

P.E.S. College of Engineering, Mandya









IQAC ANNUAL REPORT 2020-2021













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1. About PESCE

P.E.S. College of Engineering, Mandya is one of the pioneer Engineering Colleges in India started in the year 1962 by People's Education Society, Mandya (currently known as People's Education Trust) under the leadership of late Sri K.V. Shankaragowda with the help of philanthropic farmers of Mandya District. Sri K.V. Shankaragowda was former Education Minister of Government of Karnataka, a person with a missionary zeal and had along cherished ambition to promote and disseminate knowledge. The sole objective of the college was to promote Technical Education among the students of Rural Areas. The college is permanently affiliated to Visveswaraya Technological University (VTU), Belagavi, (Previously affiliated to the University of Mysore) and has obtained Autonomous status in the year 2008-09 by the UGC. The college is functioning under the Grant-in-aid code, Government of Karnataka.

The college managed by Peoples Education Trust, Mandya and steered by the Chairman Shri. K.S. Vijayananda. Institute is recognized by All India Council for Technical Education (AICTE), New Delhi and Thrice Accredited by National Board of Accreditation (NBA), Accredited by National Assessment and Accreditation Council (NAAC) and ranked147th by MHRD, National Institutional Ranking Framework-2020 (NIRF-2020) and 2nd place in category of Govt. and Aided Engineering Colleges of Atal ranking (ARIIA) 2020.

The college has Excellent academic, sports complex and other amenities spread across 62 acres of the beautiful green campus. The college is running 8 under graduate BE programs and 6 Postgraduate programs. It consists of 5 M.Tech programs, MBA and MCA which are affiliated to Visvesvarya Technological University. The total intake of the college is 820 students for UG course and 228 students for PG course. Besides, more than hundred research scholars pursuing MSc (Engg) & Ph. D research programs.

After obtaining Autonomous status, the Management has redefined its vision and mission "it is committed to develop student potential through high quality teaching-learning processes and state of the art infrastructure and is determined to improve the academic standards and campus environment to impart Quality Technical education. Asper the Washington Accord, we have revised our curriculum to adopt Outcome Based Education (OBE). Further, Choice Based Credit System along with Out Come Based Education is adopted since 2015-16. Institutional Strategic Development Plan approved by Board of Governors to make students



of P.E.S.C.E. Professionally Excellent, Socially Committed Engineers in Synonym with P.E.S.C.E.

To cater to the needs of the students, necessary laboratories added to the infrastructure. The college campus computer network has been upgraded and entire campus is provided with Wi-Fi facility to access internet. The institution has full pledged infrastructure with well qualified and experienced faculty. In order to update the knowledge of the faculty and technical staff with the latest technology, the faculty members and teaching staff deputed at regular intervals for Faculty Development Programs (FDP) and technical training. The FDP programs conducted regularly in-house by inviting experts from industries and reputed institutions.

beneficiary The college of **TEQIP** II grant (Rs.10.00crores) under component1.1during2010-2017. The broad objectives of the Programme (TEQIP) is to create an environment in which engineering institutions selected under the Programme can achieve their own set targets for excellence and sustain the same with autonomy and accountability. Support development plans including synergistic networking and services to community and economy for achieving higher standards, to improve efficiency and effectiveness of the technical education management system. The effort would provide a flexible platform to perform to acquire excellence in specialized areas and emerges world-class institutions. The TEQIP funds utilized effectively and all the Departments Programmes have procured latest equipment to their laboratory to train students with the latest equipment as per industry standard.

Further, for the efficient and effective implementation of TEQIP-II grant under component 1.1during2010-2017,the College is chosen for TEQIP-III grant (Rs.7.00crores) under component 1.3 for the period 2017-2021.

During 2008, P.E.S. College of Engineering became one among the 14 Autonomous colleges in Karnataka. This Autonomous status provided the flexibility to set one's own syllabus, start programmes specific to demand, conduct exams, etc.. Current intake of students for UG &PG Programme is about 1048, spread across an array of disciplines. P.E.S.C.E. offers bachelor of engineering (BE) in Automobile, Civil, Mechanical, Electrical and Electronics, Electronics and Communication, Industrial and Production, Computer Sciences and Information Sciences.



P.E.S.C.E. offers 5master of technology (M.Tech) Programmes, A Master of computer application and Master of Business Administration program. About 150 scholars are currently pursuing Ph.D under the able guidance of about 55Ph.DGuides/Supervisors. It is note worthy that P.E.S.C.E. Faculty and students have 15 patents so far. Additionally, P.E.S.C.E. is one among the 31 Engineering colleges in the country selected for World Bank-MHRD's prestigious TEQIP grants.

P.E.S.C.E. has setup Centre's of Excellence centers in Collaboration with academic Institutes and companies. These organizations also provide our students opportunities, thus making them industry ready at the time of graduation. Our Institute also has a Bio-fuel centre funded by Government of Karnataka. In addition to this, Institute has collaboration with various national and international academic institutions/Universities.

Training & Placement centre of our institute plays a major role in transforming the student fraternity and graduates for their overall l growth, skill and campus placements

P.E.S.C.E. faculty is highly qualified with about 35% of the molding Doctoral Degrees.

P.E.S.C.E. has under gone significant metamorphosis in terms of infrastructure, with a state of the art library, golden jubilee block for special lecturers, boys & girls hostel, refreshment area and parking area. The independent infrastructure a buildings for all the UG & PG programmes, library, academic lecture halls, smart classrooms, Auditorium for different purposes every well developed. Further, well established outdoor as well as indoor sports complex facilities cater for the requirements of not only for students & faculty but also for society.

2. PESCE – Internal Quality Assurance Cell (IQAC)

P.E.S. College of Engineering (PESCE), Mandya was accredited by NAAC during August 2018 with B++ having CGPA 2.99 for cycle - 1. As a post-accreditation quality sustenance measure, Internal Quality Assurance Cell (IQAC) was established in 2018 at PESCE. The IQAC being an integral part of the college works towards achieving excellence in all aspects of education at higher level by considering the recommendations of NAAC peer committee. PESCE organises many programmes for faculty, administrative staff and members of quality circle. It has a mechanism for faculty assessment through self appraisal and student feedback for quality enhancement and sustenance in terms of improvement in teaching, learning and research experience in the college. It monitors the maintenance of reports and documents as an evidence for the multifarious activities of the college. A continuous follow up has been made on infrastructural resources and other better facilities for teaching, learning and research experiences. With great responsibility to ensure quality, IQAC happens to be the one of the most important components of the college.

IQAC Strategies: IQAC evolve mechanisms and procedures for

- Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks.
- Optimization and integration of modern methods of teaching and learning,
- Relevant and quality academic / research programmes,
- Ensuring the adequacy, maintenance and proper allocation of support structure and services,
- Equitable access to and affordability of academic programmes for various sections of society,
- The credibility of assessment and evaluation process,
- Sharing of research findings and networking with other institutions in India and abroad.



P.E.S. College of Engineering, Mandya







IQAC Functions: Some of the functions expected of the IQAC are

- Development and application of quality benchmarks/Parameters for various academic and administrative activities of the institution;
- Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process;
- Collection and analysis of feedback from all stakeholders on quality-related institutional processes;
- Dissemination of information on various quality parameters to all stakeholders;
- Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles;
- Documentation of the various programmes/activities leading to quality improvement;
- Acting as a nodal agency of the Institution for coordinating quality-related activities,
 including adoption and dissemination of best practices;
- Development and maintenance of institutional database through MIS for the purpose of maintaining /enhancing the institutional quality;
- Periodical conduct of Academic and Administrative Audit and its follow-up
- Preparation and submission of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC.

IAQC Benefits: IQAC will facilitate / contribute to

- Ensure clarity and focus in institutional functioning towards quality enhancement;
- Ensure internalization of the quality culture;
- Ensure enhancement and coordination among various activities of the institution and institutionalize all good practices;
- Provide a sound basis for decision-making to improve institutional functioning;
- Act as a dynamic system for quality changes in HEIs;
- Build an organised methodology of documentation and internal communication.



IQAC Monitoring Mechanism

The institutions need to submit yearly the Annual Quality Assurance Report (AQAR) to NAAC. A functional Internal Quality Assurance Cell (IQAC) and timely submission of Annual Quality Assurance Reports (AQARs) are the Minimum Institutional Requirements (MIR) to volunteer for second, third or subsequent cycle's accreditation. During the institutional visit the NAAC peer team will interact with the IQACs to know the progress, functioning as well quality sustenance initiatives undertaken by them.

The Annual Quality Assurance Reports (AQAR) may be the part of the Annual Report. The AQAR shall be approved by the statutory bodies of the HEIs (such as Syndicate, Governing Council/Board) for the follow up action for necessary quality enhancement measures. The Higher Education Institutions (HEI) shall submit the AQAR regularly to NAAC. The IQACs may create its exclusive window on its institutional website and regularly upload/ report on its activities, as well as for hosting the AQAR.

The coordinator of the IQAC and the secretary will have a major role in implementing these functions. The IQAC may derive major support from the already existing units and mechanisms that contribute to the functions listed above. The operational features and functions discussed so far are broad-based to facilitate institutions towards academic excellence and institutions may adapt them to their specific needs. Hence, secretarial assistance may be facilitated by the administration to IQAC of the institution.

Composition of the IQAC

IQAC may be constituted in every institution under the Chairmanship of the Head of the institution with heads of important academic and administrative units and a few teachers and a few distinguished educationists and representatives of local management and stakeholders.

The composition of the IQAC may be as follows:

- 1. Chairperson: Head of the Institution
- 2. A few senior administrative officers
- 3. Three to eight teachers
- 4. One member from the Management
- 5. One/two nominees from local society, Students and Alumni
- 6. One/two nominees from Employers / Industrialists / stakeholders
- 7. One of the senior teachers as the coordinator / Director of the IQAC



3. The composition of IQAC Members

To achieve Excellency in higher education, P. E. S. College of Engineering constitute an Internal Quality Assurance Cell. The composition of IQAC consists of the following

S. No.	Comp	osition of IQAC	Members	Designation
1	Chairperson		Dr. H V Ravindra	Principal, PESCE, Mandya
2	Member from Management		Sri. S L Shivaprasad	Trustee & G. C. Member
3	External	Academic/Research	Dr. K V A Baliji	CEO, KSIT, Bengaluru
	Experts	Alumni/Industry	Dr. M T Aravind	CEO, AMPLEBIT Tech. Bengaluru
4	Senior Administrative Officers		Dr. Nagarathna	Professor & Dean (Academic), CSE
			Dr. N L Muralikrishna	Professor & COE
			Dr. Minavathi	Professor & Dean (Research), CSE
			Sri. Sheshappa	Assistant Administrative Officer
5	5 Teachers from different levels		Dr. K A RadhaKrishna Rao	Professor & Head E&CE
			Dr. R M Mahalinge Gowda	Professor & Head, CVE
			Dr. R Girisha	Professor & TPO, CSE
			Dr. M N Veena	Professor, MCA
			Dr. Umesh D R	Associate Professor, CSE
			Dr. Kirankumar A C	Associate Professor, MBA
			Sri. T M Devegowda	Assistant Professor, M E
			Dr. Kodandarama	Assistant Librarian, PESCE
6	Student R	Representative	Mr. P Samrat	7 th Semester, ME
7	IQAC Co	ordinator	Dr. Shivalinge Gowda	Professor & HoD of Physics



4. Curricular Aspects.

The college is running 8 Undergraduate BE Programs and 6 Postgraduate Programs. It consists of 4 M.Tech programs, MBA and MCA which are affiliated to VTU, Belagavi. The total intake of the college is 620 students for UG and 246 students for PG courses, besides more than hundred research scholars pursuing M.Sc (Engg.) and Ph.D research programs. After obtaining the Autonomous status the Management has redefined its vision and mission as "it is committed to develop student potential through high quality teaching – learning processes and state of the art infrastructure" and is determined to improve the academic standards and campus environment to impart Quality Technical Education. As per the Washington Accord, we have revised our curriculum to adopt the Outcome Based Education (OBE). Further, Choice Based Credit System (CBCS) along with OBE is adopted since 2015-16 academic year. Institutional Strategic Development Plan has been approved by Board of Governors for the year 2014 to 2020 to make students of PESCE as Professionally Excellent, Socially Committed Engineers in synonym to PESCE. The TEQIP funds have been utilized effectively for the development of all the Departments by procuring the latest equipments to their laboratory to train the students as per industry standards. To cater, the needs of the students, pertaining to Mechanical, Automobile and Industrial Production Engineering departments, a new Computer Aided Design (CAD) lab has been added to the infrastructure.

The college campus computer network has been upgraded and entire campus is provided with Wi-Fi to access internet. The faculty and technical staffs are regularly deputed for the Faculty Development Programs (FDP) and Technical Trainings to update their knowledge with the latest technology. The FDP programs are regularly conducted in-house by inviting experts from industries and other reputed institutions. Teaching Assistant ships are provided to M.Tech students.



5. Teaching Learning & Evaluation

Continuous evaluation of teaching learning processes is carried out through internal and external audits. Typical teaching practices comprise theory, practical, tutorial and self-study components. The process involves customary blackboard teaching, usage of visual presentations, web-enabled learning, case studies, role modeling as well as project/game/activity based learning. The evaluation consists of Continuous Internal Evaluation (CIE with a 50% weightage of the total marks) and Semester-End Examination (SEE with a 50% weightage of the total marks). While CIE consists of Tests, Quizzes, Assignments, Case Studies and Mini-Projects. SEE is conducted on the entire syllabus as prescribed and the question papers are set by both the Internal and External examiners. The evaluation of SEE is done by the internal examiners and moderated by external examiners. The final grade will be awarded based on the combined score obtained in CIE and SEE put together. The activities of the institute can broadly be put as follows.

- > To develop systems that will enable standardization of academic activity that is essential for sustained academic growth.
- ➤ To conduct academic audits to ensure that the departments comply with the established academic standards.
- > Organize and impart training to the faculty to develop their capabilities for quality academic delivery in line with NBA requirements.
- ➤ Provide academic orientation and training to students for enhancing their employability.

Standardization Activities

Following are the standardization activities that have been institutionalized through formats:

- Preparation of material for handling theory classes.
- Preparation of laboratory manuals and work books.
- The role of class advisors and ward counsellors.
- Student welfare officer

6. Research Innovations & Extension

The Institute currently offers M.Sc. (Engineering by Research), M.Sc. (Technology by Research) and Ph.D under PET research foundation with degrees affiliated to Visvesvaraya Technological University, University of Mysore and Kuvempu University. All the departments of the institute are recognized as research centres under VTU, whereas, E & E Dept. has additional recognition of Kuvempu University and departments of E&C, CS&E, Mathematics, Physics and Chemistry have additional recognition as research centres under University of Mysore for the research programs. There are more than 138 students from industry and academia is enrolled with PET research foundation for Ph.D. programs. The institute has produced 64 Ph.Ds and 11 M.Sc. Egg. within a span of 8 years. The Research scholars and faculty members are involved in many research projects funded by UGC, DST, DRDO, AR&DB, VGST and AICTE.

Objectives

- Promote research within the Institute.
- Provide information of funding opportunities to support faculty research, and oversees systems and processes related to externally fund sponsored /consultancy project.
- Facilitates conferences and workshops held at the Institute.
- Promote Research and developmental activities

`Recognition

- All departments are recognized as Research centre by VTU.
- University of Mysore has recognized PET Research centre for doing research in the field of Electronics, Computer Science, Mathematics, Science and Chemistry.
- Kuvempu University has recognized a few of the guides to carry out research in Electrical Engineering.

Ph.D Awardees (Branch Wise)

Branch	Number of awardees
Civil Engineering	12
Mechanical/Automobile/Industrial & Production Engg.	12
Electrical/Electronics Engineering	24
CS/IS Engineering	11
Engineering Mathematics	04
Engineering Chemistry	01

Research Programs

M.Sc. (Engineering) by Research and Ph.D. under VT University, Belagavi

- ➤ Civil Engineering
- > Mechanical Engineering
- > Electrical and Electronics Engineering
- > Electronics and Communication Engineering
- > Automobile Engineering.
- ➤ Computer Science & Engineering

PET Research Foundation

Program	Affiliated to
Electronics & Communication Engg.	
Computer Science & Engg.	University of Mysore Mysore
Physics , Chemistry and Maths	
Electrical & Electronics Engg.	Kuvempu University Shimoga

Research Projects

Artificial Intelligence and Machine Learning Lab

Dr. Vinay S, Professor has received Rs 7, 45,098-00 funding under AICTE MODROBS for setting up Artificial Intelligence and Machine Learning Lab in the Department of Information Science and Engineering for the year 2019-20 payable during the financial year 2020-21.

Summary of the proposal

Businesses all across the globe are adopting Artificial Intelligence (AI), Machine Learning (ML) and related technologies to increase productivity, derive better insights, and revolutionize the way businesses are conducted. Recognizing AI's potential to transform economies and the need for India to strategies its approach central government has mandated NITI Aayog to establish the National Program on AI, with a view to guiding the research and development in new and emerging technologies. In this context it is proposed to set up Artificial Intelligence and Machine Learning Lab in the department of Information Science and Engineering. The proposed lab will be useful for teaching the AI, ML courses – both theory and lab, train the students, take up AI, ML related projects and enhance R&D in new and emerging technologies in the area of AI, ML.

Objectives

The objectives of the proposed lab are as follows:

- 1) Apply algorithms in the field of AI and ML as part of lab for UG and PG students
- 2) Design and build projects in the areas of AI and ML by UG and PG students
- 3) Evaluate efficiencies of various ML algorithms on datasets from different domains as part of research work
- 4) Use the infrastructure as a skill development centre for conducting workshops for students, faculty, industry people in the areas of AI and ML

Specification of of System Purchased

AMD Thread ripper Pro 3955WX 3.9GHz/16C/64M/3200/280W, 27-inch 16:9 QHD Monitor with USB Type-C, Supports up to 8 DIMM Sockets, 8 Channels, Max System Memory Support of 512 GB. To be factory Configured with 32GB DDR4 ECC RDIMM PC4-3200 x 4 Nos, Total Bays/Size: 4 x 3.5", PCIe: 2 x M.2 PCIe Connectors Onboard, Gen 4, Additional M.2





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NVMe Drives Supported by Single Adapters, eSATA: 1 x eSATA Connector, Gen 3: To be factory Configured with 2TB Hard Drive, 7200RPM, 3.5" X 2 Nos, 1 x 512GB Solid State Drive, M.2 2280, PCIe NVMe Gen3x4, TLC, Opal 2.0, NVIDIA Quadro RTX 5000 16GB (4xDP+VirtualLink)

All India Council for Technical Education (AICTE)

Modernization and Removal of Obsolescence (MODROBS)

Name of the Lab Funded: Centre of Excellence

Department: Mechanical Engineering

Principal Investigator: Dr. H. V. Ravindra

CO Investigators: Dr. Rudresh Addamani & Dr. Gurupavan H R Sanction order No.: F.No.9-40/IDC/MODROB/Policy-1/2019-20

Sanctioned Date: 20/07/2020

Total Grant-in-aid Sanctioned: Rs. 15, 96,078/-

List of Equipment's approved:

➤ Stir Casting Equipment

➤ Pulsed Gas Metal Arc Welding Kit

> CNC Wire Cut EDM Machine

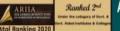
Title

Performance Monitoring of Composite Materials while Machining and Welding using Machine Vision System.

Abstract

Machining is manufacturing process that involves removing materials using cutting tools for getting rid of the unwanted materials from work piece and converting it into the desired shape. Wire cut- EDM provides an effective solution for machining hard materials with intricate shapes. Drilling is another major machining operation required in the assembly of various automotive and aircraft components. Welding is a fabrication or sculptural process that joins materials. Weld strength is the one of important performance characteristic in welding. The challenge of modern machining industries is mainly focused on the achievement of high quality, high production rate,





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Economy of machining in terms of cost saving and increase the performance of the product with reduced environmental impact. This can be done by using machine vision system. This forms the motivation for the present study.

Objectives

- Synthesis of high-quality composite material with different weight percentage of reinforcement by casting technique.
- Process parameters of WEDM & Drilling in machining of MMC material and Welding are optimized using taguchi's standard orthogonal array.
- Monitoring the quality characteristics of machined aluminum based MMC components using machine vision system.
- Monitoring the status of the welding performance using machine vision system at the time of welding and solidification.
- Estimation of machine vision parameters of machined component in WEDM, Weld in welding and drilled hole in drilling using Artificial Neural network.
- Comparison of theoretical values with experimental results.

Outcome

The experimental investigation on structural characteristics of composite materials would yield data, which would be useful for design of engineering components made out of these composite materials. Machine vision (MV) is the technology and methods used to provide imaging-based automatic inspection which is fast and reliable unlike conventional measuring system. In the present work Machine vision system will be used to monitor the performance of composite material while machining and welding. The methodology described here is expected to be highly beneficial to manufacturing industries, and also other areas such as

Aerospace, automobile and tool making industries.



7. Infrastructure & Learning Resources.

The institution has very well established policy to maintain physical, academic and support facilities. The college has designated officers for overall development of campus facilities and its maintenance. Under the guidance of Management and Principal, the estate officer takes care of entire campus. The principal look after the Academics, laboratories and classrooms of individual department/ programmes along with HoDs. With regard to Support facilities System administrators for computers internet wifi maintenance, Librarian and his staffs for library maintenance, gardeners for campus greenery maintenance, Physical education director, Sports complex director and secretary for institution sports activities and sports complex maintenance exists. Maintenance of Infrastructure:

- Building Division: This committee is established under civil engineering department through which most of the new buildings with modern amenities are constructed and refurbishment/maintenance of buildings of the institute infrastructure are taken care. Laboratory and Workshops: All departments have their one laboratory which re equipped with sufficient tools and devices. All the tools and devices are well maintained by the instructors, lab technicians and mechanics with the help of the helpers.
- **Library**: A separate library building is established with modern amenities. The library committee will take care of maintenance and need of books, journals, e journals, magazines, news papers etc. In addition to this, each department has their own library.
- **Teaching learning process**: Classrooms, Seminar halls, Auditoriums are utilized for regular teaching-learning and training process. Further, the facilities regularly monitored under the supervision of the estate officer.
- **Training and Placement Centre**: The placement and training officer provides the required amenities to carry out the training placement activities smoothly.
- Exam section: Controller of Examination (CoE) takes care of the Autonomous exam section, where the database of overall exam section is managed by the co-ordinator and database administrator.
- Sports and Cultural: The sports complex has an exclusive committee, which takes care of overall sports complex amenities and activities, and it also take care for maintenance of sports amenities at regular intervals. The physical education director takes care about overall sports activities. The individual departments have got their own sports and cultural committee.



- **Computers and networking**: The institute has a system administrator and assistant system administrator to look after hardware and software of the computers. They also take care of networking, wifi, ICT facilities (classrooms, seminar halls, auditorium, etc) in the campus.
- Electricity: The electrical and electronics department takes care of overall electrical works and generators in the entire campus. The college has its own power generator as backup power supply for the departments, exam section and hostels, Solar power generation is also established. The garden department of the institute maintain the gardens to keep the campus green and maintain the entire campus clean and tidy. Initiative for Green Measures. Establishment and promotion of Bio fuel Centre, Campus Bore Wells are recharged, Campus solar Grid of 250 KW to meet campus power supply requirements. Initiated Solid waste management and rain harvesting.



8. Student Support & Progression

Students representation on Administrative bodies-All disciplines of Engineering of all semesters have students class representatives for each division who generally will put across all the issues connected to the teaching mythologies, processes and express their difficulty if at all in any subject in the class representative meeting with the Head of the Institute. New thought process which could be inculcated are also suggested by students but the final call on this issue is taken by the subject teacher, course coordinator and the board of studies. Students also give suggestion on state of art equipments which could be introduced in laboratories etc. Feedback is taken from the students so as to improve the overall academic processes and setup. Student's representations on Academic bodies-Students are also Members of Board of studies and they are actively involved while framing the curriculum. They take active part in Departmental level discussions and meetings concerning curriculum and give suggestions on many subjects. Many innovative suggestions are shaped and subjects which are of relevance in the industry are also included due to the involvement of students. These are further taken up for discussion in the final board of studies before freezing the curriculum.

Student's representation on IQAC - A Student member is involved in IQAC Board. In General, The students are included in various bodies with additional responsibilities at department and institution level as mentioned below.

- ✓ Participation in academic / curriculum committees Review through course end survey
- ✓ Department associations Students administrative body for the conduction of curricular/ co curricular and cultural activities at the department level
- ✓ SAE PESCE Student Section (Collegiate club) Students administrative body for the conduction of technical activities at the department/institute level
- ✓ Gnana Cauvery Students administrative body for the conduction of curricular/ co curricular and cultural activities at the institute level
- ✓ Technical Association students conduct workshops, seminar and guest lectures.
- ✓ Placement Committee Students with the assistance of placement officer conduct the placement activities every year during the campus placement.
- ✓ Sports Cultural Committee Students form a committee under the sports committee through which they conduct annual sports meet and also participate in various regional, national and international competition.



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- ✓ Anti Ragging committee The students create awareness about the anti-ragging polices of the institution to the new comers. They keep monitoring for any untoward incidents which may lead to ragging in the campus
- ✓ IEEE Student Branch Conduct regular workshops, conferences, seminars and guest lectures.
- ✓ Hostel Committee The keep track of the hygiene aspects of the hostel. They monitor the food which would be served in the hostel and reduction of wastage. They take care of recycling of wastage food every day. The role of student representatives in improving the activities of various clubs in curricular and extracurricular aspects of the institution in the right direction. They play vital role in-Feedback, Suggestion to Associate committee. Also they Disseminate the information from the college administration to all students

9 Governance Leadership & Management.

The Vision, Mission, Quality policy and Core values of the institution are very much essential to become a Technical Institution of highest Standards in tune with the objectives of technically sounded higher education in India.

Vision "PESCE is a leading institution imparting quality engineering and management education developing creative and socially responsible professionals."

Mission

- Provide state of the art infrastructure, motivate the faculty to be proficient in their field of specialization and adopt best teaching-learning practices.
- Impart engineering and managerial skills through competent and committed faculty using outcome based educational curriculum.
- Inculcate professional ethics, leadership qualities and entrepreneurial skills to meet the societal needs.
- Promote research, product development and industry-institution interaction.

The phrase, "Professionally Excellent, Socially Committed Engineers" is worth using as a punch line to designate the team of PESCE including the students, who contribute for the institutional development. The core values of PESCE are professionalism, Efficiency, Synergy, Commitment and Ethics. Governance - The institution has Board of Governors [BOG], to monitor the activities of overall development of the institution. The BoG has a Chairman, members, AICTE Nominee, GoK Nominee, VTU Nominee, UGC Nominee, Staff representative and Principal of the institute as the Member Secretary. Departments play vital role in the development of the institution. Each department formulated their vision, mission and goals. The implementation plan for the departments reflected all details of resources needed, leader responsible with Head of the Departments.



The above statements of vision, mission and quality policy and core values were deliberated, reframed and approved by BoG. Faculty participation:

Faculty are participated in various decision making bodies of the Institution, such as

- Governing Body IQAC Committee Team Women's Empowerment Committee
- Anti Ragging Committee Library Committee Stock verification Committee Industry Institute Interaction Committee ISTE faculty/Student Chapter Committee Student Welfare Committee Teaching staff Association HBCS staff Committee Planners for Institutional Academic Activity Finance Committee Purchase Committee Building Works and Campus Maintenance Committee Transport Committee Institute Web Site Design and maintenance Research and Development Committee Training Placement Centre Sports and Extra Curricular Activities Committee Academic Council Board of Studies Departmental Under Graduate Committee (DUGC) Departmental Academic Appeals Board (DAAB) Alumni Committee SC /ST Cell Hostel Committee etc.,

Student's Choice: Through Choice Based Credit System, Students are given freedom to choose the elective as well as open elective courses offered. Students can have freedom to transfer credits earned through online courses like NPTEL, MOOC, Swayam etc., Further, they have been provided to choose their career as Entrepreneur / Higher studies / placement /GATE etc., preparing for competitive examinations. Students have been given enough representation in the highest decision making bodies like Academic council, Internal Quality Assurance Cell and Board of Studies. Students are also empowered to play an active role in co-curricular and extracurricular activities, IEEE, ISTE, Red Cross, NSS social service group etc.



10 . Institutional Values & Best Practices.

Curriculum Design and Development: As per AICTE and NBA guidelines and Washington Accord, we have implemented choice based credit system (CBCS) with Outcome Based Education (OBE) in correlation with VTU. To cater the academic needs of students with latest technologies, the syllabus has been revised at regular intervals on par with industry. The faculty and students are encouraged to register for MOOCs Courses like NPTEL, Swayam, etc., • Examination System: The examination system has been modified to make it more transparent both in Continuous Internal Evaluation as well as Semester End Examination. We are

Providing viewing of answer scripts in both CIE and SEE before the announcement of results of UG and PG programmes. In case of any discrepancies found by the students are addressed at DUGC and DPGC meetings held in the respective departments and same has been sent to the CoE office for approval. Finally the results will be announced within a week after the final examination of the respective programme.

- Training and Placement activities: The institute has an independent training and placement cell, which exclusively train our students to acquire Technical/soft skills through different mandatory credit courses from I-Sem to VI-Sem BE and also placement activities. Rigorous trainings are conducted by outsourced resource persons so as enable the students to develop various skills to get placed in reputed companies.
- Training programs for faculty/Staff/Students: To acquire knowledge about current trends in Science and technology, the Institute conduct various Seminars/ FDPs/ SDPs/ Conferences/ Workshops etc., regularly for students, faculty and staff.

To gain the knowledge about recent developments in industry, Industry-Institute Interaction Programs are conducted in the campus and also Projects are done by the students from different Industries. Faculty and students are also carried out their research work in collaboration with Industries and Institutions with incentives.

Annual Academic Audit: An Annual Academic Audit (AAA) committee has been constituted by management and Principal with Subject experts.

Every year in the month of August / September AAA conduct Interaction with Faculty on the basis of Self-Appraisal Report submitted by them. Experts discussed about the grievances and gave the suggestions for the improvement of Academic activities of the faculty.



11 . Achievements of PESCE through IQAC.

Accomplishments – National / International

- Accredited by NBA under TIER I, for the following Six UG programs in the year 2017-18, and accredited till June 2023
- ➤ Electrical & Electronics Engineering 6 Years
- \triangleright Automobile Engineering (3 + 3) Years
- \triangleright Civil Engineering (3 + 3) Years
- \triangleright Electronics & Commun. Engg. (3 + 3) Years
- ▶ Information Science & Engg. -(3+3) Years
- \triangleright Mechanical Engineering (3 + 3) Years
- ✓ I&PE and CS&E dept.s applied for NBA accreditation during academic year 2019-20
- Accredited by National Assessment and Accreditation Council (NAAC) in the year 2018-19, for a period of 5 years
- Ranked 161 and 147 by National Institute Ranking Framework (NIRF) 2019 and 2020, MHRD, Govt. of India respectively.
- Ranked 2 By ARIIA Atal Ranking of Institutions on Innovation Achievements –
 2020 (under Govt. & Aided Institutions Category)
- Beneficiary of TEQIP II & III Grants by World Bank, through MHRD –NPIU, Govt. of India

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- Autonomy Extension by UGC 2023-24
- Permanent <u>Affiliation</u> by VTU till 2024-25
- <u>MoU</u> with Binghamton University, New York, USA

IQAC Summary Report



12. Webinars conducted by IIC through IQAC

List of activities conducted 2020-21

Sl No	Description	Date of conduction
1	PROBLEM SOLVING AND IDEATION by Dr.	04/12/2020
	Sudeendra Kaushik, Chief Innovator & Co-founder,	
	PRASU, Bengaluru.	
2	Webinar on "Start Up Entrepreneurship - The Reel	22/12/2020
	Life v/s Real Life Perspectives" by Debajyoti	
	Banerjee, CEO at Seven Boats.	
3	ORIENTATION SESSION ON NATIONAL	28/01/2021
	INNOVATION AND STARTUP POLICY (NISP)	
	by Mr. Pavan Mujumdar, Mentorific Consulting,	
	Bengaluru	
4	ONE WEEK FDP ON "ENTREPRENEURSHIP	16/03/2021 to 22/03/2021
	FOR FACULTY MENTORS" by Mr. Pavan	
	Mujumdar, Mentorific Consulting, Bengaluru, Dr.	
	Savita Lakkol, Associate Professor, JSS CMS,	
	Mysuru, Mrs. Sweta Pavan Mujumdar, Mentorific	
	Consulting, Bengaluru.	
5	SESSION ON WHY IP IS IMPORTANT IN	07/12/2021
	ACADEMIA by Mr. Ullas. P	
6	ORIENTATION SESSION FOR ALL STUDENTS	July – August 2021
	& FACULTIES OF INSTITUTE BY INNOVATION	
	AMBASSADOR(S)	
7	WORKSHOP ON PROTOTYPE/PROCESS	08/02/2021
	DESIGN AND DEVELOPMENT –	
	PROTOTYPING by Mr. Chethan Kumar G S	
8	WORKSHOP ON BUSINESS MODEL CANVAS	04/08/2021
	(BMC) by Shri. Chethan Kumar G S	
9	LEVEL 1: IDEATHON Idea Generation Contest	20/08/2021



ka, 139th Rank





Report on Webinar Problem Solving and Ideation Speaker: Dr. Sudeendra Kaushik

Accredited by NAAC & NBA (6 UG Programmes), New Delhi.

Chief Innovator & Co-founder, PRASU, Bengaluru.

The session was started with the welcome speech & speakers introduction by our beloved Principal, Dr. H V Ravindra, PESCE Mandya. As the title of the webinar suggests the agenda of this session was to simplify the complex part of Innovation: "Problem Solving and Ideation".

The webinar was full of new information and new perspective of looking at innovation. The speaker is a well versed expert in the field of Innovation and Idea Generation, and the same was seen all over the session. The speaker made the complete session more interesting by bringing forward many innovation oriented product images and videos. He gave lot of his time to discuss with the young minds regarding Identifying Problems, Finding Solutions and Innovating.

Starting with few of the new ideas, which are creative but not innovative, he started his session and moved on towards the best method to identify a problem as a problem and solving it. The examples and innovative ideas he presented changed everyone's perspective of looking at innovation. Even though he stated the Innovation is not so easy in the initial stages, he was successful in convincing the young minds that, innovation is something that happens commonly in everyone. His approach towards explain the simplicity of innovation was outstanding. He stressed upon the need for understanding the correct methodology to identify a valuable problem. He also mentioned about different ways to segregate the best method of seeking solutions to the identified problems. He was good at demonstrating many ideas that were seem to be wonderful but failed in the market. He mentioned that, every thought that we get can be an idea, Every Idea can be brought up to a product but, the main thing that we have to keep in mind is the outreach of the product and usefulness of the same at the customers end.

He was very active throughout the session and gave ample amount of suggestions to the audience about the identifying a problem, evaluating the quality of it and coming up with new idea to solve those problems. He spent more than 40 min, answering the doubts and questions of the students and faculties. The interaction between the speaker and audience had many new points and the speaker was very happy answering those. Dr. Kaushik mentioned that, he was completely excited to be a part of this event, as there was ample amount of discussion went on. He was very successful in giving out few of the methodologies to take ideas in mind level and with products. the to next come up



P.E.S. College of Engineering, Mandya

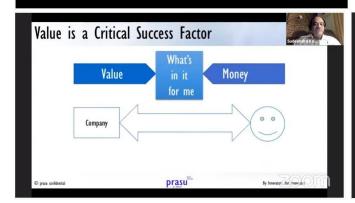


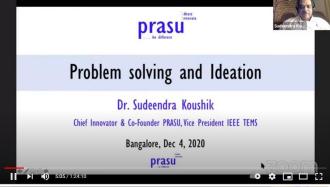


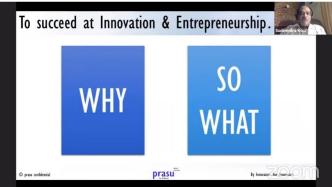


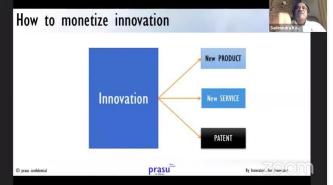














Report on Webinar

"Start Up Entrepreneurship - The Reel Life v/s Real Life Perspectives" Organized under TEQIP – III

At PESCE, the Institution's Innovation Council (IIC-PESCE) has been established to foster interaction between faculty, staff and students with industry. The objective of the cell is to explore and identify common avenues of interaction with Industry as per the requirements and policies of the institution. In a technologically growing world, industry institute interaction is the epicenter of an engineering institute. Based on this context we are proud to partner with various industries & start ups to boost excellence amongst students to suit current industry challenges. The Cell works in synergy with industry and the community sector to find innovative solutions for today's problems. We promote students to develop a competitive edge to be industry and entrepreneurial ready along with preparing engineers with skill sets to contribute to the workforce of tomorrow. In this context the webinar was conducted on the Topic "Start Up Entrepreneurship - The Reel Life v/s Real Life Perspectives" on 22nd December 2020. The program was proposed by our beloved Principal Dr. H. V. Ravindra, TEQIP Coordinator Prof Dinesh Prabhu, Institute Innovation Council Chairperson Dr. Vinay S, Convener Prof. Ullas P and Coordinator Prof. Pooja Nagpal carried forward the event. The Resource person for the workshop was Debajyoti Banerjee, he is a Founder & CEO at Seven Boats, Google Certified Digital Marketer & Trainer, Brand Strategist, Consultant & Entrepreneur. B. Tech in computer engineering & post graduate diploma in Marketing, Debajyoti has 17+ years of domain experience in digital marketing services & training with 500+ clients & 37K+ students in 70+ countries. During the webinar he took the students, faculties and participants through the journey of entrepreneurship, from just the reel life perspective to the real life, the hardship faced, the financial path, avenues and future trends to invade as an entrepreneur. Faculties and students across India had registered and participated in the webinar to make the event a successfully one.



College of

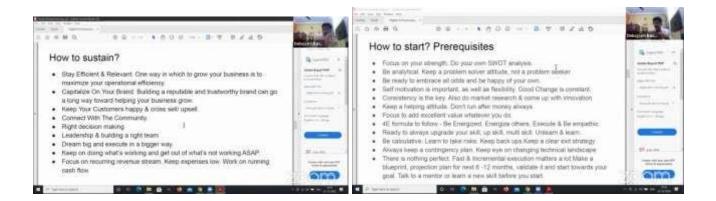
Ranked 2nd

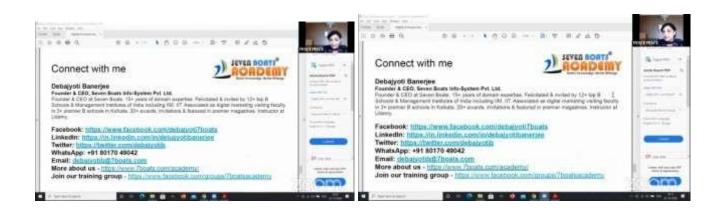
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Report on the Online Orientation Session on "National Innovation and Startup Policy (NISP)" & Briefing Institution's NISP Policy.

Speaker: Mr. Pavan Mujumdar, Mentorific Consulting, Bengaluru.

Date & Time: 28th Jan 2021, 03:00 PM

The session started with a welcome note by Mr. Ullas. P, Convener, IIC-PESCE. He also gave a brief introduction of the Session Speaker Mr. Pavan. Followed by, Mr. Ullas also highlighted the importance of this orientation and Innovation, which is the hot cake the present time. Later, Mr. Pavan took over the session. He started the session with an interesting question, why you need to be excited to be present in this workshop? His presentation, mainly concentrated on Startups, Innovation, Investments, Government schemes available and many more. He made a very smooth attempt to make the students understand, "Why Students should Startup?" He made a clear description of the all the needs and importance of student startups. Mr. Pavan connected all the dots between the innovation, startup and NISP. He gave complete reference to all the highlights of NISP. He was able to answer the question, Why NISP? Mr. Pavan brought out all the good intentions of Government of India, concentrating more on the startups. He stood strong in supporting the idea of GoI, in promoting the startup idea in the bachelor degree level. He explained all the reasons, why students at this age should think about startups? He also gave lots of information on what are all the points on which the youngsters should focus to take steps towards startups. His presentation highlighted on the few points like: Infrastructure, Business Services, Financing, Networking, Education, Brand Building & Management Programs. Which are all the needs for an entrepreneur? He explained all the roles of the students, teachers and institutions in making this NISP a grand success. He presented many ways to raise funds and build incubation at institution and the steps the institutions should take to make this NISP possible. He stressed on the need for a balanced working team with good amount of students and faculties to enhance the chances of successful startups. He also mentioned the needs of faculty involvement in mentoring the students to achieve their dreams through this policy. At the end of his session, Mr. Pavan was open for questions and he answered many questions that were related to NISP, Innovation and Startups. P.E.S. College of Engineering, Mandya – 571401 (An Autonomous Institution affiliated to Visvesvaraya Technological University, Belgavi) Aided by the Govt. of Karnataka | accredited by NBA & NAAC, New Delhi.



P.E.S. College of Engineering, Mandya









08232-220043, Fax: 08232-222075; Web Site: www.pescemandya.org

Later this session was handed over to Mr. Phalanetra H S, Assistant Professor & Internal Member of NISP Committee of PESCE, Mandya to brief the students an faculties about the NISP policy of PESCE institution. He displayed the whole team who are working hard to ward the success of NISP at our institution. He, also listed out the roles and responsibilities of individual members in the team. Mr. Phalanetra explained the vision, mission and plans that are planned under the NISP of the institution. He also explained regarding the objectives of the NISP that are planned to enhance the startups at our institution. He brought many of the important information related to the student and faculty involvement platforms created under this NISP policy. He also explained about the goals and plans made for the coming days and opportunities available for the students and faculties of the college. Finally, he mentioned about all the platforms available under NISP, and called on the students to make use of this great platform.



Attendees:

Faculties of PESCE, Mandya: 20.

Students of PESCE, Mandya: 675 (Total Views on YouTube Live).

Faculties and Students from Outside PESCE: 25.

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13 Academic Audits

The institution, regular intervals, carryout both internal and external audits by certified chartered accountant appointed by the management. The institution has a pre-defined mechanism for internal and external audit.

- Internal audit is conducted by the internal auditor of the Institute once in a year.
- External audit is conducted by the chartered accountant once in a year. The income and expenditure details of the institution under various heads are regularly maintained using Tally and a day book is separately maintained showing the statement of accounts. Internal audit of our institution account is conducted by a chartered accountant appointed by the management every year at the end of financial year. The Institution identified Chartered Accountant is conducting the audit of our institution. The auditors check and verify the financial accounts every month and at the end of the academic year overall financial audit for the complete year is conducted. Since our institution is aided by Govt. of Karnataka, apart from the internal audit, the Auditors from Govt. AG office conduct the external audit every year.

14 Proceedings of the Internal Quality Assurance Cell (IQAC) Meeting

1. Minutes of IQAC Meeting held on 30th Sept. 2020 at 11.30 AM in the Principal's Chamber.

In the beginning of the meeting, the chairperson of IQAC Dr. H. V. Ravindra, Principal of PESCE welcomed all the members of IQAC committee members and advice to discuss the agendas.

Proceedings of the meeting:

Agenda - 1: Introduction of new members of IQAC and Department coordinators committee.

The coordinator of IQAC committee Dr. Shivalinge Gowda introduced the new members of the committees in the meeting.

Agenda - 2: Measures for following of COVID – 19 guidelines in the campus.

In the meeting, the senior members were give the suggestions to the principal to take proper measures to follow the COVID - 19 guidelines in the campus by providing hand sanitize instruments in all departments and office, display of COVID - 19 instruction boards in the campus and creating awareness in the students etc., Our principal agrees to follow the guidelines.

Agenda - 3: Activities to be conducted for newly admitted students through SIP

With the directions of chairperson, the committee insists the coordinator of Induction programme to conduct the activities as per the directions of AICTE and VTU in online mode. For this, SIP coordinator Dr. Shivalinge gowda willing to conduct the activities with the help of department coordinators and the support of the principal.

Agenda - 4: Academic Activities - Conduction of classes in blended mode.

For conducting classes, the committee suggested to follow the norms of state government as well as VTU. The committee suggested conducting the theory classes in online mode and practical classes in offline mode. In addition to that, reading materials and video links for the experiments should be shared to the students. The chair person advised the HoDs to monitor.

Agenda - 5 : Any other issues with the permission of chair.

The chairman and principal Dr. H. V. Ravindra suggested to save the nation and the society by contributions in this COVID situations.

All the members are agreeing for this without discussion.

Finally, IQAC chairman summarized all the agendas and try to implement them. Lastly, IQAC coordinator Dr. Shivalinge Gowda express vote of thanks to all members for their active participation and valuable suggestions.

The meeting was concluded with the permission of chairperson.

No. of members present	Number of members absent
11	07

Dr. H. V. Ravindra

Principal

Dr. Shivalinge Gowda

IQAC Coordinator





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Minutes of IQAC Meeting held on 4th Nov. 2020 at 11.00 AM in the Principal's 2. Chamber.

In the beginning, the chairperson of IQAC Dr. H. V. Ravindra, Principal of PESCE welcomed all the members of IQAC and department IQAC committee coordinators.

Proceedings of the meeting:

Agenda - 1: Collection of data with documents for preparing AQAR.

The committee has decided to give the responsibilities for the department coordinators to collect the data from their respective departments along with relevant documents as per the NAAC AQAR guidelines and submit the same to the IQAC coordinator.

Agenda - 2 : Preparation of AQAR report for the Year : 2020-21.

IQAC coordinator compile the data collected by the department coordinators as well as office, Training & placement centre, sports and library etc., He may also collect the relevant documents for Part-A and Part-B of AQAR for the year.

Agenda -3: Collection of data for online classes and activities conducted during the year.

As per new guidelines of AQAR, data of online classes and activities conducted are essential. So that, coordinator insist to provide the data for all activities conducted during pandemic situation.

Agenda – 4: Any other discussion with the permission of the chair

All the members are give their opinion/suggestions for better achievements in academic activities and social responsibilities.

Finally, IQAC chairman summarized the discussions made about all the agendas and agree to give the support and cooperation for the fulfillment of them. At the end, IQAC coordinator Dr. Shivalinge Gowda express vote of thanks to all members for their active participation and suggestions.

The meeting was concluded with the permission of chairperson.

No. of members present	Number of members absent
13	05

Dr. H. V. Ravindra

Principal

Dr. Shivalinge Gowda **IQAC** Coordinator



3. Minutes of IQAC Meeting held on 20th April 2020 at 3.30 PM in the Principal's Chamber.

In the beginning of the meeting, the chairperson of IQAC Dr. H. V. Ravindra, Principal of PESCE welcomed all the members of IQAC committee members as well as department IQAC committee coordinators.

Proceedings of the meeting:

Agenda - 1: Discussion on the prepared Annual Quality Assurance Report (AQAR).

IQAC coordinator Dr. Shivalinge Gowda show the compiled data collected from the department coordinators. He also found some errors in the data and missing of supporting documents. The related department coordinators are agree to provide the data and supporting documents. The committee members are appreciated regarding the prepared AQAR to be submitted and they agree to submit the report after correction with relevant documents.

Agenda - 2: Plan of action for submission of AQAR to NAAC within the stipulated time.

IQAC coordinator Dr. Shivalinge Gowda agrees to submit the AQAR within the stipulated time after incorporating the corrections with relevant documents to NAAC as per the suggestions given by the members and principal.

Agenda - 3: Any other issues with the permission of chair.

In case of other issues, the chair person of the IQAC committee Dr, Ravindra, Principal PESCE informed to the members that the final AQAR should be submitted after placing the report in GC/CC meeting to the NAAC web portal as per the schedule.

IQAC coordinator Dr. Shivalinge Gowda agrees to submit the AQAR within the stipulated time after incorporating the corrections with relevant documents to NAAC as per the suggestions given by the members.

At the end, IQAC coordinator Dr. Shivalinge Gowda express vote of thanks to all members for their suggestions and support.

The meeting was concluded with the permission of chairperson.

No. of members present	Number of members absent
12	06

Dr. H. V. Ravindra

Principal

bush

Dr. Shivalinge Gowda

IQAC Coordinator



PESCE - Upstairs

COVID – 19 Vaccination Drive





Virtual Orientation Day

Dear Parents & Students. You are cordially invited to the

Virtual RIENTATION PROGRAMME of B.E. - I year (Academic Year 2020-21)

Inauguration & Presided by

Sri. K S Vijay Anand

Honourable President, People's Education Trust®, Mandya

Chief Guest

L Shiva Prasad

Honourable Secretary, People's Education Trust®, Mandya

Date: 28th December 2020 autonomous instit

Time: 10:00 a.m. onwards

Venue: MBA Smart class room

https://youtu.be/fdK3zfKJn34

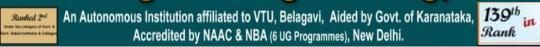
Dr. H V Ravindra

Principal, PESCE, Mandya

Staffs













PESCE - Sports Complex



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Research Activities





PESCE – Graduation Day





PESCE – Infrastructure Information

