2017-2018

Annual Report





TEQIF

Nanhi Pari Seemant Institute of TechnologyPithoragarh, Uttarakhand, 262502

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Introduction

Nanhi Pari Seemant Institute of Technology, Pithoragarh is one of the constituent institutes of UTU, Dehradun, established in 2011 by the Govt. of Uttarakhand to promote the technical education in Seemant areas of the state. The name of institute changed as 'Nanhi Pari Seemant Engineering Institute, Pithoragarh' by Uttarakhand State Govt. Order Dated 30 July 2016. The institute provides undergraduate education in five disciplines i.e. Computer Science & Engineering, Electronics and Communication Engineering, Mechanical Engineering, Electrical Engineering and Civil Engineering intake of 60 in each branch; fostering spirit of state integration among the students. The vision of the institute is to produce a world class Technocrats and entrepreneurs for the benefit and upliftment of the society. The Pithoragarh town is located at a height of 1645 meters above sea level. The district lies between 29.4° to 30.3° North latitude and 80° to 81° East longitude along the eastern and southern part of the central Himalayas with Indo-Tibetan watershed divide in the north and the Kali river.

Mission

- To shape NPSEI, Pithoragarh into an exciting place for learning, teaching, and research.
- To establish the process of learning that is free, fulfilling, and an enjoyable experience.
- To provide an enabling environment to nurture critical and creative minds, and to propel them to greater heights of excellence in their pursuits.
- To create a vibrant atmosphere that breeds front runner innovators, scientists, engineers, entrepreneurs, academicians and thinkers of tomorrow.
- To provide opportunity for students to learn from wherever, however, and whatever they choose to study.
- To make NPSEI, Pithoragarh the preferred destination for future generations of students, staff, and faculty.

Vision

 NPSEI, Pithoragarh as an institution for higher learning in science and technology, aspires to develop top notch scientists, engineers, leaders and entrepreneurs to meet the needs of the society-now and in the future. Furthermore, with the spirit of high work ethic and service to the society, NPSEI, Pithoragarh seeks to undertake ground breaking research, and develop breakthrough products that will improve everyday lives of our communities.

Academics

Program Offered and Intake

The institute offers the undergraduate programme for the students. The details of the intake are shown in table 1.

S. No	Branch	Intake
1.	Computer Science and engineering	60 per year
2.	Electronics and communication engineering	60 per year
3.	Electrical engineering	60 per year
4.	Mechanical engineering	60 per year
5.	Civil engineering	60 per year

Table 1: Number of intake in respective branches

Departments

- Civil Engineering: To offer Under-Graduate program in civil engineering and other skill development courses that add value to student competencies. To promote quality education, research and consultancy for industrial and societal needs. To inculcate moral and ethical values among the students. To impart knowledge with emphasis on the development of leadership qualities in students. To provide state-of-the-art resources that contributes to a congenial learning environment. To encourage students to pursue higher education and take competitive exams and various career enhancing courses. To establish centers of excellence in emerging areas of research. To have regular interaction with industry and offer solutions to their problems.
- Computer Science and Engineering: The Computer Science & Engineering department offers courses leading to a Bachelor of Technology (B. Tech) in Computer Science and Engineering. The department has qualified and experienced faculty members in the areas of Computer Architecture, Database Systems, Image Processing, Artificial Intelligence, Data Mining, Wireless and Sensor Networks, Computer Networks, and Software Engineering. There is widespread interaction between the Computer Science and Engineering department and various other departments like Electrical Engineering & Electronics Engineering in the field of teaching and research. The overall personality of the students is taken care keeping in mind the following aspect:
 - 1. To provide a sound academic and technical infrastructure augmented with extracurricular facilities to ensure the all-round development of the students.
 - 2. To produce professionally qualified engineers who stand at the cutting edge of the technology and provide an impetus to the global economy.
 - 3. The laboratories are using Windows 10 and LINUX 8.0 operating systems. The languages supported by teaching staff are C, C++, VC++, Java, .Net, PL/SQL,

- etc. so that students should be aware about market competence. The CSE Department undertakes many projects in the area of Mobile Computing, Digital Image Processing, Web technology, Computer Network including Securities for Internet & Intranet. The students develop application software as well as system software's.
- 4. Spacious lecture rooms with well-equipped latest learning facilities are major concern of the Institute. It also facilitate modern network lab, well stocked library providing a scope to students to learn and experience well.
- Electronics and Communication Engineering: Electronics & Communication Department at Nanhi Pari Seemant Institute of Technology has consistently served as a genesis of engineers of excellent caliber in the field of Electronics and Communication Engineering for more than a decade now. It proudly savors the reputation of being one of the best departments in shaping the students for the field in which they are going to serve. As being one of the oldest Self-financing institutions in this region, students of this EC branch became entrepreneurs and corporate heads the vivid reason being the splendid knowledge that the students are imparted with all facilities.
- **Electrical Engineering:** The department of Electrical Engineering at NPSEI Pithoragarh offers a vibrant environment for undergraduate education and research in Electrical Engineering. Established in 2011, the vision of the department is to provide the leadership to enable India's excellence in the field of Electrical Engineering. The department is committed to advancement of the frontiers of knowledge in Electrical Engineering and to provide the students with stimulating and rewarding learning experience. The research interests of the faculty members encompass a wide gamut of sub-disciplines of Electrical Engineering. Collaboration with faculty members from other disciplines, both within and outside the institute, is encouraged. The research activity of the department includes fundamental research, sponsored and consultancy projects, and is carried out with active participation of the students, faculty, staff and research engineers. The Department has specialization in research areas such as: control system, power system, power quality, and power electronics. The department faculties have several patents, publications and sponsored industry projects to their credit. Over the years, the graduating students have gone on to occupy key positions in education, science, and industry and government administration in India and abroad. Over a span of six years, the department has been successful in attracting some of the best minds in the country, both in the student and teaching community. In the future, the department hopes to extend its research into newer areas like Power Electronics, quality, renewable, smart grid, smart metering, HVDC, High Voltage, Special Machines, Devices...new devices, modeling, lithography...MEMS, Nanotech, materials etc. Communication...analog, digital, high

speed, Signal Processing: speech, audio, image, video, Networking, cryptography, processor design, OS, database.

- Mechanical Engineering: The Department of Mechanical Engineering from the day of
 its inception, has been taking long strides in the field of science and Engineering. One of
 the oldest and active departments which anticipated the rapid developments in technology
 and software and provided the most sophisticated laboratory facilities & excellent
 infrastructure.
- Applied Sciences: The Department of Applied Science was formed with the primary objective of providing world class education in the field of Applied Science. One of the best departments in the state to offer a bachelor's degree in Applied Science. Right from its inception, the Department has been offering excellent infrastructural facilities with a variety of computing platforms to aspiring professional students to meet the burgeoning demands of the IT industry. The department endeavors to produce confident professionals tuned to real time working environment. The department offers excellent academic environment with a team of highly qualified faculty members to inspire the students to develop their technical skills and inculcate the spirit of team work in them.

This year is a remarkable year in the history of NPSEI, Pithoragarh. The 9th Academic Year 2017 – 18 was inaugurated on 2nd August, 2017 by Dr. B.K. Singh, Director NPSEI Pithoragarh. Seventh semester classes started on 26th June and commenced on 10th Nov, first, third & fifth semester classes started on 1st August and commenced on 24th Nov. The admission to Ist semester started during May, 2017 and a total of 77 students were admitted (CE – 28, CS – 29, EC- 07, EE- 04, ME-09). Orientation classes started from 15th July, 2017 and regular classes started on 1st August, 2017.

Training and Placements

- Fourth and third year students of Civil Engineering, Computer Science and Engineering, Electronics and communication engineering, Electrical engineering and Mechanical Engineering Department attended recruitment by Sun core microsystem. 35 students got selected for various profiles.
- Seven students of Computer Science 2018 Pass out got selected in C core.
- Uniinfo selected three students of Computer Science 2018 pass out.
- 2018 Pass out students attended the Talent pool. 21 students got selected.
- 45 days training in "learning advance Java", "learning advance php", "android development" and "dot net and database" is provided to final year student of computer science.

- Internship opportunities were informed to all students.
- A soft skill training was provided to final year students by the "TIMES Haldwani" for placements.

Results

The result of 2017-2018 Batch is given in table 2.

Semester	CE	CSE	ECE	EE	ME	Overall pass %
S1	100	100	100	100	100	100%

Table 2: Results of 2017-2018

Infrastructure and Facilities

Library:



The library provides access for students to vast databases, full-text journals, audio-visual programmes in addition to an extensive collection of books. The College has a fully computerized library with an area of 10 Square meter and has more than 21000 volumes of text books comprising 5000+ titles. The books are supplemented by CD's and microfilms. The branch wise details of the books are shown in table 3.

S. No.	Branch	Quantity
1.	Computer Science and engineering	2340
2.	Electronics and communication engineering	2779
3.	Electrical engineering	2525
4.	Mechanical engineering	4383
5.	Civil engineering	2143
6.	Physics	620
7.	Chemistry	547
8.	Mathematics	991
9.	Management	130
10.	General knowledge and aptitude	1124
	Total	17582

Table 3: Branch wise details of the books in library

Sections of the college Library:

- Stock Section
- Reference Section
- Circulation Section
- Periodical Section
- Maintenance Section
- New Arrivals Section
- Reprography Section
- Newspaper Section
- Back volume Section

Internet Facility:

College is having a fast Internet connection, provincially networked and connected through wi-fi also to the main server are available for students for their project work and preparing seminar presentations. It also provides access to e-books, study materials, previous question papers daily circulars, etc. Internet facilities in the fully-equipped internet lab, providing high speed connectivity to the student to surf the net together for immeasurable information.

The college has internet connectivity which has been extended to all the laboratories, libraries using extensive networking. The college also has CCTV cameras to monitor the activities in the laboratories other general area which facilitate college authorities to monitor the academic activities and have efficient administrative control. The college has an effective anti-ragging cell to have companionable relation among the students. Wi-fi facility in the Institution Campus is a milestone in the history of this institution as it puts the college on the road to paperless administration and functioning. With this addition the college will provide internet and intranet access to all students and staff for instructional purpose smoothly with colleges internationally.

Canteen Facility:

College has spacious canteen facility in the college premises and is run by college management. A variety of food and snack items are provided to the students and staff of the college at highly subsidized rates with highest quality. Our college canteen is blessed with family atmosphere, with a variety of delicacies, touched by a homemade flavor, cooked to perfection and served with a great courtesy. Refreshments are available at the college canteen at affordable rates. Adequate seating facilities are provided to accommodate students and staff even during peak time.

Medical Facility:

A dispensary with dental care unit has been added in the campus with the help of District Hospital, Pithoragarh. Three nursing homes in the vicinity have been empanelled whenever hospitalization becomes necessary. Round the clock transports facility is available for the sick students. All fundamental facilities are available at campus to ensure that the students have a safe and pleased stay while they are in the institute. The institute aspires to providing well equipped first aid support in the clinic, and also ambulance evacuation for students of the campus and inmates of campus boy's hostel. We have doctors to provide the medical support. Medical services beyond Clinic scope, are facilitated through a high tech medical ambulance which is all time present with emergency management facilities, on wheels.

Hostel Facilities:

Facilities in the hostels include:

- Reading Room
- Television Room

Girls's Hostel: The College provides well-furnished hostel accommodation to its students, separately for boys and girls. The hostels provide reasonable levels of comfort, hygienic food, recreation facilities and an environment conducive for pursuit of academic and all round development. All the rooms have been designed to provide adequate moving space and ample air and light.

Boys's Hostel: The College has a wide range of accommodation options and most students find that these options suit to their needs. Each hostel has its separate mess with well equipped kitchens and dining area providing hygienic, nutritious and wholesome meals. Hostels have gymnasium as well as indoor and outdoor sports facilities. The hostels also have a TV room for recreation. Hostels are also equipped with electric geysers for Hot water in winters. Laundry Service is also available in hostels.

Transportation facilities:

College operates buses for the convenience security and added comfort of students and staff coming in from and around the city. This transport facility is also used for various educational purposes like field trips, industrial visits and recruitments.

The routes and pickup points are clearly laid out, and you are requested to follow the timings set for the pickup.

Power Supply:

The college has a 24 hour power supply. A separate power house is deputized to provide power supply to the entire campus in the event of power failure.

Conferences/ Symposia/ Workshops/ Seminars

Conferences, Symposia, Workshops and Seminars on focus themes are important academic activities to stimulate discussions on different areas of importance. Many of these activities invite and receive participation from other organizations, which bring the additional benefit of increasing the Institute's visibility to the outside world. The following activities were organized during 2017-18:







- An International Conference on Big Data and Computational intelligence.
- A workshop on Android App Development from 03-07 June 2018.
- An International conference "NEWTONS-May 2018"
- Art and craft workshop in May-2018.
- A workshop on introduction to MATLAB in May-2018.
- A work on robotics organised in May-2018.
- Nirmaan'2k18 A Civil Engineering Technical Fest organised in April 2018.

Faculty and Staff



We are proud of our Faculty and staff, their dedication and Commitment. We have 48 Faculty Members on rolls. Out of 48 faculty member we have 11 faculties recruited under TEQIP III . We have 12 technical supporting staff. We have 02 Faculty with Ph.D and 05 Faculty members are pursuing Ph.D. All members are with PG qualification. The details of the faculty in respective branch in shown in table 4.

S. No	Branch	Number of Faculty
1.	Computer Science and engineering	09
2.	Electronics and communication engineering	07
3.	Electrical engineering	09
4.	Mechanical engineering	09
5.	Civil engineering	06
6.	Applied science and humanities	08
	Total	48

Table 4: Details of faculty in individual branch

Paper Publications and Presentation by Faculty Members

- Bhagawati Prasad Joshi, Abhay Kumar, Akhilesh Singh, Pradeep Kumar Bhatt and Bhupender Kumar Bharti, Intuitionistic fuzzy parameterized fuzzy soft set theory and its application. Accepted for publishing in Journal of Intelligent and Fuzzy Systems, IOS Press (Science Citation Index-Expanded -SciSearch® and SCOPUS)
- Bhagawati Prasad Joshi, Akhilesh Singh, Pradeep Kumar Bhatt and Kunwar Singh Vaisla, Interval Valued q-Rung Orthopair Fuzzy Sets and their Properties. Accepted for publishing in Journal of Intelligent and Fuzzy Systems, IOS Press (Science Citation Index-Expanded -SciSearch® and SCOPUS)
- Bhagawati Prasad Joshi, "Moderator intuitionistic fuzzy sets with applications in multi-criteria decision-making" Granular Computing. Vol. 3, 61–73 (2018) (Springer). DOI: 10.1007/s41066-017-0056-3
- Bhagawati Prasad Joshi, "An Error Analysis Decision Making Method for Priority in Intuitionistic Preference Relation" International Journal of Applied Evolutionary Computation (IJAEC). Vol. 8(4), 1-13 (October-December 2017). DOI: 10.4018/IJAEC.2017100101 (UGC Approved and ACM Digital Library).
- Hemant Kumar Joshi, "Identification of potability by using hydrogeochemicalfacies and quality indexing of kumaon hills of uttarakhand" presented at Graphic Era Hill University, Uttarakhand organised by Uttarakhand Science Education & Research Centre.
- K. C. Das, N. Tripathy, S. P. Ghosh, S. Mohanta, A. Nakamura and J. P. Kar, Investigation of microstructural and electrical properties of composition dependent cosputtered Hf1–xTaxO2 thin films, Material Research Express 4 (2017) 114007.
- N. Tripathy, K. C. Das, , S. P. Ghosh, D. Pradhan and J. P. Kar, Impact of post-deposition annealing on RF sputtered calcium copper titanate thin film for memory application, Material Research Express 5 (2018) 074001.
- K. C. Das, N. Tripathy, S. P. Ghosh, S. Mohanta, A. Nakamura and J. P. Kar, "4th International Conference on Nanoscience and Nanotechnology", Department of Physics & Nanotechnology, SRM Institute of Science and Technology, Kattankulanthur, Chennai - 603203 Tamil Nadu.
- Naveen Chandra and Ashu Sharma "An Account of Cognition Based Image Interpretation Models", An international conference on big data and computational intelligence, Feb-2018.
- Naveen Chandra and Ashu Sharma "An Account of Cognition Based Image Interpretation Models", Feb-2018.

- Srivastava A., Samanta S., Double π-bond isomerization/Friedel—Crafts reaction involving γ-amidocrotonates: Access to γ aryl/heteroaryl GABA scaffolds and 9 dihydropyrido[1,2-a]indoles, Eur. J. Org. Chem., 4, 647-653 (DOI: 10.1002/ejoc.201501388).
- Anupa Chaudhary "Evaluation Study of Soft Skill Training Programme in Engineering Students in Multi-disciplinary Innovations for Sustainability and Growth", national level conference organized by Shriram Institute of Management and Technology on 11th-March-2018.
- Savita Patni "On Globally Para Framed metric manifold" International Journal of Engineering Science Invention Research & Development on 8 February-2017,
- Savita Patni "On Para Almost F-3 Structure Manifold" International Journal of Research and Scientific Innovation on February- 2017.

Seminar and Training Programme Attended by Faculty Members and Staff

- Professional Development Training under TEQIP-III held during December 14-18, 2017 at IIM Raipur.
- STEM teacher Training Workshop on Research Based Pedagogical Tools held from December 10, 2017 to December 13, 2017 at IIT Gandhinagar.
- Management enhancement programme for teaching, staff Port Blair Andaman and Nicobar 28th February 2018 to 4th march 2018.
- Faculty induction workshop under TEQIP III, IIT Indore, 23rd January 2018 to 27th January 2018.
- Short term course on NBA Accreditation 8th-9th April 2018 organized by NPSEI Pithoragarh
- Three day STC on Rural industries Establishment, Sustainability and Challenges organised by TEQIP/CEP, IIT Delhi from 27-June-2018 to 29-June-2018.
- Two day workshop on Start up in Punjab University, Chandigarh organised by ACITE and NPIU 29-30 December.
- One week Faculty Induction Program TEQIP-III in IIT Kharagpur from 03/07/18 to 07/07/18.
- One week Professional Development Training Programme under TEQIP-III in IIM Indore.

Student Activities



- Electronics Youth Engineering Society (EYES) a club of electronics and communication engineering department of NPSEI, Pithoragarh.
- Civil Engineering Students Association (CESA) is a non-registered, non-profit organization within the department of Civil Engineering, N.P.S.E.I Pithoragarh.
- "SAMYAK" the annual magazine is published by the N.P.S.E.I Pithoragarh.
- The seven day camp was organised under NSS by the institute in the month of March-2018 in Aath Gaun Siling. The objective of the camp was to make people aware about the importance of the clean city.

Start-Up Activities

- "Sanrachna" the start-up cell in located at NPSEI, TEQIP office, Pithoragarh.
- The objective of "Sanrachna" the are listed below:
 - To Develop a Critical Mass of Motivated Students & Faculties with Entrepreneurial Orientation & Skill.
 - To Build Infrastructure Support for Innovation & Early Stage Enterprise development and Enabling Access to Resource & Facilities at Institute.
 - To Enhance In-House Competency Development to Serve Potential and Early Stage Entrepreneurs and Student Innovators at the Institute.
 - To Strengthen the Interdepartmental and Inter-Institutional linkage, Incubators and Other Ecosystem Enablers at Different Levels.
- The vision of the start-up cell is to create a dynamic and vibrant environment in technical institute to build entrepreneurs for socio-economic development of nation.
- The mission of the start-up cell is to motivate students to become entrepreneur through interaction with leading entrepreneurs and forming various activity clubs. Members of start-up cell mentor the students to convert their ideas into solutions to fulfil the need of society, industry and nation. The start-up cell will impart entrepreneurial skills amongst faculties and students through various workshops and training.
- The upcoming events to be conducted by "Sanrachna" are listed below:
 - Conduct a GET test of 2nd and 1st Year B.tech students.
 - Organize a start-up camp.
 - One day workshop on "TOURISM INDUSTRY" for faculties and students.
 - One week faculty development programme.
 - An industrial visit for students and faculties.















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