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MESSAGE FROM THE CHAIRMAN

The NIST Autonomous (NIST), Institute Park, Berhampur, Odisha, was established in 1996 as the first NRI higher educational venture in the state of Odisha with an objective to build NIST as a center of academic and research excellence at par with International Research Universities in founder's home state. Nestled in the green hills of Pallur, the campus is spread over 60 acres with world class academic infrastructure, halls of residence, a sport complex and other facilities. NIST has established itself as a premier research institute in the country offering undergraduate, graduate, and Ph.D. programs and different disciplines in Engineering, Science, and Management.

NIST has set a benchmark through its outstanding academic programs, quality education, and innovative multi-disciplinary research in various areas. NIST has research collaboration and partnerships with universities around the globe [e.g., IAMS (Taiwan), Univ. of Electro-Communication (Japan), Brunel University (London), and NJIT (USA) …] and has strong industry-academia partnerships with multiple industries in different sectors.

Over the years, NIST has been constantly ranked highly in the country by various ranking organizations.

I had the opportunity meeting NIST Alumni on the sideline of a convention on July 4th in CA, USA. Each one of them has unique accomplishment and their success stories are second to none. NIST so far has produced over 16000 successful alumni, who are now based in different countries around the globe as technocrats, educators, scientists, industry leaders, entrepreneurs, social workers, and public servants. Almost a year back, NIST has celebrated its 25 years of glorious journey (25th anniversary - Silver Jubilee) on its foundation day on September 18, 2021. My sincere thanks to the NIST fraternity including faculty, staff, student, and alumni community for wonderful accomplishment at NIST till date. We have made tremendous progress so far, but we have miles to go, as our quest for excellence will never stop; our rich heritage and legacy will only continue and grow further.

I congratulate the entire editorial team for their hard work, diligence, and dedication in bringing out this edition of the NIST Chronicle.

Dr. Sukant K. Mohapatra

MESSAGE FROM THE PRINCIPAL

I am glad to inform you that our eventful life at NIST is now going to be documented in a historical document of the institute named"NIST Chronicle". I congratulate all the contributors and editorial board for this beautiful creation.

For more than 25 years, NIST has been the hub of excellence in both teaching and research. Our institute not only focuses academic growth but is also actively involved in the start-up and industrial collaboration to create an entrepreneurship and industry oriented mindset among young boys and girls. My heartfelt thanks to the honorable chairman Dr. Sukant Mohapatra and the dedicated team of faculties, striving hard to provide quality education and skills to the students which ultimately help them to excel in the fiercely competitive world.

As a result of the mutual effort of the faculties and strongly motivated students, NIST has also been able to break its own placement records years after year.

Additionally, our institute also indulges in creating a dynamic environment through various extracurricular activities that comprise 23 numbers of student clubs.

Over the next decade, I am confident that we will be seen as a leading research University in eastern India.

My best wishes! Keep Reading.

Dr. Priyadarshi Tripathy

LETTER FROM THE EDITORS

Now is the season of the end semester examinations. Students are deeply involved in their preparation. The students of current batch are special because of their exposure to hybrid education delivery. They have seen it moving from offline to online and again to offline classes.

We know that disciplined life is better than cozy life, and yet, the urge of bodily comfort drags us towards a comfortable life. In the same way most of the students know very well that, there is no substitute for offline classes and examinations, still they miss the online examinations because of the lack of rigour. There is no heaven without dying, and there is no substitute to rigour. A seed needs to break to facilitates the birth of a grand tree.

This contemporary issue "Online Examination" has been given a 360 degree angle analysis in this issue. Many other light & delighting facts & events are also being covered. We have tried to pack the life at the campus into a minuscule. Hope you will enjoy the reading.

❝ Kindness should become the natural way of life, not the exception ❞
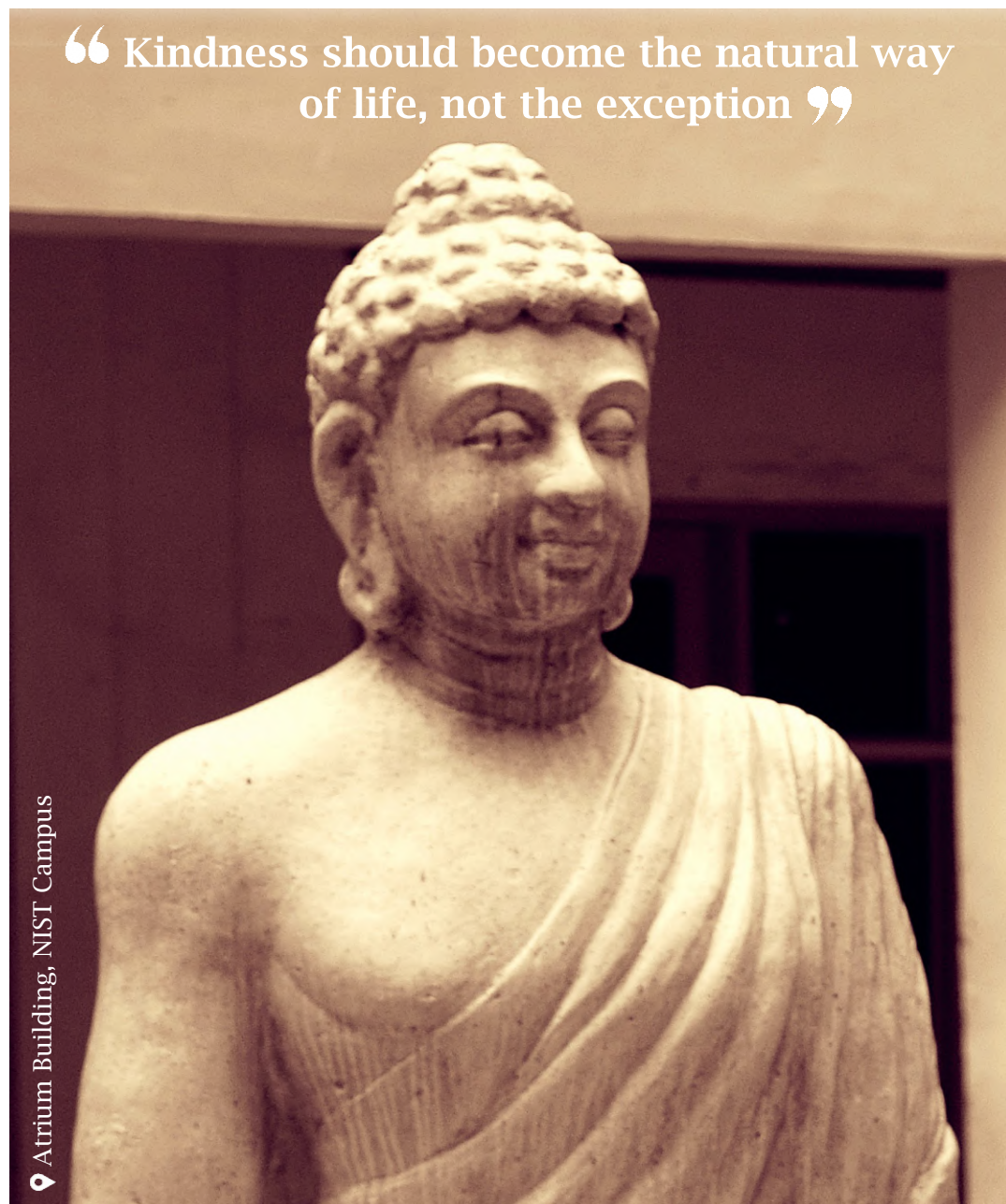
📍 Atrium Building, NIST Campus

FEATURE STORY

ONLINE EXAMINATION

Many of us get irritated when heard about the examination, some students also suffer fever due to extra fear of examination. If we analyze the true sense of examination, then we may evaluate many aspects such as analysis, learning, time management, grasping capacity and writing practice of a student. It also gives self-confidence and it teaches the art of doing work under pressure to students. We will never forget the serious challenge of the recent past during the COVID pandemic, which has directly affected so many among us. When covid restrictions are considered a new normal, attending Off line classes was officially stopped by the institution. As a result of which many Boards / Councils / Universities considered the last examination's mark as the final mark of the ongoing academic semester without conducting the examination. Few Universities& educational institutes conducted online examinations to evaluate their student. Hence examination lost its temper in its true sense. Attending competitive examinations through ONLINE mode is different things as compared to an academic ONLINE examination. Still, there are several benefits like; it is secure, cost-effective, reduced turn around time, fast evaluation process, etc.

The major drawbacks of the ONLINE examination are that it is susceptible to teaching and difficult to evaluate the long answer type question, and poor network connection in remote areas. This unsolved pandora box raises many doubts & questions in our minds. Such as what will be the future examination system. Weather student will go for online classes and online examinations? Is it really a cost effective and time saving way of getting an education? Whether it dilutes the dignity and the temperament of examination system? We asked these questions to the students, the experts, and the placement people to know their understanding and views on this contemporary issue. Here you will find what they see on their respective radar.

At first, a survey was conducted among more than 600 students on the campus, 71% of the student community secretly wish the return of the online examination whereas 14.9% are against the ONLINE examination, and 14.1 % of the total students prefer to remain neutral on this issue.

NIST CHRONICLE SURVEY

We all have seen the horror of corona in past. You were studying at that time while people were dying without oxygen. Online classes were the only medium for getting an education from your teacher.You have also appeared the exam through online and cleared it successfully.But the time has changed,the school & colleges have resumed offline mode. You are now facing the real challenge in the offline exam. In this context, "NIST Chronicle" want to highlight your current wish regarding the examination.

Do you secretly wish for the return of the online exam ?

659 RESPONSES

71.4%   14.1%   14.5%

○ No   ● Yes   ● Neutral
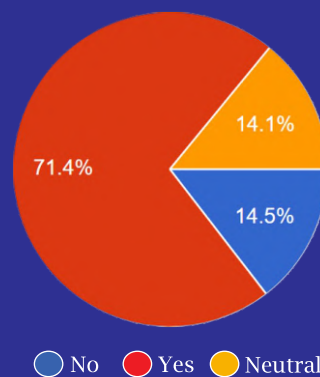
FEATURE STORY

Indian Institute of Science Education and Research (IISER) is well known globally for its teaching ethos, in this connection we wanted to know the views of the director Professor K.V.R. Chary and deputy director Professor Yogendra Sharma of the prestigious institute, IISER Berhampur through some pre-designed queries made by our editor Dr. Sushanta Kumar Sahu.

Professor K.V.R. Chary
Director IISER Berhampur

NIST Chronicle:What is your view on the effectiveness of online examination of theory and practical subjects?

Answer: We have no reservations about the online examination of both theory and practical subjects. However, the examination should be conducted under strict invigilation.

At IISER Berhampur, many of us faced several difficulties on online assessments, with students sitting in their homes and writing the so called online examination. In many instances, we have found that it is difficult to assess the true merit of a student through an online exam. Students were found to copy and paste. They would not keep the video on the pretext of internet bandwidth. As of today, with the pandemic around us for the last two and half years, the students are averse to even an offline exam. It appears to us that the students have forgotten the essence of examination system. When the number of students was small, we were to prepare a question paper, which was equivalent to an open book examination, where the creativity of the student was tested. In such online examinations, however, we could bring out the merit of the students.

In conclusion, the test should be to test the creativity of the student. Otherwise, it could be in Graduate Record Examination (GRE) mode. Whether it is online or offline mode, the examination should be conducted under strict invigilation.

NIST Chronicle: If the online examination is made permanent, how it will impact on the learning outcomes?

Answer: It should have a good or no impact on the learning outcomes. As we said earlier, the test should be to test the creativity of the student or it could be in GRE mode. Whether it is online or offline mode, the examination should be conducted under strict invigilation Without this option, online examination is not at all a good option for the future of students.

NIST Chronicle: Computer based tests have become mainstream now-a-days. What's your view on these? Whether it helps the students remain focused during the examinations? Or paper-based tests are better?

Answer: We have got introduced to more of computer-aided tests during the pandemic by an invisible creature. To start with we were a bit apprehensive about the outcomes. After a while, we were confident that it works equally well. It does not make any difference to the student. Computer-aided or in-person examination have similar outcomes and hence neither can be considered superior. However, the examination should be conducted under strict invigilation, whether it is online or offline mode. As teachers, we wish that a student should master the art of communication. Hence descriptive questions bring out the ability of the student's communication skills.

Naturally, this is possible in a person-paper-based examination system, which can be conducted more efficiently under strict invigilation.

NIST Chronicle: Why rigor in academics and fairness in examinations is essential for the wellbeing of students in the long run?

Answer: The main outcome of any academic activity and final examination is to make the student understand where they stand on the success ladder. Enabling her/him to know where she/he stands is essential in any learning process.

NIST Chronicle: What is your view on the learning strategy method and exam? Should a student prepare for the entire syllabus and beyond it ? Or should one prepare the most probable questions and aim to pass the exam?

Answer: Understanding, assimilating, and applying the subject to address any issue/project/problem is the essence. One needs to have breadth and depth in the subject. One should focus more on learning a subject rather than just focusing to pass an examination. The question paper set should attempt to assess the creativity of the student rather than just knowing the subject matter.

Professor Yogendra Sharma
Deputy Director, IISER Berhampur

FEATURE STORY

We may or may not admit the fact that the ultimate objective of a parent is to send their children to any college with the hope of getting a good job after a college education.

Online teaching or online examination may not a concern for a parent but it is a major concern for our HoD Placement & Career Development, Dr. Bhanu Prasad Behera, whose team has made a placement record of more than 90% to the CORONA batches recently. Hence it is essential to know about his views on the ONLINE examination.

Dr. Bhanuprasad Behera
Associate Professor
Dept. of Management Studies

NIST Chronicle: What is your view on the effectiveness of online examination of theory and practical subjects?

Answer: Due to the online examination of the theory and practical subjects, a lot of students have degraded in quality as they have started using unfair means to clear the examination. the tests.

NIST Chronicle: If the online examination is made permanent, how it will impact on the learning outcomes?

Answer: If the online examination is made permanent then it would impact the students in a negative manner. It would degrade the quality of the students to a major extent. However, there are some good quality students who would remain unaffected.

NIST Chronicle: Computer based tests have become mainstream now-a-days. What's your view on these? Whether it help the students remain focused during the examinations? Or paper-based tests are better?

Answer: As per my views, Computer based tests have helped the students to get quick results. Most companies have started doing the preliminary rounds on computers so that they can get quick responses and complete the rest of the process offline in a single day. Paper based tests are not better as it required more resources like paper, energy, and time to correct them after the tests.

NIST Chronicle: Why rigor in academics and fairness in examinations is essential for the well being of students in the long run?

Answer: Rigor in academics and fairness in the examination is essential because it would help the students to get acquainted with hardships in their future life and help them to overcome future hardships.

NIST Chronicle: What is your view on the learning strategy method and exam? Should a student prepare for the entire syllabus and beyond it. Or should one prepare the most probable questions and aim to pass the exam?

Answer: As per my views it is better to prepare the most probable questions to get passing marks. However, the students should prepare some extra questions to stay in the safety zone to clear the paper. The situation nowadays has become such that the companies have started giving less importance to grades and more importance to knowledge.

Now we are at the end of the discussion. NIST CHRONICLE does not have any conclusive remark on this issue. Our main objective is to empower our readers on different current issues which affect the present generation.

Future of Online Examination System
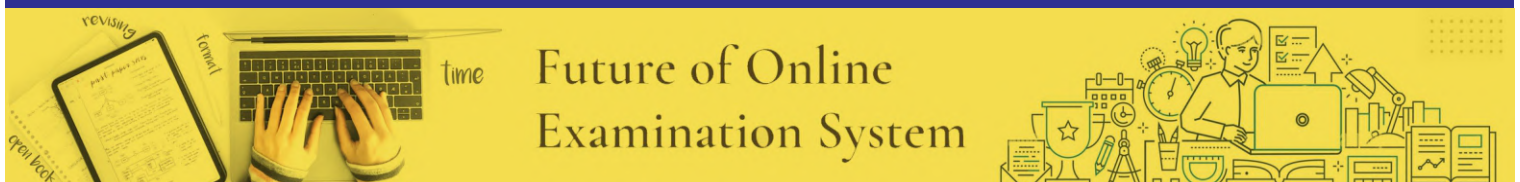
WELCOME TO NEW FACES OF THE NIST FAMILY

Dr. Radhakrushna Sahoo

Mathematics

Dr. Radhakrushna Sahoo has received his Ph.D.from the National Institute of Technology Raipur, 2022. His broad research area includes Wavelet Analysis,Time-Frequency Analysis, Fourier Analysis, Frame Theory, Wavelets methods for Partial Differential Equation, Harmonic Analysis & Gabor Analysis. He has cleared all the national level examinations conducted by Govt of India many times. He has cleared the most prestigious test NET in the year 2016,2017 & 2018 also GATE in 2019. He got the fellowship of the National Board of Higher Mathematics (NBHM) in 2018. He has one year of teaching experience before joining NIST (AUTONOMOUS) Berhampur. His work is getting acknowledged in many national and international journals and conferences.

Dr. Susanta Kumar Patro

Management

Dr. Susanta Kumar Patro is an expert in the field of Microfinance management. He has many degrees like M. Com, LLB & MBA in his credit. He has received his Ph.D. from Berhampur University. He has 25 years of teaching experience in management faculty in various academic institutes. He has completed his Master in Business Management from Punjab Technical university in 2010. He is very much interested to analyses the impact of banking services provided to unemployed or low-income individuals or groups who otherwise would have no other access to financial services. He has authored many national & international journals in his credit.

Dr. Namrata Pattanayak

Physics

Dr. Namrata Pattanayak is an experimental condensed matter physicist. Her broad area of research includes exploring weak ferromagnetic and piezomagnetic bulk and nano-materials for spintronic applications. She has received her Ph.D. in Physics from the Indian Institute of Science Education and Research (IISER), Pune. She has worked in NISER, ICT-IOC, and OUTR, Bhubaneswar before joining NIST in June 2022. Her current research interests involve the exploration of exotic magnetic properties induced by the strong spin-orbit interaction in transition metal oxides and related materials. She has published many of her works in the national and international journals.

Dr. Sudhananda Maharana is an expert in "Functions of single complex variables". His broad research area

Dr. Sudhananda Maharana

Mathematics

includes Geometric function theory, Special functions, Univalent harmonic mappings. He has completed his Ph.D. from Central University of Rajasthan and Post Doctorate at Indian Institute of Technology Indore.He has rich nine years of teaching experience in different academic Institutions. He has published several papers in the journals of national & international repute.

Mr. Anil kumar Biswal

Computer Science & Engineering

Mr. Anil kumar Biswal has submitted his thesis in Computer Science and Engineering from ITER, Siksha 'O' Anusandhan (Deemed to be University). He has also an extensive record of teaching for the past 7 years. He was a part of various research projects in past such as solving some social related issues like traffic with street light monitoring process, drowsiness detection system, designing women safety App, etc. He has authored and coauthored over 20 research papers in International Journal (SCI/SCIE/ESCI/Scopus) and conferences including IEEE, Springer etc. His research interest is in the area of Internet of Things (IoT), Cyber Security, and Wireless Sensor Networks.

INNOVATION & RESEARCH FRONTIER

NIST (AUTONOMOUS) Berhampur is a pioneer institute in research and development activities from its inception.It has been involved in various research projects from different government funding agencies (SERB/DST/NBHM/CSIR/UGC/DRDO/ISRO). The institute has set up modern laboratories and supporting infrastructure for under graduate, post graduate and Ph.D. students. Many students are working at different laboratories under the able guidance of our experienced faculties. The recent publications of our faculties and students are mentioned below.

RESEARCH PUBLICATION

Dr. Sandipan Mallik, faculty of ECE has published three following journals recently with five B.Tech final year students & other collaborators such as Dr. Nabin Baran Manik, faculty of Dept. of Physics, Jadavpur University, Kolkata, Dr. Dipankar Pal, faculty of Department of Chemical Engineering, Indian Institute of Petroleum & Energy, Vizag, Dr. Gufran Ahmad, faculty of ECE, Dayalbagh Educational Institute, Agra, Dr. Atanu Bag, Research Scientist of Sungkyunkwan University, Republic of Korea, Dr. Sanghamitra Das, faculty of ECE, Silicon Institute of Technology, Bhubaneswar, Dr. T. P. Dash faculty of ECE, SOA University, Bhubaneswar and Dr. C. K Maiti, ex- professor of Dept of ECE, IIT Kharagpur.

(A) "Biomimicking of Phyto-based Superhydrophobic Surfaces towards Prospective Applications: A Review", in Materials Research Letter (Q1, SCIE, IF: 4.2, doi: 10.1007/s10853-022-07172-1);

B)"Potential Soluble Substrates for Transient Electronics Applications: A Review" in AIP Avdavces (Q2, SCIE, IF: 1.53, doi: https://doi.org/10.1063/5.0066174;

C)"Experimental and Simulation Study of Charge Transport Mechanism in HfTiOx High-k Gate Dielectric on SiGe Heterolayers", in Bulletin of Materials Science (Q3, SCIE, IF: 1.7, doi: 10.1007/s12034-021-02622-z).

Dr. Manjushree Nayak, Associate Professor of School of Computer Science and Engineering, has published the journal entitled "Selection of Smart Manure Composition for Smart Farming Using Artificial Intelligence Technique" in Journal of Food Quality (Q2, SCI, IF: 2.45, doi: https://doi.org/10.1155/2022/4351825).

Dr. Kunja Bihari Swain and Dr. Murthy Cherukuri, faculty of School of Electrical Engineering published the journals entitled

(A) "Resiliency Estimation of Synchrophasor Communication Networks in a Wide Area Measurement System" in Frontiers in Energy Research (Q2; SCIE impact factor 4.0, doi: 10.3389/fenrg.2022.854676)

(B) "Power quality events recognition using enhanced empirical mode decomposition and optimized extreme learning machine" in Computers and Electrical Engineering (Q1; SCIE impact factor 4.15, doi:https://doi.org/10.1016/j.compeleceng.2022.107926)

(C) "Fast TT transform and optimized probabilistic neural network-based power quality event detection and classification" in Electrical Engineering(Q2; SCIE impact factor 1.6, https://doi.org/10.1007/s00202-022-01505-8).

Dr. Murthy has also published another journal entitled "Impact Assessment of Solar Power Generation Uncertainty on Smart Grid Reliability and Carbon Neutrality" in Frontiers in Energy Research (Q2; SCIE impact factor 4.0, https://doi.org/10.3389/fenrg.2022.851449).

Dr. Sasmita Padhy and Dr. Preeti Ranjan Sahu, Faculty of EEE have published a journal entitled "Marine predator algorithm-based PD–(1+ PI) controller for frequency regulation in multi–microgrid system" in IET Renewable Power

RESEARCH PUBLICATION

Generation (Q2, SCI impact factor 3.03, doi: 10.1049/rpg2.12504). Dr. Preeti Ranjan Sahu also published a journal entitled "Modified grasshopper optimization algorithm optimized adaptive fuzzy lead-lag controller for coordinated design of FACTS controller with PSS" in Journal of Intelligent & Fuzzy Systems (Q2, SCI impact factor 1.73, doi:10.3233/JIFS-212716)

Dr. U. K. Misra, Professor of Department of Mathematics published a journal entitled "An EOQ Model for Items having Fuzzy Amelioration and Deterioration" in Applied Mathematics & Information Sciences (SCOPUS, doi:10.18576/amis/160223)

Dr. Ranjan Kumar Padhy and Ms. Sarita Sahu, faculty of Department of Chemistry published the journals entitled
(A) "Oxidation of iminodiethanol by Ce (IV) in microheterogeneous system: a comprehensive kinetic analysis" in Journal of Dispersion Science and Technology (Q3, SCI impact factor 2.2, https://doi.org/10.1080/01932691 .2022.2026783)
(B) "Oxidation of triethanolamine by ceric ammonium sulfate in aqueous sulfuric acid: spectrophotometric kinetic and mechanistic study" in Monatshefte für Chemie - Chemical Monthly (Q3, SCI impact factor 1.5, https://doi.org/10.1007/s00706-021-02874-9).

FACULTY ACHIEVEMENTS

The true greatness of an institute can be measured not only by the beauty of the campus or student placement but also by the accomplishment of its faculties. We are blessed with such faculties members. The recent faculties achievements are mentioned below for our reader.

1. Dr. Manjushree Nayak, Associate Professor of School of Computer Science and Engineering was invited as a guest speaker by Bharti Vishwavidyalaya, Durg on 1st May 2022. She delivered a talk entitled "Sampling Techniques" for the candidates pursuing Ph.D program at that university. She was also invited as a guest speaker at DAV Autonomous College, Titilagarh, on 13th May 2022, where she delivered a lecture entitled "Introduction to Data Science and its Application" for the students of Computer Science program at that College.

2. The SERB project entitled "Low dissipative positivity preserving grid-free solver for Euler equation" has completed successfully by Dr. Souren Misra, Faculty of Dept. of Mechanical Engineering (PI of the project) and Prof. Santosh Kumar Panda, Faculty of Dept. of Mechanical Engineering (Co-PI of the project).

3. NIST congratulates faculty members: Dr. Samita Padhy, Assistant Professor, Department of EE, Dr Tushar Ranjan Sahoo, Assistant Professor Department of Management, Dr Amarnath Padhi, Assistant Professor Department of Management for successfully obtaining their PhD degree.

INTERNSHIP

If you have a burning passion for research but don't know how to start it, then NIST is the best platform. It does not matter whether you are NISTian or not. NIST has always kept research as its highest priority. So, NIST   Summer Internship (NSRI) is there for the outside students and Research Assistantship (RA) scholarship for NIST students.

1. The NIST autonomous is hosting the highly anticipated and prestigious NIST Summer Research Internship (NSRI) 2022. This summer research provides a wonderful chance for enthusiastic research scholars (B.Tech/M.Tech/MCA/M.Sc/MBA) to refine their talents and elevate themselves via interactive and hands-on work with their mentor guide and to transform their summer research projects into a B.Tech, M.Tech, M.Sc, or MBA academic projects. The program began on June 3, 2022, and will end on August. In this regard, more than 30 students from India and overseas, have joined NSRI 2022. In the future, the institute intends to arrange such research training workshops throughout the year to overcome time constraints and provide more room for learning.

2: The institute is conducting a Research Assistantship (RA) scholarship program to inculcate research aptitude in students that may lead to their career development, help in future prospects, and enhance their employability. Under this internship program, a total no of 25 students in the 2nd and 3rd years of B.Tech or 1st year students from M.Tech or MSc or MCA or MBA are continuing their research work under the esteemed guidance of the faculty members of the institute.

WORKSHOP, SEMINAR & TALK

In the rapidly changing world, the market is very much demanding. It is desirable for all the faculties and students to make them update to fulfill the industry expectation. The Conference, Webinar and workshop are the ways through which one can update his/her knowledge and skill. It makes the campus lively and acts as a bridge to infuse the ideas of experts into the minds of the students and faculties. NIST is always ahead of these activities. The recent activities were more exciting and informative.

## A Talk on "Reserve Bank of India & Changing Scenario"

The Reserve Bank of India (RBI) is the higher authority of all banks in India. It keeps reserves to secure monetary stability and is called a banker to banks. It regulates and supervises banks and other financial institutions. The RBI plays a vital role in the economic growth of the country and in maintaining price stability. We have to keep an eye on the economic conditions of our country with our daily work. In this regard, the Department of Management organized a talk titled "Reserve Bank of India and Changing Scenario" at Galleria Auditorium on 31 May 2022. Mr. Manabendra Misra, the former general manager and officer in charge of the Reserve Bank of India (Sikkim & Odisha) was blessed as the chief guest of that meeting. He has shared his experience in managing RBI with our management students.

IPR awareness Programme

NIST (Autonomous) conducted the IPR awareness program on 20.06.2022 under the flagship of Kalam Program for Intellectual Property Literacy and Awareness Campaign (KAPILA) supported by the Ministry of Education's Innovation Cell (MIC) and All India Council for Technical Education (AICTE). Shri Dhiren Pattnayak, Examiner of Patents and Designs, Patent Office, Kolkata, was the chief speaker of the program. Dr. Sandipan Mallik, faculty of ECE, was the moderator of the program. Many faculties across different discipline participated in this online program and understood the importance of different types of patents and their benefits from the expert Mr. Dhiren Pattnayak.
All the participants were awarded with the participant certificate at the end.

Faculty Development Programme by BPUT at Nodal center NIST (AUTONOMOUS)
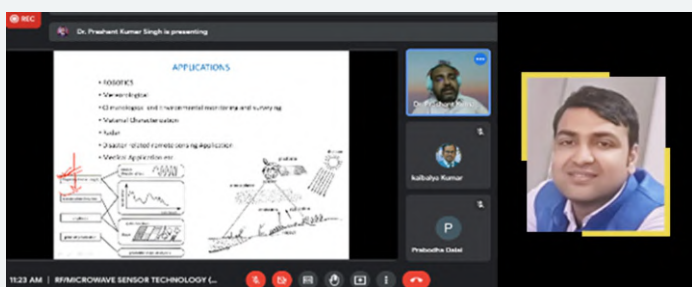
Department of Electronics and Communication Engineering, NIST (Autonomous) Berhampur, Odisha, Nodal Centre of Faculty Development Program (NCFDP) of the Biju Patnaik University of Technology, Odisha (BPUT) organized the 1st and 2nd online FDP for Faculty members under BPUT affiliated colleges, on 22.5.2022 and 10.06.2022 respectively. In the 1st FDP, Dr. Prashant Kumar Singh, Associate Professor of Department of ECE, University College of Engineering and Technology (UCET), Vinoba Bhabe University, Hazaribagh, delivered a lecture entitled "RF/MICROWAVE SENSOR TECHNOLOGY". In the 2nd FDP, Dr. Biswajit Bhattacharyya, Associate Professor of Department of Electrical Engineering, Jadavpur University, Kolkata, delivered a lecture entitled "THE ORIGIN OF BIO-POTENTIALS AND THE PROBLEMS OF ITS CAPTURE, CONDITIONING AND PROCESSING". Many faculty members of different affiliated colleges joined the webinars. Dr. M. Suresh, HOD of Dept. of ECE, NIST (Autonomous) Berhampur coordinated both programs.

INDUSTRY COLLABORATION

NIST Institute Park is spread over 60 acres of which 4.3 lakh sq.ft. make academic space that houses many Centers of Excellence and international standard research laboratories wherein our researchers and faculty work, and where industries invest into our ideas. NIST gives strong emphasis on collaborative industry research funded by Industry. Institute has built up strong industrial interaction with various industries for collaboration in research work. The institute has set up modern laboratories to achieve enhanced industrial participation in engineering education. Few recent achievements are included in this issue.

Academia-Industry Collaboration

Pipli Technologies

It is a startup working in the domain of artificial intelligence for business analytics. Their model predicts consumer behavior by taking a clue from historical data. Pipli has set up a development center in NIST where the development of backend processes and integration of tool chains takes place.

IG Drones

It is a technology service provider company that provides drone services for mapping, surveying, inspection, etc. in agriculture, disaster management, power transmission, hydrology, and other fields. IG drones have partnered with NIST for software product development and to indigenize drone production starting from design to prototyping and manufacturing. For the technology stack used in the drones, our faculty members and research students from multiple departments take part in the development of control algorithms and analytics platforms.

Protionix Technologies.

Popularizing STEM education among school children, Protionix has its footprint in 6 states of India. It manufactures robotics hardware kits, organizes STEM education events, and conducts robotics workshops in those states. Protionix was founded at NIST by two Mechanical Engineering Graduates of the 2018 batch. Currently, they have a development center at NIST that uses the fabrication facilities to develop educational toys.

Bariflolabs Private Limited

Bariflolabs is an Industry 4.0 compliant startup providing SAAS and FAAS to the aquaculture industry. Its patented aquaculture pond management system and water purification system based on bubble plume aeration technology have made it stand out technologically. Just to mention that in its foundational days, it had started at NIST itself. Bariflolabs has a development center at NIST where UG and PG students are working on projects. It is also funding four PG seats in Engineering to allow students to continue industrial research and product development during the study.

SCIENCE / ENGINEERING / JOB ARTICLE

TRENDING JOBS IN 2023: TIPS TO TRACK & CRACK

The majority of the 900 million workforces in India have stopped looking for jobs according to the Centre for Monitoring Indian Economy Pvt. Ltd.

Yet the scope for engineers has increased. India is going to have 12 million vacancies for engineering jobs in the next 5 years. During the fiscal year 2021-22, the engineering sector has made smart and reliable operations a top priority. There is an increase in 300% of hiring for engineering job roles in 2021-2022.

The World Economic Forum concluded that the top 5 emerging jobs in India include:

- Software Engineers
- Data Analysts
- Marketing Specialists
- Data Scientists
- Machine Learning Engineers.

According to a KPMG Survey, Students who are pursuing IT courses or Software engineering courses are likely to have a booming career trajectory by 2030.Currently, the US has the highest number of software engineers, while India is in 2nd place with 5.8% of Software engineers employed in the world. Finally, it is reported that India will have the largest population of Software developers by 2024.

Here's a brief salary insight about the Software Developers in INDIA:

Job Profile	Freshers(per Annum)	Intermediate(per Annum)	Seniors(per Annum)
Application Software Developer	INR 2,60,000	INR 5,00,000	INR 1,000,000
System Software Developers	INR 2,35,000	INR 5,90,000	INR 2,000,000
QA Engineers	INR 1,80,000	INR 3,87,000	INR 8,40,000
Security Engineer	INR 2,10,000	INR 5,11,000	INR 1,000,000
DevOps Engineer	INR 3,13,000	INR 6,74,000	INR 2,000,000

So, what should you consider before going for the right course for your career? Here are 3 tips to follow:

1. Do Proper Research What You Want:

It is a time and age when students can get easily carried away by parents and friends. But the main thing is what your interest is. You need to do proper research on what is the market need, what kind of jobs are there in the market, and what would be the prospect after 4 years. So the main tip is to research thoroughly on factors you can easily make your selection of engineering branch without any doubt.

2. Look Beyond What You See:

This tip states that you should know that your engineering branch is based on, not just the four years you will be studying but you have to look beyond what the prospects are there for that engineering branch after 4 years of your course. Although there are enough opportunities in each branch you must look beyond what you see.

3. Don't Avoid Counselling:

Counseling is very important when you are going to get admission to an engineering college. Even if the college you are eligible for is not on your list you must attend the counseling sessions. Don't avoid counseling as it is the first step to understanding the college in a better way. It also helps you to choose the best engineering branch. So never avoid or skip the counseling dates.

4. Talk to The Alumni: (Bonus Tip)

One of the best tips for students that will help them choose the right engineering branch is to talk to the alumni. Nowadays when social media is very popular, it can be used to reach out to alumni through LinkedIn and other networking sites. Need to get in touch with them and seek their feedback. You can ask them about the relevant groups and can get connected with others too to get a better idea about the college and engineering branch.

Final Words:

Engineering students or graduates need to be resilient and have a very open and flexible mind in their professional life. They should be open to the idea of temporary and freelance job opportunities as the gig-economy trend is flourishing.

As the world faces a major health crisis, hiring across pharma and healthcare has especially picked up, leading to a surge in demand for qualified engineers.

Online teaching and learning have flourished and work from home (WFH) has become the new norm. WFH culture will remain for some time, at least in hybrid mode.

Companies are hiring through online interviews and assessments, while technology is enabling an ecosystem of employment without the physical presence of employees.

EVENTS

Never Say Goodbye

Farewell is not all about to say Good bye, it's just a bye until the next meet. Many students shared their emotional views like, they will miss those little moments of fun- whether it be playing in the playground, or chilling in the canteen, or chatting in the corridors, after college career they may get new friends but they will never get the same college friends or this environment. It was the fare well function of Department of Management Studies for their MBA final year students. Which was held on the 6th day of July 2022 at Galleria Auditorium. The evening was filled with fun and laughter, followed by a farewell speech and dinner for all faculties, staff, and students.

Club Activities

The wholesome development of students is an avowed aim of the institute as enshrined in its vision statement. There are 23 numbers of different types of student clubs functioning inside campus comprising science, art, culture, music, dance, photography, management, and engineering activities. Our student rock band group has been awarded many times outside the campus. Student' clubs such as Robotics club, Renewable Energy club, Astronomy club, Club Innova, Club Excel, and Programming Club add the technical zing to outside the classroom activities. There is a glimpse of recent club activities is discussed for our readers.

1. Cloud Computing

Did you ever think about that the number of Internet users in the whole world? And where does the data go when we save or delete something from our device? It seems quite interesting when you think about the number of data sets maintained per day. Whether you experience a power failure or other crisis, having your data stored in the cloud ensures it is backed up and protected in a secure and safe location. What if you get a chance to access all of this with proper guidance? Here we are from the cloud computing club NIST. Here we are researching more about cloud storage. Cloud Computing Club has organized an event on 5th July for 1st year freshers' students in the name 'BRAIN TEASERS' to generate interest. There were many exciting prizes for the winners.

2. Blood Donation Camp (NCC& NSS)

Our NIST's National cadet corps (NCC) & National Service Schemes (NSS) with the help of the student activity center (SAC) organized a blood donation camp on 23rdJune 2022 at the Octagon building with the support of Blood bank Berhampur. Chairman Dr. Sukant Mohapatra was present there to encourage student volunteers. Many students voluntarily came to donate blood. The whole camp was well coordinated by the student activity center (SAC) co ordiator Mr. Saroj Padhi, Program officer Mr. Siba Prasad Tripathy & Mrs. Pradipta Biswal from NSS. Nilesh Dalai (NCC, CTO), Mr. Pabitra Kumar Gouda (NCC PI) were present throughout the day.

3. Electronic Hobby Club (EHC)

In today's generation, you may or may not find a pen inside a person's pocket but you will definitely get a mobile phone in the pocket. The mobile phone is nothing but an electronics device, which is influencing the world market. These hardware circuits are really interesting and not less than any magical box. NIST's Electronic Hubby club (EHC) has organized a 3 day "ELECTROKRITI VERSION14.0" workshop from 27th June to 29th June 2022 for the first year students to aware them about the basic electronics tools & techniques. The workshop incited the young minds to think of different ways of creating various working models.

4. NIST Counseling Service (NCS)

Society, parents, and relatives have high expectations from young boys and girls, who just have started their college life. Heavy and continuous classes, afternoon lab, compulsory attendance, internal, quiz and assignment of all subjects create huge pressure on their mind. Nobody is there to listen to their agony because all are part of the rat race. His/her mind shouts in silence for a friend who can at least listen to them & here is the friend, named NIST Counselling Service (NCS). Who not only listens but tries to solve it like a best friend. To break the silence, NCS has organized an event "Connect to Escape 2.0" on 16th June 2022 for the newcomers.

STUDENT SUCCESS STORY MATTERS

Mr. Soumya Ranjan Dash

B.Tech 3rd Year
Electronics and Comm. Engineering

MS (EE) at University of Pennsylvania, USA

To study or do research in foreign is more interesting right? What if you get a chance to do it at the University of Pennsylvania? It seems quite interesting while thinking about it. It is one of the world's most prestigious research and academic institutions, with a research budget of nearly $1.1 billion and more than 5,000 active faculty members. Now meet Mr. Soumya Ranjan Dash (ECE, 2022 Graduate). He has been selected into the Electrical Engineering, MS Program at the University of Pennsylvania. UPenn has procured 13th rank in the QS World University Rankings in 2022.

Mr. Debasish Panda

B.Tech 3rd Year
Electronics and Comm. Engineering

Master's Program in Medical Technologyat IIT Jodhpur

Mr. Debasish Panda joined in Master's Program in Medical Technology jointly conducted by IIT Jodhpur and AIIMS Jodhpur. He also offeredd for MS degree at National Taiwan University (NTU) and John Hopkins University USA.

Mr. Arup Mohanty

B.Tech 3rd Year
Electronics and Comm. Engineering

International Start Up Enrichment (ISTE)Tour to Singapore

Mr. Arup Mohanty) got selected for the prestigious ISET-(International Start-Up Enrichment Tour) to Singapore from 28-05-2022 to 05-06-2022 with a scholarship. The selection was based on a case study competition conducted by IIT-DELHI in collaboration with LWT Academy in 2021. More than sixty-six delegates were selected from various institutions across the Country like IIM, IIT etc. All the delegates visited the Singapore chamber of commerce and Industry (SCCI) by Govt. of Singapore and participated in conferences on Block-chain and other future technologies etc.

Mr. V Someshwar Rao

B.Tech 2nd Year
Electronics and Comm. Engineering
One day Additional Loco pilot WAP7 Passenger Train (Puri-Sambalpur Railway division)

The great statesman Mr.Abdul kalam once said, "A dream is not that you see while sleeping, it is something that does not let you sleep". There was a dream for Someshwar which does not make him sleep for many years and now it is fulfilled with the generous cooperation of Indian Railway officials. Now ourNISTian Mr. V Someshwar Rao of ECE 2nd year has successfully fulfilled his dream of a locopilot. He had a dream of to drive a locomotive. On basis of his request, the Indian railway provides him a great opportunity to be an additional loco pilot in Sambalpur division. During this program, he was assigned as an additional loco pilot in WAP7 (the latest version of passenger engine) running from Sambalpur Jn. to Puri. Before that a short term training was provided to adequate with the system.

Mr. Rohit Raj Padhi

B.Tech 3rd Year
Electronics and Comm. Engineering

Summer Research Internship at CSIR-IMMT BBSR,Odisha

Internship plays a vital role in every engineering student's life. It helps the student to gain experience and to place in a better company.NISTian Mr. Rohit Raj Padhi, 3rd year student of ECE has recently successfully completed the Summer Research Internship 2022 program organized by CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar under the supervision of Dr. D. P. Das, Sr. Principal Scientist and Head in the department of Process Engineering and Instrumentation (PE&I).
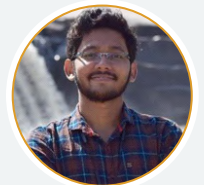
Mr. Sayed Imran and Mr. V Roshan Kumar Patro
B.Tech 2nd Year, Computer Science and Engineering
Google Cloud Facilitator, Trainer to 1200+ students

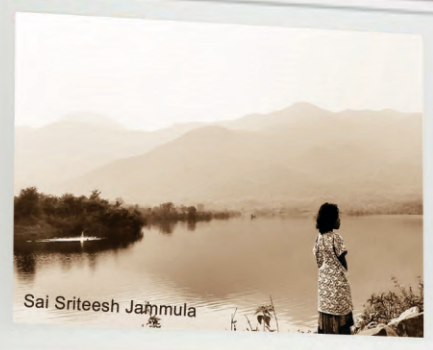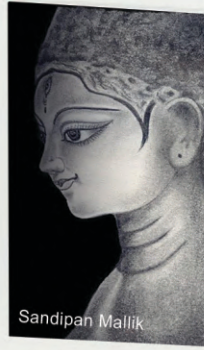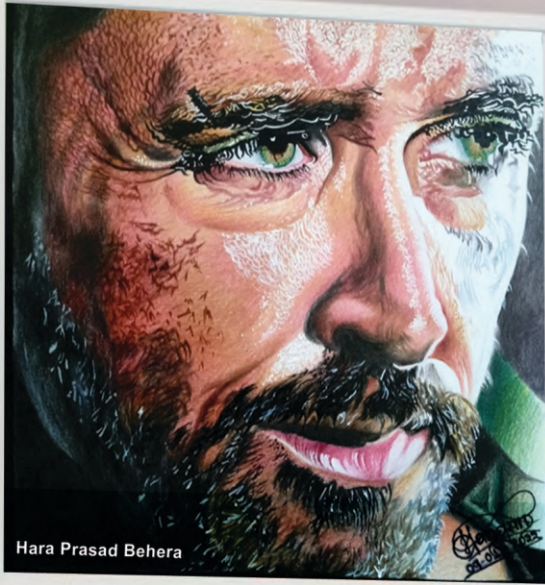Mr. Sayed Imran and Mr. V Roshan Kumar Patro of the Computer Science and Engineering Department, in partnership with Google Cloud, were selected as facilitators & undergone a one-month training of Google Cloud Platform first and mentored over 1200+ students all over India and from NIST including all years of students over a period of three months to introduce them to Cloud Computing, Application Development, Big Data & Machine Learning using Google Cloud's training platform called Google Cloud Skills Boost, where they learned each of the topics using self-paced labs that provided temporary credentials to Google Cloud Platform. Under this program, one could learn the cloud using the real thing and make the student's cloud future ready. It is a great milestone achieved by the NISTian successfully at a national level with the Google Cloud.

ART, PHOTOGRAPHY & LITERATURE

Art & Photography

Hara Prasad Behera

Sandipan Mallik

Sai Sriteesh Jammula

Prachi Raj Singh

Hara Prasad Behera

Namrata Pattanayak

Sandipan Mallik

Khusi Gupta

M Sapana Achari

Niket Kumar

M Sapana Achari

For artist details please contact ✉ epublication@nist.edu

ART, PHOTOGRAPHY & LITERATURE

Literature

Poetry

ILLUSIVE WORLD

Yesterday I did not even know what "Buffon" meant
And THIS CROWD made fun of me by calling me "Buffon"

Today when I have a reputed personality,
Then THIS CROWD felicitates me with vitality.

Yesterday when I was not able to crack my goal,
THIS CROWD whispered, my dreams are just black hole.
Today when I nailed it,
Again THIS CROWD complemented on my role

Yesterday when I was wrong,
Here's the crowd who came first and showed finger to me.

Also when I was right & raised my voice against the vice,
Again THIS CROWD incited me.
But..
Today when I need their support,
THIS CROWD just disappeared silently
And became care free...

@Monalisha Sahu

SILENCE

Silences are sounds,
Sometime, come to listen..
They'll blossom by just touching
You,
Sometime call them home.
They are restless to talk to you
Let them speak..

Have you been to that street ever
again...
That the world has not passed by for
Long..
My time is stuck there only...
What do I tell you what has hardened
With me..
Silence are a musical instrument,
You bring some tune,
Silence are words,
Come, sometime listen it with me..
They're restless to talk,
Let them speak for a bit..

Even the river water flows silently
here,
There are a million silences hidden
in blossoming moonlight..
Where do raindrops ever have
tongues,
In burning hearts, there is for
rising silently..

Silences are Sky,
Come, come to fly..
Silences are feelings,
Do you feel them?
They are restless to talk with you,
Let them speak...

@Shatabdi Dash

A SWEET CONFESSION

Neither they are lovers
Nor just friends...
Each one's heart sings the song of pain
When the sky showers again..
Though they oppose each other's claim
Still the beats of their hearts are the same..
He always prefer the "SEE U" rather than "BYE" tag
Still she often says "BYE" to pull his leg..
Trying to behave just like friends,
But resting curiosity in the eye lens..
Both of them can't understand what happened
They made for each other but only as a friend, they pretend
They tease, they fight, they strife , they argue;
But never forget to say "Take care Buddhu"..
A little cuteness, a little weirdness still survives even in the rudeness..
But it was all destiny designed;
Thus they say "SOMETHINGS ARE BETTER LEFT UNSAID"

@Monalisha Sahu

FIRE

Your charming,
charismatic
personality
Eventually made
me a casualty
For, how long
can snow
remain frozen
When there is a
brazen fire
in the vicinity?

@Namrata Pattanayak

STILL ALIVE

With SOME
Broken promises
Bended principles
Half written letters
Unspoken words
Periodic oscillations of
The nostalgic nights
And let go of the past
The love for you
Is STILL alive
In my heart.

@Namrata Pattanayak

ALUMNI SPEAK

Mr. Manoj Padhi
Master In computer Application (MCA)
Batch: 2002-2005

He was the first batch of NIST. Like today, NIST was also much popular for its computer learning courses such as B.Tech (Computer Science & Engineering) & MCA in 2002 for its quality teaching & placement record. Which led him to choose NIST for his MCA course. He started his career as a software engineer in Mahathi Software Pvt Ltd, further he worked for National Cash Register & now working as a senior software engineer in Eagle Technology Resources Pvt Ltd at Bhubaneswar. He has expertise in C++, Java, Python SQL, PERL, and DevOps tools such as Jenkin, Kubernetes and docker.

We had a candid talk with him about his college days. How was NIST at that time, about his favorite place, his memorable moments on this beautiful campus & many more interesting facts? Hope you will enjoy this conversation.

NIST Chronicle: What is your story related to joining NIST ?

Manoj: Mainly MCA courses started in the year 2002 on NIST. As I knew NIST gave good placement for B.Tech students at that time. I got the free seat as per OJEE counseling so fees are also less than 35k per year. Overall placement, fees, and Quality education wise NIST is a good engineering college in Odisha and the southern part of Odisha.

NIST Chronicle:What is remarkable memory with friends that you made while you were at NIST ?

Manoj: I have a lots of good memory at NIST. Might be some good and some bad memory. Always, every day was special on college days. It is a 2-way road. Either you change their life by being an inspiration to them or they will change your life by giving a lesson. Late-night conversation, Late night reading/writing, Bunking lectures together and doing Project/Assignment work with friends room are the sweet memories of my life on campus.

NIST Chronicle: Do you recall any location at "NIST" that reminds you of getting motivated or hanging your course of action?

Manoj: I still remember the location "Octagon" where my classroom, lab, library, Internet café, and cafeteria resided. I was spending all my time there and visualized my dreams with my friends. First day onwards college priorities the task. First semester onwards they teach us C, JAVA, ORACLE, and SDLC life cycle stuff which is beneficial for all students. College gave us a good lab facility to practice coding on lab so that our logical thinking improved more and more each semester. College/professors encouraged us to appear for the certification courses like JAVA, ORACLE, etc.College and all professor's efforts motivated us to succeed in our careers/life.

NIST Chronicle: If a student of +2 or high school would seek your advice on making a career what would be your advice or may be you would like to give them a mantra(or) a few thumbs rules anything?

Manoj: First thing needs to select of right career stream and subject combinations. Make your passion your profession. Just think about what you are good at and tirelessly work on that to build your future. Otherwise, you'll have everything except happiness. So just be wise to choose your path. In India, parents and students think science is the only stream we can make it career. In my point passionate about the interest of subject so that we may crack the career easily and life will run smoothly.

NIST Chronicle:Let's we have invented the time machine and you have been authorized to do time travel (round trip) once, which you would like to change if possible?

Manoj: One thing I want to change the grading system. For me every one of us is unique and talented. But this grading system has made us scared and diverted all of us from our end goals. So, I want to remove the grading system, if I would get a chance to access the time machine.

NIST Chronicle: What is your take on earning? Desk Job/Field Job/Research/Entrepreneurship or even Freelancing: What works best?

Manoj: Good salary as per market standard. I am working as Research & Development fields. Every field is best, we need to be satisfied with work and earns.

NIST Chronicle:Any message that you would like to give to the new students?

Manoj: My messages to new students are that always you feel unique, special, and wonderful so that you can easily conquer your goal. Experience is one of life's best teachers. But if you don't study hard probably never get any experience in the 1st place. So, work hard and focus on the subject that you study.

NIST Chronicle: Anything you want to say to our reader

Manoj: Dr Ravi P Reddy, Anisur Rahman, and Dr. Arun Kumar Padhi influenced me a lot and also my friends because they taught us how to crack the Interview. How to become a good programmer so that we could able to get success in computer/IT field easily. They always encouraged us to learn new things on each semester. We remain grateful to those teachers who have made what we are today.
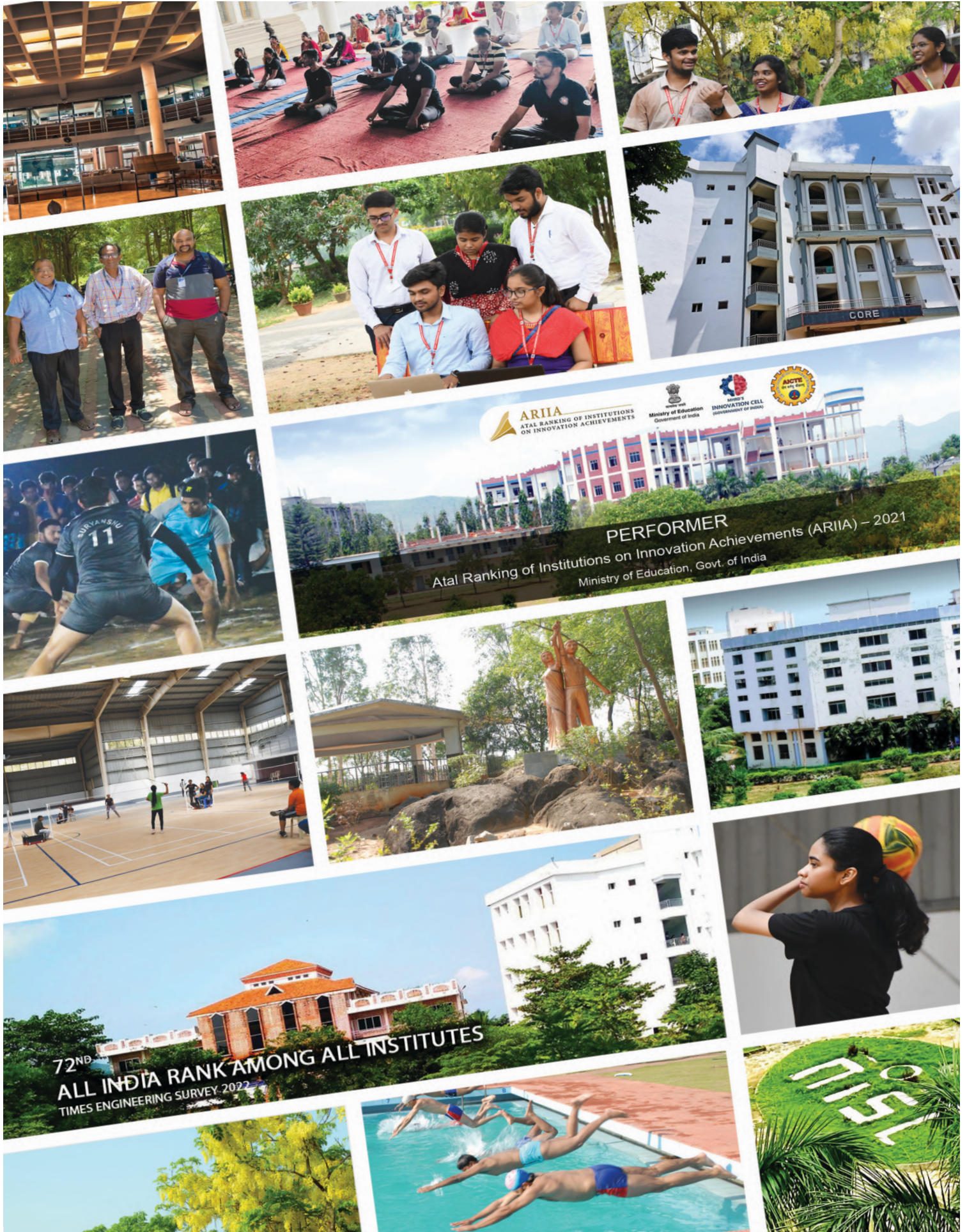
CAMPUS TOUR

PC: Sibaram Sahu, Vibek Bhardwaj & Prachi Raj Singh

CAMPUS TOUR

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