled_Quadrature_Oscillator	UGC CARE
Real-Time Damage Detection in Laminated Composite Beams Using Dynamic Strain Response and Modular Neural Arrays for Aerospace Applications	Sanjay Goswami	International Research Journal of Engineering and Technology (IRJET)	e-ISSN: 2395-0056, p-ISSN: 2395-0072,	https://www.irjet.net/	https://www.irjet.net/archives/V2/i3/Irjet-v2i3333.pdf	springer

Process optimization of lipase catalyzed synthesis of diesters in a packed bed reactor	Dr. Sumit Nandi	Biochemical Engineering Journal (Elsevier)	ISSN: 1369-703X	https://www.journals.elsevier.com/biochemical-engineering-journal	https://www.sciencedirect.com/science/article/abs/pii/S1369703X15001205	Elsevier
Process optimization of lipase catalyzed synthesis of diesters in a packed bed reactor	Dr. Sarbani Ganguly	Biochemical Engineering Journal (Elsevier)	ISSN: 1369-703X	https://www.journals.elsevier.com/biochemical-engineering-journal	https://www.sciencedirect.com/science/article/abs/pii/S1369703X15001205	Elsevier
Nonrelativistic structure calculations of two-electron ions in a strongly coupled plasma environment	Dr. Tapan Kumar Mukherjee	Phys. Rev. A	DOI: https://doi.org/10.1103/PhysRevA.91.042515	https://journals.aps.org/prap/	https://journals.aps.org/prap/abstract/10.1103/PhysRevA.91.042515	UGC recognized
Enzymatic synthesis of micronu	Dr. Sumit Nandi	International Journal of Science	ISSN 2319-7064	https://www.ijsr.net/	https://www.ijsr.net/get_abstract.php?paper_id=SUB157513	UGC recognized



trients rich diacylglycerol from rice bran oil fatty acid distillate		and Research				
Enzymatic extraction of rice bran oil from microwave stabilized and sieved bran	Dr. Sumit Nandi	Indian Journal of Science	E-ISSN 2319-7749	http://www.discoveryjournals.org/science/index.htm	http://www.discoveryjournals.org/science/current_issue/2015/A65.pdf	ESCI - Thomson Reuters, scopus
Enzymatic synthesis of micronutrients rich diacylglycerol from rice bran oil fatty acid distillate	Dr. Rupa Bhattacharya	International Journal of Science and Research	ISSN 2319-7064	https://www.ijsr.net/	https://www.ijsr.net/get_abstract.php?paper_id=SUB157513	UGC recognized
Search of appropriate semiconductor for PIN Diode fabrication in	Dr. Saradindu Panda	IEEE Explore,	DOI: https://doi.org/10.1103/PhysRevA.91.042515	https://ieeexplore.ieee.org/document/7281370	https://ieeexplore.ieee.org/document/7281370	SCOPUS

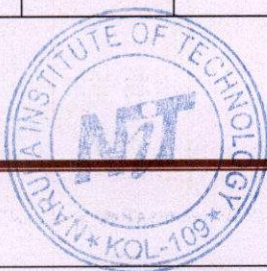


terms of resistance analysis						
Effect of gate engineering in JLSRG MOSFET to suppress SCEs: An analytical study	Dr.Surajit Bari	Physica E: Low-Dimensional Systems and Nanostructures, Elsevier, Science Direct	ISSN: 1386-9477	https://ieeexplore.ieee.org/	https://www.researchgate.net/publication/270049828_Effect_of_gate_engineering_in_JLSRG_MOSFET_to_suppress_SCEs_An_analytical_study	Elsevier
Studies on the influence of two large earthquakes ($M > 6$) upon 9 khz sferics recorded from Kolkata	Mr.Pranab Hazra	Romanian Journal of Physics	ISSN12 21-146X (print)	https://rjp.nipne.ro/index.php	https://www.researchgate.net/publication/282660514_Studies_on_the_influence_of_two_large_earthquakes_M_6_upon_9_khz_sferics_recorded_from_Kolkata	Thomson ISI
Redshift parametrizations of dark energy and observational constraint on their parameters: Galileon gravity as	SUJATA KUNDU	Modern Physics Letters A	ISSN (online): 1793-6632	https://www.worldscientific.com/worldscinet/mpla	https://www.worldscientific.com/doi/abs/10.1142/S0217732315501515	UGC recognized



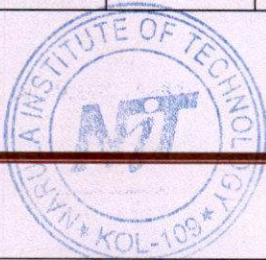
backgro und.						
Detectin g Software Bugs Towards Efficient Software develop ment: A Model Based Approac h	Soumya Bhattachary ya	Internati onal Journal of Latest Trends in Engineer ing & Technolo gy	ISSN : 2278 : 621X	https:// www.ijlt et.org/	https://www.ijltet. org/wp- content/uploads/2 015/11/2.pdf	ICI
Detectin g Software Bugs Towards Efficient Software develop ment: A Model Based Approac h	Anirban Bhar	Internati onal Journal of Latest Trends in Engineer ing & Technolo gy	ISSN : 2278 : 621X	https:// www.ijlt et.org/	https://www.ijltet. org/wp- content/uploads/2 015/11/2.pdf	ICI
Develop ment of Automat ed Agricult ural Process Monitori ng and Control Technolo gy in an Enclosed System	B.D.Majum der	IOSR Journal of Agricult ure and Veterina ry Science (IOSR- JAVS)	e-ISSN: 2319- 2380, p- ISSN: 2319- 2372	https:// www.ios rjournal s.org/io sr- jee.ht ml	https://www.resea rchgate.net/public ation/336848252_ Development_of_Au tomated_Agricultur al_Process_Monitor ing_and_Control_T echnology_in_an_E nclosed_System	UGC recognized

Development of Automated Agricultural Process Monitoring and Control Technology in an Enclosed System	Arijita Das	IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)	e-ISSN: 2319-2380, p-ISSN: 2319-2372	https://www.iosrjournal.org/iosr-jee.html	https://www.researchgate.net/publication/336848252_Development_of_Automated_Agricultural_Process_Monitoring_and_Control_Technology_in_an_Enclosed_System	UGC recognized
Development of Automated Agricultural Process Monitoring and Control Technology in an Enclosed System	Susmita Das	IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)	e-ISSN: 2319-2380, p-ISSN: 2319-2372	https://www.iosrjournal.org/iosr-jee.html	https://www.researchgate.net/publication/336848252_Development_of_Automated_Agricultural_Process_Monitoring_and_Control_Technology_in_an_Enclosed_System	UGC recognized
Development of Automated Agricultural Process Monitoring and Control Technology in an Enclosed System	Dibyendu Sur	IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)	e-ISSN: 2319-2380, p-ISSN: 2319-2372	https://www.iosrjournal.org/iosr-jee.html	https://www.researchgate.net/publication/336848252_Development_of_Automated_Agricultural_Process_Monitoring_and_Control_Technology_in_an_Enclosed_System	UGC recognized



Threshold voltage roll-off for triple gate FinFET analysis based on several semiconductors used as substrate	Dr.Saradindu Panda	IEEE Explore,	DOI:10.1109/ICHPCA.2014.7045355	https://ieeexplore.ieee.org/abstract/document/7045355	https://ieeexplore.ieee.org/document/7045355?reload=true&tp=&arnumber=7045355&openedRefinements%3D*%26filter%3DAND(NOT(4283010803))%26pageNumber%3D6%26rowsPerPage%3D50%26queryText%3DFinFET=	SCOPUS
Does music affect HRV impulse? A time domain study	Dr.Anilesh Dey	Lecture Notes in Electrical Engineering (2015) 335 197-215	DOI: 10.1007/978-81-322-2274-3_50	https://ieeexplore.ieee.org/document/7045355	https://www.semanticscholar.org/paper/Does-Music-Affect-HRV-Impulse-A-Time-Domain-Study-Dey-Banerjee/c984e61a7b6a6efc6df094d06aff88e85201bdb3	SCI
Design and simulation of two-stage low-power CMOS Op-amp in nanometre range	Mr.Soumen Pal	Part of the Lecture Notes in Electrical Engineering book series (LNEE, volume 335), Springer	ONLINE ISSN 978-81-322-2274-3	https://link.springer.com/bookseries/7818	https://link.springer.com/chapter/10.1007/978-81-322-2274-3_47	SCOPUS
Comparative study of IV- Characteristics of pin diode at	Saradindu Panda	International Journal of Electronics and Communication	2278-9901 (P) 2278-991X (E)	https://www.journals.ejsevier.com/aeu-international	https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2666925	ELSEVIER

different doping concentrations for different semiconductor materials using TCAD		Engineering		journal-of-electronics-and-communications		
Comparison of Noise, Power and Delay of Different Multiplier's using Variable Threshold MOSFET in 45nm Technology	Saradindu Panda	International Journal of Application or Innovation in Engineering & Management	2319 – 4847	https://www.ijaie.com.org/Volume4Issue9/IJAIE-2015-09-02-1.pdf		Thomson Reuters Researchid
Controller Design and Optimized System Analysis for Standard Dexterous Arm Model	Swati Barui	International Journal of Electronics and Communication Engineering and Technology	0976 – 6464 (P) 0976 – 6472 (E)	https://silosilohub.com/IJECET/index.asp	https://silosilohub.com/IJECET/index.asp	Thomson Reuters Researchid



Controller Design and Optimized System Analysis for Standard Dexterous Arm Model	Subhasish Ghosh	International Journal of Electronics and Communication Engineering and Technology	0976 – 6464 (P) 0976 – 6472 (E)	https://iaeme.com/IJECET/index.asp	https://silo.tips/download/controller-design-and-optimized-system-analysis-for-standard-dexterous-arm-model	Thomson Reuters Researchid
Overview on Literature Survey towards EMG Interpretations Technique in Addition to Several Interdisciplinary Work Related to EMG Interpretations	Swati Barui	International Journal of Scientific & Engineering Research	2229-5518	https://www.ijser.org/	https://www.citefactor.org/journal/pdf/Overview-on-Literature-Survey-towards-EMG-Interpretations-Technique-in-Addition.pdf	UGC recognized
Current Signal Output Electronically Variable Quadrature Sinusoid Oscillator with	Sandhya Pattanayak	International Journal of Active and Passive Electronic Devices	1555-0281	http://www.olcitypublishing.com/journals/japed-home/	https://web.a.ebscohost.com/abstract?direct=true&profile=ehost&scope=sitel&authtype=crawler&jrnl=15550281&AN=108974203&h=0GBh%2fKaqdW3Q2Wvp2QN4IPjJKpjQPKlhe%2fzZjFniZuJzXbde6jFPbalEP	UGC recognized



Linear Tuning Law					nGebG0JLcRFa69c1ak2RHa8gmBvdQ%3d%3d&crl=c&resultNs=AdminWebAuth&resultLocal=ErrCrlNotAuth&crlhashurl=login.aspx%3fdirect%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d15550281%26AN%3d108974203	
Risk Modelling and Solution of Cardiovascular Risk Score Problems, The Framingham Heart study Perspective	RimpiDatta	International Journal of Engineering Research & Technology	2278-0181	https://www.ijert.org/	https://www.academia.edu/43918407/IJERT_Risk_Modelling_and_Solution_of_Cardiovascular_Risk_Score_Problems	SCOPUS
Risk Modelling and Solution of Cardiovascular Risk Score Problems, The Framingham Heart study	D. P Goswami	International Journal of Engineering Research & Technology	2278-0181	https://www.ijert.org/	https://www.academia.edu/43918407/IJERT_Risk_Modelling_and_Solution_of_Cardiovascular_Risk_Score_Problems	SCOPUS



Perspect ive						
A Compar ative Survey On Papr Reductio n Techniq ues For Ofdm Performa nce Improve ment	Rimpi Datta	Internati onal Journal of Electroni cs and Communi cation Engineer ing & Technolo gy	0976- 6464 (P) 0976- 6472 (E)	http://iaeme.com/IJECET/index.asp	https://iaeme.com/MasterAdmin/Journal_uploads/IJECET/VOLUME_6_ISSUE_10/IJECET_06_10_006.pdf	SCOPUS
A Compar ative Survey On Papr Reductio n Techniq ues For Ofdm Performa nce Improve ment	Anirban Bhar	Internati onal Journal of Electroni cs and Communi cation Engineer ing & Technolo gy	0976- 6464 (P) 0976- 6472 (E)	http://iaeme.com/IJECET/index.asp	https://iaeme.com/MasterAdmin/Journal_uploads/IJECET/VOLUME_6_ISSUE_10/IJECET_06_10_006.pdf	SCOPUS
A Compar ative Survey On Papr Reductio n Techniq ues For Ofdm Performa nce Improve ment	Arpita Barman Santra	Internati onal Journal of Electroni cs and Communi cation Engineer ing & Technolo gy	0976- 6464 (P) 0976- 6472 (E)	http://iaeme.com/IJECET/index.asp	https://iaeme.com/MasterAdmin/Journal_uploads/IJECET/VOLUME_6_ISSUE_10/IJECET_06_10_006.pdf	SCOPUS



A Comparative Survey On Paper Reduction Techniques For OFDM Performance Improvement	Sohan Ghorai	International Journal of Electronics and Communication Engineering & Technology	0976-6464 (P) 0976-6472 (E)	http://iaeme.com/IJECET/index.asp	https://iaeme.com/MasterAdmin/Journal_uploads/IJECET/VOLUME_6_ISSUE_10/IJECET_06_10_006.pdf	SCOPUS
An Analytical Study Of The Influence On Domestic Consumers In Karnataka By Time-Of-Day Tariff	Rimpi Datta,	International Journal of Science	2277-663X (P) 2278-3687 (E)	https://www.ijset.net/	https://www.ijset.net/journal/812.pdf	ICI
An Analytical Study Of The Influence On Domestic Consumers In Karnataka By Time-Of-Day Tariff	Sudhangshu Sarkar	International Journal of Science	2277-663X (P) 2278-3687 (E)	https://www.ijset.net/	https://www.ijset.net/journal/812.pdf	ICI



An Analytical Study Of The Influence On Domestic Consumers In Karnataka By Time-Of-Day Tariff	Subhasis Mondal	International Journal of Science	2277-663X (P) 2278-3687 (E)	https://www.ijset.net/	https://www.ijset.net/journal/812.pdf	ICI
Analysis of Single Phase PWM Rectifier for Different Applications	Arkendu Mitra	The Institution of Engineers (India): Series B	2250-2106 DOI: 10.1007/s40031-016-0217-9	https://www.springer.com/journal/40031	https://www.researchgate.net/publication/304619915_Analysis_of_Single_Phase_PWM_Rectifier_for_Different_Applications	SCOPUS
Development of an Automatic Switch-off Household Loads by Visitor Counter	Dibyendu Sur	International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)	ISSN (Online) : 2319 - 8753, ISSN (Print) : 2347 - 6710	http://www.ijirset.com/	http://www.ijirset.com/upload/2015/ncetas15/15_P_ID_20.pdf	ICI
An Alternative Approach for Domestic	Dibyendu Sur	Advanced Research in Electrical and	Print ISSN: 2349-5804, Online ISSN:	www.ijirset.com	https://www.researchgate.net/publication/320226084_An_Alternate_Approach_for_Domestic_Power_Saver	UGC recognized



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Moderate Density Salt & Pepper Noise Removal	Shubhendu Banerjee	International Journal of Electronics & Communication Technology	2230-7109 (Online) ISSN : 2230-9543 (Print)	http://www.iject.org/	https://www.researchgate.net/publication/270903837_Moderate_Density_Salt_Pepper_Noise_Removal	ICI
High Payload Watermarking using Residue Number System	Shubhendu Banerjee	International Journal of Image, Graphics and Signal Processing (IJIGSP)	2074-9074 (Print), 2074-9082 (Online)	http://www.mecspress.org/ijigsp/	https://www.semanticscholar.org/paper/High-Payload-Watermarking-using-Residue-Number-Banerjee-Chakraborty/a7eda1aaa1628f1de1d8c3e7fb5b2ee1cb96876	UGC recognized
A Relook and Renovation over State-of-Art Salt and Pepper Noise Removal Techniques	Shubhendu Banerjee	International Journal of Image, Graphics and Signal Processing (IJIGSP)	2074-9074 (Print), 2074-9082 (Online)	http://www.mecspress.org/ijigsp/	https://www.researchgate.net/publication/280628480_A_Relook_and_Renovation_over_State-of-Art_Salt_and_Pepper_Noise_Removal_Techniques	ISI
Risk Analysis in Banking Industry	Koushik Karmakar	International Journal of Innovation in Engineering	2319-1058	https://ijiet.com/	https://doczz.net/doc/6777112/risk-analysis-in-banking-industry	ISI, Google Scholar, IndexCopernicus, DOAJ, INSPEC, EBSCO, WordCat,



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A Heuristi c Approac h to Factoid Question Generati on from Sentenc e	Tamal Deb	IJRASET	2321- 9653	https:// www.ijr aset.co m/	https://www.acade mia.edu/21901579 /A_Heuristic_Appr oach_to_Factoid_Q uestion_Generation _from_Sentence	ISI
Geometr ical method of exhibitin g similarit y/dissim ilarity under new 3D classific ation curves and establish ing	Subhram Das	Internati onal Journal of Advance d Researc h in Comput er Science and Software Engineer ing	2277- 128X	https:// journals .indexco pernicu s.com/s earch/d etails?id =40178	http://ijarcsse.com /Before_August_20 17/docs/papers/V olume_5/5_May20 15/V5I5-0302.pdf	ICI

significance difference of different parameters of estimation						
Geometrical method of exhibiting similarity under new 3D classification curves and establishing significance difference of different parameters of estimation	Jayanta Pal	International Journal of Advanced Research in Computer Science and Software Engineering	2277-128X	https://journals.indexcopernicus.com/search/details?id=40178	http://ijarcsse.com/Before_August_2017/docs/papers/Volume_5/5_May2015/V5I5-0302.pdf	ICI
Differentiation of Protein Sequence Comparison Based on Biological and	Soumen Ghosh	International Journal of Advanced Research in Computer Science	2277-128X	https://journals.indexcopernicus.com/search/details?id=40178	https://scholar.google.com/scholar?cluster=17195432917144714686&hl=en&oi=scholar	ICI



Theoretical Classification of Amino Acids in Six Groups		and Software Engineering				
Differentiation of Protein Sequence Comparison Based on Biological and Theoretical Classification of Amino Acids in Six Groups	Subhram Das	International Journal of Advanced Research in Computer Science and Software Engineering	2277 128X	https://journals.indexcopernicus.com/search/details?id=40178	https://scholar.google.com/scholar?cluster=17195432917144714686&hl=en&oi=scholar	ICI
Differentiation of Protein Sequence Comparison Based on Biological and Theoretical Classification of Amino Acids in Six Groups	Jayanta Pal	International Journal of Advanced Research in Computer Science and Software Engineering	2277 128X	https://journals.indexcopernicus.com/search/details?id=40178	https://scholar.google.com/scholar?cluster=17195432917144714686&hl=en&oi=scholar	ICI



Wear Characteristics of Electroless Ni-P Coatings in Alkaline Medium And Optimization of Coating Parameters	B. Panja	Journal of Manufacturing Technology Research	1943-8095	https://novapublishers.com/shop/journal-of-manufacturing-technology-research/	https://www.researchgate.net/publication/311269750-Wear_characteristics_of_electroless_Ni-P_coatings_in_alkaline_medium_and_optimization_of_coating_parameters	Scopus, Chem Abstr, Metal Abstr, Curr Cont, Engg Ind, Ind Sci Abstr, Lead Abstr. Cambridge Sci Abstr, Math Rev,
Tribological Behaviour of Electroless Ni-P Coatings in Brine Solution and Optimization of Coating Parameters Using Taguchi Based Grey Relation Analysis	B. Panja	Journal of The Institution of Engineers (India): Series C	2250-0545	https://link.springer.com/article/10.1007/s40032-015-0174-0	DOI:10.1007/s40032-015-0174-0	Scopus
Study of Friction Performance of Electroless Ni-P Coatings in Brine Solution and	B. Panja	International Journal of Applied Engineering Research	0973-4562	https://www.ripublication.com/ijaer.htm	https://www.ripublication.com/Volume/ijaerv10n8spl.htm	UGC recognized



Optimization of Coating Parameters,						
Precise energy eigenvalues of hydrogen-like ion moving in quantum plasmas	T.K.Mukherjee	PHYSICS OF PLASMAS	1070-664X	https://aip.scitation.org/journal/php	https://aip.scitation.org/doi/10.1063/1.4921739	Index Copernicus, Google Scholar, Open Research
Modification of the properties of PVC by full IPN formation with polybutyl acrylate	Dr. Rupa Bhattacharya	International Journal of Advance Research in Science, Engineering and Technology	2350-0328	http://www.iaeme.com/ijaret/index.asp	http://www.ijarset.com/upload/2015/january/10_IJARSET_sumitnandi.pdf	SCOPUS
Modification of the properties of PVC by full IPN formation with polybutyl acrylate	Dr. Sumit Nandi	International Journal of Advance Research in Science, Engineering and Technology	2350-0328	http://www.iaeme.com/ijaret/index.asp	http://www.ijarset.com/upload/2015/january/10_IJARSET_sumitnandi.pdf	SCOPUS
Biodiesel from Jatropha Curcas	Dr. Sumit Nandi	Research Journal of	2277-2502	http://www.isca.in/rjrs/Intro	http://www.isca.in/rjrs/archive/v4/ilSC-2014/8.ISCA-ISC-2014-Oral-	Indexed in Google Scholar

Oil: A comparative study between chemical and biocatalytic transesterification		Recent Sciences		duction.php	4CS-06.php	
Biodiesel from Jatropha Curcas Oil: A comparative study between chemical and biocatalytic transesterification	Dr. Rupa Bhattacharya	Research Journal of Recent Sciences	2277-2502	http://www.isca.in/rjrs/Introduction.php	http://www.isca.in/rjrs/archive/v4/i/ISC-2014/8.ISCA-ISC-2014-Oral-4CS-06.php	Indexed in Google Scholar
A comparative evolutionary analysis and prediction of carbon dioxide emission in different countries	Dr. Sumit Nandi	Research Journal of Recent Sciences	2277-2502	http://www.isca.in/rjrs/Introduction.php	http://www.isca.in/rjrs/archive/v4/i/ISC-2014/16.ISCA-ISC-2014-Oral-8EVS-08.php	Indexed in Google Scholar, Chemical Abstracts Service,



A comparative evolutionary analysis and prediction of carbon dioxide emission in different countries	Dr. Pijush Basak	Research Journal of Recent Sciences	2277-2502	http://www.isca.in/rjrs/Introduction.php	http://www.isca.in/rjrs/archive/v4/iISC-2014/16.ISCA-ISC-2014-Oral-8EVS-08.php	Indexed in Google Scholar, Chemical Abstracts Service,
A parametric study for the enzymatic extraction of rice bran oil and its optimization.	Dr. Sumit Nandi	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	https://ijritcc.org/index.php/ijritcc	https://www.semanticscholar.org/paper/A-parametric-study-for-the-enzymatic-extraction-of-Nandi-Bhattacharyya/bb28dd0a62027198f3ef893e9317be22b16a5	Indexed in Google Scholar, Chemical Abstracts Service,
A parametric study for the enzymatic extraction of rice bran oil and its optimization.	Dr. Rupa Bhattacharyya	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	https://ijritcc.org/index.php/ijritcc	https://www.semanticscholar.org/paper/A-parametric-study-for-the-enzymatic-extraction-of-Nandi-Bhattacharyya/bb28dd0a62027198f3ef893e9317be22b16a5	Indexed in Google Scholar, Chemical Abstracts Service,

Influence of cross linked PMMA on cross linked PVC for modification of its properties	Dr. Rupa Bhattacharya	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	https://ijritcc.org/index.php/ijritcc	http://www.ijarset.com/upload/2015/january/10_IJARSET_sumitnandi.pdf	Google Scholar, Index Copernicus International
Influence of cross linked PMMA on cross linked PVC for modification of its properties	Dr. Sumit Nandi	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	https://ijritcc.org/index.php/ijritcc	http://www.ijarset.com/upload/2015/january/10_IJARSET_sumitnandi.pdf	Google Scholar, Index Copernicus International
A Statistical Analysis of Carbon Dioxide Emission From Different Attributes in West Bengal, India	Dr. Pijush Basak	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	https://www.ijert.org/abstract-statistical-analysis-of-carbon-dioxide-emission-from-different-attributes-in-west-bengal	https://ijritcc.org/index.php/ijritcc/Special_Issue/ICAET_2015_Track_6	Google Scholar, Index Copernicus International

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A Statistical Analysis of Carbon Dioxide Emission From Different Attributes in West Bengal, India	Dr. Sumit Nandi	International Journal on Recent and Innovation Trends in Computing and Communication	2321-8169	https://www.ijert.org/article-statistical-analysis-of-carbon-dioxide-emission-from-different-attributes-in-west-bengal-india	https://ijritcc.org/index.php/ijritcc/Special_Issue/ICAET_2015_Track_6	Google Scholar, Index Copernicus International
Production of biodiesel from Jatropha Curcas oil with recycling of enzyme	Dr. Sumit Nandi	International Journal on Applications in Civil and Environmental Engineering	2394-6237	http://aetsjournal.com/ijacee/paper_list.php?rand=1&view=20180818030859&name=Volume%201%20Issue%201	http://www.aetsjournal.com/ijacee_issues/Production-Of-Biodiesel-From-Jatropha-Curcas-Oil-With-Recycling-Of-Enzyme.pdf	Google Scholar, Index Copernicus International
Production of biodiesel from Jatropha Curcas	Dr. Rupa Bhattacharya	International Journal on Applications in	2394-6237	http://aetsjournal.com/ijacee/paper_list.php?r	http://www.aetsjournal.com/ijacee_issues/Production-Of-Biodiesel-From-Jatropha-Curcas-Oil-With-Recycling-Of-Enzyme.pdf	Google Scholar, Index Copernicus International

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Delay induced oscillation in a biochemical model and its control	Rupa Bhattacharya	Nonlinear Studies	1359-8678	http://www.nonlinearstudies.com/index.php/nonlinear	https://www.researchgate.net/publication/281549913_Delay_induced_oscillation_in_a_biochemical_model_and_its_control	SCOPUS
A Problem on Interval Valued Bilevel Programming In Inexact Environment	Debjani Chakraborti	Global Journal of Dynamic System and Applications	2249-4294	https://journals.igfbusiness.org/index.php/GJMBR	http://www.gbspublisher.com/volume.php?category_volume_id=62&category_id=73	UGC recognized
The Unspoken Of: In Dattani's Do The Needful and Seven Steps Round The Fire	Rajasi Ray	JOURNAL OF HIGHER EDUCATION AND RESEARCH SOCIETY	ISSN: 2349-0209	https://herso.org/vol-3-issue-2-oct-2015-index-1/	https://herso.org/vol-3-issue-2-oct-2015-index-1/	EBSCO Information Services
The Marginalized: A postcolonial	Rajasi Ray	Global English-Oriented Research	ISSN 2454-5511	http://research.english.com/?page_id=	http://researchenglish.com/wp-content/uploads/2015/06/issue1/14.pdf	UGC recognized

Reading of Mahesh Dattani's Plays		Journal (GEORJ)		428		
The Lost Dream	Sharmistha Basu	INTERNATIONAL JOURNAL OF ENGLISH: LITERATURE, LANGUAGE & SKILLS (IJELLS)	ISSN:22 78 0742	https://www.ijel.com/welcome/	https://www.academia.edu/13205529/Language_and_Literature_Development	UGC recognized
Nature and scope of Evaluation in Language classroom	Sharmistha Basu	Research Scholar-An International Refereed e-Journal of Literary Explorations (Online Journal)	(ISSN - 2320-6101)	https://africanwriterstrust.org/research-scholar-an-international-refereed-e-journal-of-literary-explorations/	http://www.researchscholar.co.in/downloads/100-ms.-sharmistha-basu.pdf	UGC recognized
Block based Data Encryption and Decryption using Algorithmic Operation	Dr Pranam Paul	CiiT International Journal of Networking and Communication Engineering	ISSN (Print): 0974 - 9713 & ISSN (Online): 0974 - 9616	http://www.ciiresearch.org/nce.html	http://www.ciiresearch.org/dl/index.php/nce/article/view/NCE022015004	UGC recognized

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Block based Data Encryption and Decryption using Algorithmic Operations	Anyan Banerjee	CiiT International Journal of Networking and Communication Engineering	ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.cii-tresearch.org/nce.html	http://www.cii-tresearch.org/dl/index.php/nce/article/view/NCE022015004	UGC recognized
Block based Cryptographic Protocol using Sequence of Rearrangement of Points	Rajat Das	CiiT International Journal of Networking and Communication Engineering	ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.cii-tresearch.org/nce.html	http://scholar.info/index.php/CiiTNC/article/view/103384/0	UGC recognized
Block based Cryptographic Protocol using Sequence of Rearrangement of Points	Dr Pranam Paul	CiiT International Journal of Networking and Communication Engineering	ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.cii-tresearch.org/nce.html	http://scholar.info/index.php/CiiTNC/article/view/103384/0	UGC recognized
Cryptographic Algorithm Based on Triangular Form	Subhankar Ghosh	CiiT International Journal of Networking and Communication	ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.cii-tresearch.org/nce.html	http://ciitresearch.org/dl/index.php/nce/article/view/NCE052015003	UGC recognized

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Cryptographic Algorithm Based on Triangular Form	Dr Pranam Paul	CiiT International Journal of Networking and Communication Engineering	ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.cii-tresearch.org/nce.html	http://cii-tresearch.org/dl/index.php/nce/article/view/NCE052015003	UGC recognized
An Approach to Block Ciphering Using Root of Perfect Square Number	Dr Pranam Paul;	CiiT International Journal of Networking and Communication Engineering	; ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.cii-tresearch.org/nce.html	http://ischolar.info/index.php/CiiTNC/article/view/103383	UGC recognized
An Approach to Block Ciphering Using Root of Perfect Square Number	Shibaranjan Bhattacharya,	CiiT International Journal of Networking and Communication Engineering	; ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.cii-tresearch.org/nce.html	http://ischolar.info/index.php/CiiTNC/article/view/103383	UGC recognized
Block based Data Encryption and Decryption using Algorithmic	Dr Pranam Paul	CiiT International Journal of Networking and Communication	ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.cii-tresearch.org/nce.html	http://www.cii-tresearch.org/dl/index.php/nce/article/view/NCE022015004	UGC recognized

Operations		Engineering				
Kruskal's Maximal Spanning Tree Algorithm for Optimizing Distribution Network Topology to Improve Voltage Stability	Dipu Sarkar	Electric Power Components and Systems	ISSN: 1532-5016 (Online)	https://www.tandfonline.com/toc/uemp20/current	https://www.tandfonline.com/doi/abs/10.1080/1532508.2015.1062818	TAYLOR & FRANCIS
Kruskal's Maximal Spanning Tree Algorithm for Optimizing Distribution Network Topology to Improve Voltage Stability	Sanjay Goswami	Electric Power Components and Systems	ISSN: 1532-5016 (Online)	https://www.tandfonline.com/toc/uemp20/current	https://www.tandfonline.com/doi/abs/10.1080/1532508.2015.1062818	TAYLOR & FRANCIS
Analysis of Spectrum Sharing in Cognitive Radio	Subhasree Bhattacharjee	CiiT International Journal	ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616	http://www.ciiresearch.org/	http://ischolar.info/index.php/CiiTW/C/article/view/101280	UGC recognized



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Similarity and dissimilarity of whole genomes using intuitionistic fuzzy logic	Subhram Das	Notes on Intuitionistic Fuzzy Sets	ISSN: 1310-4926, 2367-8283	http://ifigenia.org/wiki/Notes_on_Intuitionistic_Fuzzy_Sets	https://www.researchgate.net/publication/321837235_Similarity_and_dissimilarity_of_whole_genomes_using_intuitionistic_fuzzy_logic	ICI
A Comparative Study To Maximize MRR in Electro discharge Machining Process by Variation of Control Parameters using Taguchi Analysis	Akhtarujjaman Sarkar	International Journal of Engineering Research and Applications	2248-9622	http://www.ijera.com/	https://www.ingeniaconnect.com/content/doi/22489622/2015/00000005/00000003/art00055	UGC recognized
Influence Of Control Parameters On MRR In Electrical Discharge	Akhtarujjaman Sarkar	International Journal of Technical Research and Applications	2320-8163	https://www.ijtra.com/	https://www.slideshare.net/ijtra/influence-of-control-parameters-on-mrr-in-electrical-discharge-machining-edm-using-sn-ratio-and-anova-analysis	Google Scholar, DOAJ, Computer Science Directory, Q.Sensei



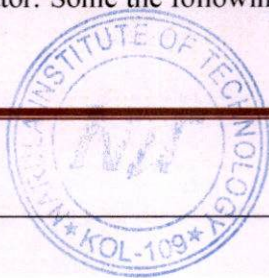
e Machini ng (EDM) Using S N Ratio And ANOVA Analysis		ons				
Thermal Modeling of III-V WBG- Based p- i-n Switch	Dr. M .R. Kanjilal	Springer	DOI: 10.1007/ 978-81- 322- 2274- 3_45	https://link.springer.com	https://link.springer.com/chapter/10.1007/978-81-322-2274-3_45	Scopus
Thermal Modeling of III-V WBG- Based p- i-n Switch	Payel Biswas	Springer	DOI: 10.1007/ 978-81- 322- 2274- 3_45	https://link.springer.com	https://link.springer.com/chapter/10.1007/978-81-322-2274-3_45	Scopus
An intellige nt energy manage ment system to optimise demand response in Smart Micro Grids	Dr. Sandip Chanda	IEEE	DOI: 10.1 109/CIEC. 2016.751 3745	https://ieeexplore.ieee.org/	https://ieeexplore.ieee.org/abstract/document/7513745/metrics#metrics	SCI
Study the effect of music on HRV signal using 3D	Dr. Anilesh Dey	IEEE	DOI: 10.1 109/ICCSP .2015.732 2652	https://ieeexplore.ieee.org	https://ieeexplore.ieee.org/abstract/document/7322652	SCI

Poincare plot in spherical Coordinate s - A signal processing approach						

Faculty Orientation Programme

About the Programme

Narula Institute of technology organizes Annual Faculty Orientation Program for all the new recruits every year. All the Faculty members, Technical Assistants and staffs spanning all the departments attend the program to learn from experts about various aspects of teaching and learning. The Orientation Program's primary goal was to familiarize the participants with their roles and responsibilities. It was designed to orient them on various generic aspects of teaching learning, instructional methodologies, and assessment and evaluation techniques. The curriculum consisted of three modules Pedagogy, Research, and Ethics in Profession. Day 1 focused on science and engineering core where NiT expert faculties show the participants how to prepare for lectures for various courses where topics ranged from physics, mathematics, electrical and electronics engineering etc. to project development. The second day started with lectures on curriculum constituents, academic structure of NiT, how to evaluate lectures and course monitoring, MOOCs, flipped classroom paradigms etc. On the third day included discussions on UG program, B. Tech. Project, faculty improvement, how to engage the UG and PG students in academic and extracurricular activities. On day four lab visits were organized to show them different laboratories at NiT. These tours included physics, chemistry, central workshop etc. Day 5 the group was divided according to their departments and visits were arranged to respective departments for closer interactions with faculty. These also included lecture on departmental core teaching strategies. As mentors we need to keep them motivated to evolve their teaching and research. We need to keep them involved in several activities through which they gain confidence and have a better understanding of their role as an educator. Some of the following activities that can be beneficial for them:



- Teaching- learning methodology
- Training on how to generate new learning materials.
- Course on research methodologies
- Course on technical reading and writing

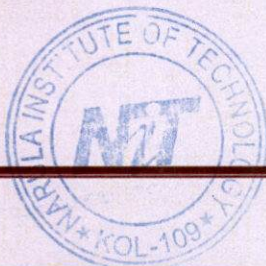
Objectives of the Programme

- To make the participants know the structure, functioning, governance, rules and regulations in Institutions of Higher Education and to orient them to become potential partners in institute building
- To enable the faculty to understand their roles and responsibilities in Higher Education and to impart essential professional skills, competencies and attitudes
- To enable the faculty to conceptualize the nuances of curriculum design and development in higher education at global standards.
- To train the participants in modern teaching methods and strategies
- To train the faculty on the use of ICT tools and integrating them in teaching and research
- To train the participants in methods of evaluation and assessment of diversified groups of students
- To provide research orientation to young faculty towards integrating research with pedagogy
- To develop practical knowledge in emotional balance of self and in student-counselling and mentoring
- To enable the faculty to generate new learning materials for enrichment of online open access platforms
- To provide knowledge about different models of leadership to the participants in order to enhance their academic leadership skills
- To enable the faculty to learn the principles of strategic planning and management.

Modules/Topics:

1. General Principles

- Welcome Talk – General Feature of Institute
- Presentation on Academic Structure at NiT
- Generic curriculum and its Constituents
- Learning evaluation through quizzes, exams, projects.
- Course monitoring mechanism at NiT
- Mentoring System



2. Basic Fundamental Subjects

- Core Physics – objectives, content, preparation, delivery, expectation
- Core Mathematics – objectives, content, preparation, delivery, expectation
- Core Chemistry – objectives, content, preparation, delivery, expectation
- Overcoming functional English deficiency
- Need for simple experimentation in classroom teaching

3. Departmental core

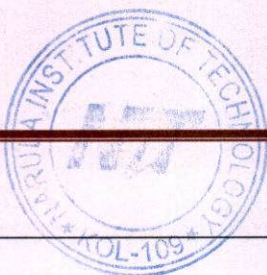
- Introduction to department – objectives, emphasis, course template, break-up of theory and laboratory component
- Session on department core – major theory courses
- Session on department core – major laboratory courses, including concept of lab lecture
- visit to labs.

4. R&D and Consultancy

- Discussion on Faculty improvement - continued research
- Scope of Consultancy

Resource Persons

Sl No.	Name	Department
1	Prof. J. K. Das	Electronics and Communication Engineering, NiT
2	Prof. Biman Mukherjee	Civil Engineering, NiT
3	Dr. S. Panda	Electronics and Communication Engineering, NiT

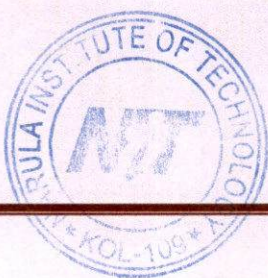
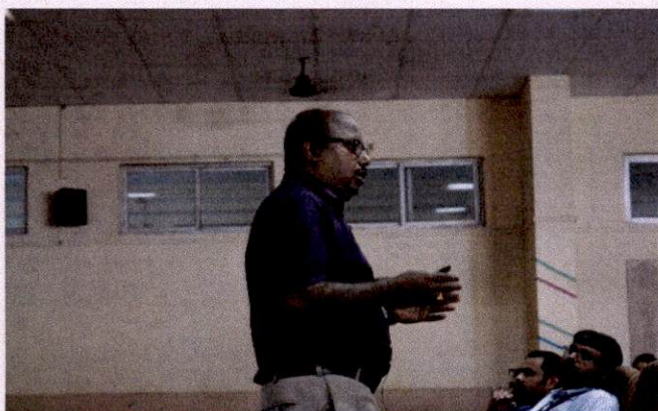


List of Registered Participants

Sl No.	Faculty Name	Designation	Gender	Department
1	Bikash Panja	Assistant Professor	Male	Mechanical Engineering
2	Ankesh Samanta	Assistant Professor	Male	Mechanical Engineering
3	Akhtarujjaman Sarkar	Assistant Professor	Male	Mechanical Engineering
4	Arya Banerjee	Assistant Professor	Male	Civil Engineering
5	Ushnik Chakrabarti	Assistant Professor	Male	Electrical Engineering
6	Sandip Chanda	Associate Professor	Male	Electrical Engineering
7	Reshmi Chandra	Assistant Professor	Female	Electrical Engineering
8	Sanchari Kundu	Associate Professor	Female	Electrical Engineering
9	Abira Sengupta	Assistant Professor	Female	Computer Science and Engineering
10	Susmita Das	Assistant Professor	Female	Electronics and Instrumentation Engineering
11	Dibyendu Sur	Assistant Professor	Male	Electronics and Instrumentation Engineering
12	Tamal Kanti Ghosh	Assistant Professor	Male	Basic Science and Humanities
13	Sharmistha Sikdar	Assistant Professor	Female	Basic Science and Humanities
14	Bikramjit Sarkar	Assistant Professor	Male	Information Technology



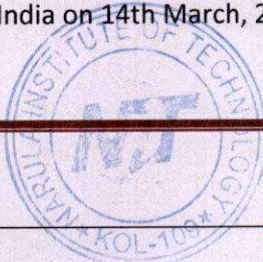
Some Glimpses of the Event



Chapter 7 Student Activities

Students Publication:

- S S Nath, M R Kanjilal, Swift heavy ion irradiated ZnS quantum dots and their applications as Nano LED, International Journal of Current Research (Accepted for publication, May, 2015) Impact Factor 5.349
- S S Nath, G Gope, A Ganguly, M R Kanjilal, ZnS quantum dots for nano devices, Journal of Science (Accepted for publication in April, 2015).
- S S Nath, M R Kanjilal, SnO₂ quantum dots for Nano LED, National Conference on Frontiers of Research in Chemical Sciences, March, 13- 14, 2015, D M College of Science, Imphal, Manipur
- Ms. Isita Mitra of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "Fusion Based High Level Salt and Pepper Noise Removal" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Mr. Abhrajyoti Das of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "Car Plate Segmentation with Sliding Concentric Window Technique" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Mr. Anup Sharma of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "Car Plate Segmentation with Sliding Concentric Window Technique" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Mr. Aritra Das of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "A Robust Factoid based Question Generation System" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Ms. Ishita Das of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "Detection of Malware Using Features Ranking and Its Classification Using Voted Perceptron Classifier Along with Virus Identifier And Alphabetic Precedence Marker" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.



- Mr. Nobhonil Roy Choudhury of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "Application of Chaos Game Tri-nucleotide Representation in Comparison of Coding Sequences of β -globin Gene" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Mr. Pratyush Choudhary of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "Improving Bit Board Move Generation in Chess" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Ms. Shreeparna Sarkar of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "A Robust Factoid based Question Generation System" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Mr. Susovan Nandy of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "Fusion Based High Level Salt and Pepper Noise Removal" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Mr. Vishal Nath Tiwari of Narula Institute of Technology contributed invaluablely by presenting the paper entitled "Detection of Malware Using Features Ranking and Its Classification Using Voted Perceptron Classifier Along with Virus Identifier And Alphabetic Precedence Marker" in the "Regional Student Convention 2015" organized by Computer Society of India Region II & Computer Society of India, Kolkata Chapter, held at Narula Institute of Technology, Kolkata, India on 14th March, 2015.
- Debanjan Chatterjee (MTech passout) and Prof. Arkendu Mitra published journal paper in online journal International Journal of Scientific Research and Management, ISSN : 2321-3418, Manuscript ID : 657608ijsrm
- Moinak Chowdhury, Dr Pranam Paul; "Block based Data Encryption and Decryption using Algorithmic Operations"; Manuscript No CIIT-IJ- 5668; Accepted and Published in "CiiT International Journal of Networking and Communication Engineering"; Impact Factor 1.953; ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616; February' 2015; pp 74 – 78
- Rajat Das, Dr Pranam Paul; "Block based Cryptographic Protocol using Sequence of Rearrangement of Points"; Manuscript No CIIT-IJ- 5712; Accepted and Published in "CiiT International Journal of

Networking and Communication Engineering”; Impact Factor 1.953; ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616; March’ 2015; pp 95 – 98

- Gopinath Mukherjee, Dr Pranam Paul; “Implementing the Information Security using Factors of Number”; Manuscript No CIIT-IJ-5713; Accepted and Published in “CiiT International Journal of Networking and Communication Engineering”; Impact Factor 1.953; ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616; March’ 2015; pp 99 – 102
- Anyan Banerjee, Dr Pranam Paul; “Block based Data Encryption and Decryption using Number System Logic”; Manuscript No CIIT-IJ-5876; Accepted for Publication in “CiiT International Journal of Networking and Communication Engineering”; Impact Factor 1.953; ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616; May 2015
- Rajat Das, Dr Pranam Paul; “Block based Cryptographic Protocol with Arithmetic Operations”; Manuscript No CIIT-IJ-5887; Accepted for Publication in “CiiT International Journal of Networking and Communication Engineering”; Impact Factor 1.953; ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616; May 2015
- Subhankar Ghosh, Dr Pranam Paul; “Cryptographic Algorithm Based on Triangular Form”; Manuscript No CIIT-IJ-5878; Accepted for Publication in “CiiT International Journal of Networking and Communication Engineering”; Impact Factor 1.953; ISSN (Print): 0974 – 9713 & ISSN (Online): 0974 – 9616; May 2015

Major Students Achievements

1. Debolina Sarkar from ECE Dept, Anik Karan, Satyajit Mahanta from EIE Department and Sourja Tilak Banerjee from CSE Dept has been selected for Master of Science degree in foreign universities like AIT, Bangkok, Louisiana Tech university-UK, university of Missouri-kansas City-UK, University Of Manchester, United Kingdom.
2. Neha Mazumder from CSE Dept. is pursuing her Masters in Computer Science from The Ohio State University, Columbus, USA.
3. Lakhi Singh from ECE Dept. have been selected for playing T-20 World Cup matches in the year 2016.
4. Subhdeep Roy from ECE Dept. working as scientist at BARC, Trombay, India.



5. Lakhi Singh Cricketer of Shyambazar Club, received the Woman of The Match trophy from Ms. Jhulan Goswami, Former Indian Womens' Cricket Team Captain in the 3rd Budding Womens' Cricket Tournament which was held in between Shyambazar Club (CCMCCC) and Vivekananda Park Coaching Club.
6. Joy Roy from IT Dept. has Developed A "Air –Drone" Model In The Tech Fest of NIT , KRITANJ , 2016 & Successfully Demonstrated in front of CII Officials.
7. Upasana Mitra from ECE Dept got 1st runner up position in the Miss India 2016 (Eastern India) finale.
8. Abhishek Brahma from EIE Dept. has published a book in the Kolkata Book Fair 2015. The title of his book is "The Rhapsody In Sync".
9. Rahul Sinha from Civil Dept. participated on regional round and got selected as "Zonal winner" to participate in National competition as 'solo singer' in MTV colours youth session-5.
10. Anjali Singh from CSE Dept. has been selected as Project Linked Person (Research) in Indian Statistical Institute (ISI), Kolkata.
11. Shikha Biswas from ECE Dept. got second position in the "Medical Science" section in 23rd West Bengal state science congress at Presidency College.
12. Khusbu Shaw received Sri Dewang Mehta IT Awards 2016 organized by NASSCOM , 2016
13. Shikha Biswas , received 2nd prize in the "Medical Science" section , 23rd West Bengal state science congress , held on 28th to 29th of February, 2016 at Presidency College .
14. Sumit Jha received 1st Prize for TOP RANK in 3rd Year B.Tech , Sri Dewang Mehta IT Awards 2016 organized by NASSCOM
15. Soumyarup Ghosh , participated in 7th All India Inter Engineering College Academic Meet 2016 & innovative Model Competition organized by FOSET
16. Santanu Das, Shuvam Bannerjee, Moulita Dhar, Rakhi Rajak, Anik Mitra, Sankha Bose , received 3rd Position Robotic Model Presentation Competition in SRIJAN'16 organized by Jadavpur University, on 26th and 27th February 2016
17. Bijan Changder, Aman Bogi, Ayush Gupta , Satyendra Kr. Pandit, Sushil Mahato, Poonam Jha , Students of ECE Department , demonstrated Project at International Book Fair 2016



18. Subarna Dey received 1st Prize for TOP Rank in ECE 3rd Year , Sri Dewang Mehta IT Awards 2016 organized by NASSCOM
19. Upasana Mitra is 1st runner up position in Miss India 2016 (Eastern India) contest. She will be participating in the Miss India 2016 finale.
18. Students of Narula Institute of Technology have published more than 100 research papers in various International and National conferences and journals in 2015-2016.



19. Nit became the Champion of the Unplugged Competition "Rhapsody" in Elixir'16 at B.P.Poddar Institute of Management and Technology on March,20. The Band members: Rahul Sinha, Subhadip Roy, Souvik Mitra, Subhojit Dey, Rudraneel Barik and Dipanjan Datta Roy won the hearts of the judges through their musical exuberance.
20. Ms. Anwesha Roy (ECE 2014 pass out) is selected for Erasmus Mundas scholarship (1000 Euro per month) by the European Union to study at Anglia Ruskin University, United Kingdom.
21. Football team of NiT participated in Inter college Football Tournament at MCKVIE and bagged the Runner's Prize.





22. Narula Institute of Technology bagged 1st position in fashion show event of BP PODDER ANNUAL CULTURAL FEST - ELIXIR'16 on 16th March, 2016.



EVENT name- FASHIONISTA

THEME- MISERABLE PLIGHT ON WOMEN IN INDIA

Characters played-- 1) Story teller- Snehi Suman 2)Sita- NivediTa Vissamshetty 3)Draupadi- Namrata Roy
4) Satidaho- Adrita Biswas 5) Lack of education among girls- Shilpa Maly 6) Forced marriage- Shalini Bash
7) Female foeticide- Madhuparna Das, Shreyashi Dasgupta 8) Power- Pamela Sinha

23. Sulekha Chanda, Diploma 1st year student and Rahul Sinha, B.Tech 4th year student of Narula Institute of Technology participated in Regional Round and got selected in Zonal Round as SOLO SINGER in Mtv Colors of Youth Season 5.....Sulekha was the winner of kolkata zonal round.



24. Drama Team of NIT "Axtericser Dolbol" was awarded 3rd position in the cultural fest of IIM, Kolkata "Carpe Diem". They competed with different Institutes from across the country.
25. On 21st January, our Students' Fashion team had participated in the UTSAV 2K16 at Vidyasagar College and bagged the 1st prize.
26. One enthralling news to share with all of you that Fashion Team of NiT participated in the fashion show at Techno India Fest (Anakhronos) and bagged the runner up prize

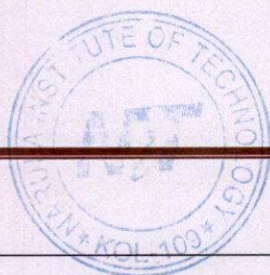
Narula Institute of Technology has won the 3rd **SJSCT 2016** students cricket tournament held in Gurunanak Campus during 4th to 6th February 2016.



students of EIE 2nd year, Soujatya Chaudhuri, Argha Mitra, Anumita Dey, Debatra Choudhury and Tirthankar Saha (under the guidance of TIC-EIE, Dibyendu Sur) have won the **2nd Best paper award in 7th Inter College Academic Meet organised by FOSET** (Forum of Scientists, Engineers & Technologists) in Electrical engineering and Instrumentation Engineering subsection on 13 March, 2016.

Shikha Biswas, M Tech- ECE, 2nd year student of Narula Institute of Technology published a paper in 23rd West Bengal state science congress, held on 28th and 29th of February, 2016 at Presidency College. She stood 2nd in the "Medical Science" section.

ECE 2nd year students of Narula Institute of Technology, SANTANU DAS, SHUVAM BANNERJEE, MOULITA DHAR, RAKHI RAJAK, ANIK MITRA, SANKHA BOSE secured 3rd Position in Robotic Model Presentation Competition in SRIJAN'16 organized by Jadavpur University on 26th and 27th February 2016



Seminar / Workshop Attended by the students

Sl. No.	Subject/ Matter	Date
1	Reort TEQIP Sponsored worksho on " Fundamentals of Electronics & Communication Systems, 2016	18-22nd July 2016
2	Report on Project Demonstration at Book Fair,2016	08.06.16
3	Report on a Seminar on "MEMS & Sensor Design"	13.01.16
4	Report on One Day Seminar "Recent Researches on Wireless Communication"	25.07.15
5	One day Seminars "Recent Researches on Wireless Communication" Registration Form	25.07.15
6	Notice, IEEE Certificate Will be given to the participants	22.07.15
7	6 th All India Inter Engineering College Academic Meet-2015 & Science & Technology Exhibition for a Sustainable Society	26.04.15
8	ELP Eminent Lecture Program	20.01.15
9	152 nd Birth Anniversary Celebration of Swami Vivekananda	12.01.15
10	PADARTH 2015, IIT BOMBAY	2015



Chapter 8

Training and Placement

Career Counseling Programs during 2015-2016

There is a necessity of proper guidance, training and career counseling to help the students deal effectively with the normal developmental tasks and face real scenario confidently. The Institute aims at providing not only higher education and knowledge but also the positive direction to students by making them quite clear and confident about their capability and thus correctly choosing the ir future path of career. Hence various career counseling programs, training and other related events are arranged every year. The details are as follows:-

1. Training on Aptitude & Verbal & Non Verbal Reasoning Test

To develop the logical reasoning capability and aptitude solving skills of a student, the Institute conducts rigorous Training on Aptitude and verbal and non-verbal reasoning classes and Mock tests from second year to final year. In the year 2015-2016, the resource person for this program was Mr. Tapas Mukherjee. He is a renowned national level trainer in the field of aptitude training, currently associated with Constellation Training & Placement Services. The duration of the training was 13.08.2015 to 18.12.2015. The total no. of students who attended the training program is 2511 (approx). The schedule of the training sessions was shared to the students in incorporating in the class timetable for all these programmes.

2, Mock Interview Sessions

The Institute conducts mock interview sessions for all the final year students. The objective is to gain the knowledge of different techniques for appearing in the interview. The resource person for this programme is Ms. Leena Sarkar, Dept. of BS & HU, Narula Institute of Technology and Mr. R.R Rajguru, GM Training, JIS Group of Educational Initiatives. Around 2019 students participated in this Training programme. The program started on 21.08.2015 and ended on 19.12.2015. This PI training was conducted once in a month throughout the whole semester for final year students.

3. Mock Test Sessions on Aptitude Training & Verbal & Non Verbal Reasoning

To enhance the technical competence of the students, the institute organizes different mock test sessions for all final year students. The programme commenced from 22.08.2015 and ended on 16.12.2015. Identity Training services Pvt. Ltd was in charge of this event. The total no. of students who attended this program was approximately 2173. The schedule of the training classes was shared to the students earlier by incorporating it in the ir usual class timetable



4. Mock Test Packages of various Companies for practice before placement drive

The institute offers the technical training from second year to final year students. Prior to the placement drive, the students appear for the mock test sessions through different test packages. Narula Institute of Technology has collaborated with external vendor like Co-cubes. The Co-cubes platform offers the mock test packages of various companies for practice of the students. The test packages have been offered before the placement drive.

5. Pre Placement Talks

To create the awareness about different companies among students pre placement talks were organized by the institute. A number of renowned companies like TCS, IBM, Hexaware, CTS, Persistent, Genpact, Wipro, Simplex Infrastructure visited our college in the year of 2015-2016. These talks were organized centrally by the Training and Placement cell of the institute. The trainers of these events were the concerned resource persons of the companies.

6. Problem Solving Based on Machine Learning and Data Science

To strengthen the knowledge in emerging technologies a seminar was organized. Machine learning allows the user to feed a computer algorithm an immense amount of data and have the computer analyze and make data-driven recommendations and decisions based on only the input data. The date of the program was 21.06.2015. The resource person was Ms. Chandrima Chakraborty, Dept. of CSE, Narula Institute of Technology and the total strength was 364.

7. Seminar on Application on Problem Solving in JAVA

Nowadays, Java is the basic requirement for the software industry. The topics like Big Data, testing tools, core desktop applications, Web applications, Testing Scripts, Android application development—these are the need of the hour. The students eager to learn the above mentioned topics need to have a core Java background. Keeping this thing in mind, Narula Institute of Technology organized a seminar on 13.09.2015. This session was addressed by Prof. Ms. Shyamapriya Chowdhury, Dept. of IT, Narula Institute of Technology. Total Number of participants was 463.

8. Symposium on Computer Vision and its Application in Industry

Computer vision is a field of artificial intelligence (AI) that enables computers and systems to derive meaningful information from digital images, videos and other visual inputs — and take actions or make recommendations based on that information. To motivate students in this field, the institute organized a session on AI on 12.10.2015. The resource person was Prof. Debrupa Pal, Dept. of CA, Narula Institute of Technology. The total strength of this program was 63.



9. What Industry Speak on ENERGY MANAGEMENT: Panel Discussion

The Energy Management can be broadly defined as the proactive, organized and systematic management of energy use in a building or organization to satisfy both environmental and economic requirements. To enrich students in the above mentioned topic, Narula Institute of Technology organized a panel discussion on Energy Management on 14.11.2015. Prof. Sudhangshu Sarkar, Dept. of EE was the resource person and the total number of attended students was 92.

10. Technical Workshop on Fluid Power Control Systems Developed by Bosch & Rexroth (German Based Company)

The Fluid power is the use of fluids under pressure to generate, control, and transmit power. To enhance knowledge in this topic the institute had organized a Technical workshop on Fluid Power Control Systems on 17.11.2015. The resource person was Prof. Rajkumar Banerjee, Dept. of CE, Narula Institute of Technology. The total number of participants was 91.

11. Demonstration on Robotic Arm for Industrial Applications

Narula Institute of Technology had organized a seminar on Arm for Industrial Applications on 08.06.2015. The seminar covered some applications of robots include welding, painting, assembly, disassembly, pick and place for printed circuit boards, packaging and labeling, palletizing, product inspection, and testing. The main purpose of arranging this type of seminar is to encourage more students in this field. The resource person was Prof. Anukul Maity, Dept. of CSE, Narula Institute of Technology.

Training for Competitive Examinations during 2015-2016

The training programs for competitive examination aims at motivating the students to participate in various competitive examination (GATE, GRE etc.) as well as preparing the students to face the challenges of the competitive examinations. It also helps creating awareness about different types of competitive examinations available for the students. This type of examination oriented training lays a solid foundation for preparation of such examination. The students develop insightful understanding of these examinations and can prepare themselves into a potential career avenue.

1. Training class for competitive exam GATE

To acquire the skill set of solving different problem for GATE (Graduate Aptitude Test for Engineers), Narula Institute of Technology has organized training classes for all the final and pre final year students of all departments throughout the whole semester (August to December). The faculties from different department used to conduct his training classes.



2..Training classforcompetitiveexamGRE

The GRE test is one of the most widely accepted post-graduate entrance examination, particularly in the United States and English-speaking countries such as Canada and Australia. The institute has organized training classes of GRE for all the final and pre final year students of all departments on 22.11.2015. The resource person was Ms. Rajasi Ray,Depto fBS&HU ,Narula Institute of Technology.

3. Trainingclass forcompetitiveexamUPSC/IES

To excel in any Govt. examination or in any administrative jobs, the Institute has organizedtraining classes for the preparation of UPSC/IES, for all the final and pre final year studentsof all departments on 19.03.2016. The session was addressed by Prof. SandhyaPattanayak,Dept.ofECE,Narula InstituteofTechnology.Theattendance was 18.

4. Trainingclass forcompetitiveexamIELTS

The IELTS Academic test is suitable for those aspiring to study in an English-speaking environment or university (higher education). The Institute has organized training classes forthe preparation of IELTS for all the final and pre final year students of all departments on 03.02.2016 with 11 students.Prof. Sharmistha Basu, Asst.Professor, English,NarulaInstitute of Technology o facilitated the students.

Training Snapshot:

- Beyond the Curriculum Training for 2nd & 3rd year students by the in-house faculty members & external trainingvendors.
- Aptitude & Soft Skill Training for the pre final & final year students by the external training vendors.
- Technical software training for the pre final & final year students by the in- housetrainer.
- Mock GDsessions
- Industrial trainings as opted by thestudents.
- MyPerfecticeongoing preparatorymodules



PLACEMENT RECORD FOR OUT GOING BATCH

Number of outgoing student	Number of placed student	percentage	How many students have cleared Civil Services and Defense examinations, NET, SLET, GATE and other competitive examinations	Number of student APPEARED in national / international examinations
710	593	83.52	8	40




CORE FEATURES

- A safe and peaceful environment • Relevant and responsive to the changing needs of our students and the society • Academic autonomy and flexibility • Sustainable and all-inclusive growth, including community outreach programmes • Lifelong commitment to learning • Encouragement of merit • Passion and motivation for work • Professionalism • Respect for law • Concern for the improvement of the society • Transparency in functioning of the Institute • Dedication to the Institute Values • Meritocracy • Unparalleled quality and excellence • Honesty, Integrity, Sincerity and Devotion • Trust and freedom with accountability • Appreciation and celebration of creativity • Willingness to try new ideas and make mistakes • Social and Moral responsibility • Respect for every individual, and diversity

WE THUS TARGET

- To build and develop an excellent institution for creating and imparting knowledge at the undergraduate, post graduate and doctoral levels, contributing to the development of the nation and the humanity at large.
- To develop leaders with vision, creative thinking, social awareness and respect for our values. • To foster excellence in teaching and research to make a global impact. • To be the leader for academic and industrial collaborations in various disciplines, nationally and internationally. • To create awareness of the true significance of learning and teaching. • To enrich local schools and communities through value-added interactions. • To encourage excellent language skills as part of the institutional culture. • To prepare students not just for their first job but last job as well.

I thus thanking all the stakeholder of this Institute and presenting the annual report of 2015-16


 Principal
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