



## RESEARCH AND DEVELOPMENT CELL (R&D CELL)

**A. P. Shah Institute of Technology** has promoted meaningful scientific industrial Research and Development activities with a vision and mission to pursue and promote Research in Frontier Technologies as well as in the various disciplines of Engineering.

For any education, specifically technical education, the basic model of a 'teaching – only' institution is inadequate to ensure quality education. In all disciplines of technical education, knowledge is dynamic with new technologies being introduced very frequently. In this scenario, it is not possible for the teachers to deliver good quality instructions without being tuned to the current developments in the subjects, for which they must constantly update their knowledge. A well-recognized way to deal with this paradigm is for the teachers to be active researchers in the areas in which they interested. As researchers, they need to understand the past and recent developments in their subject areas.

Research and Development cell was established at APSIT to inculcate research and innovative skills among faculty and students. R&D Cell provides a platform for creativity and innovation to flourish young minds in Institute. Innovative breakthroughs will happen only because of meticulous efforts of R&D. The Institute provides SEED amount to facilitate basic common research infrastructure for individuals to execute collaborative work.

APSIT R&D cell is a nominated committee consisting of Professors from various programs of Engineering. This committee oversees the smooth and efficient coordination of research and development activities in the Institute, thus fostering overall growth. The organizational structure consists of Advisor, Principal, Dean and Coordinators for facilitating the routine functioning of the cell.

### COMPOSITION OF R&D CELL

**Advisory Committee-** Institute Research Advisor, Principal, Dean and 3 or 5 renowned external Academic Personalities with sufficient Research and Administrative background.

**Institute Research Advisor-** a Professor with at least 10 years of research supervision experience

**Coordinators-** 5 to 7 teaching faculty members from the Institute, with research supervising experience and 1 or 2 non-teaching officers representing with experiences in research related administrative duties.

### RESPONSIBILITIES OF MEMBERS

**Advisory Committee-** The role of advisory committee to RDC is to give advises on research matters whenever necessary.



**Coordinators-** Coordinators are expected to report back on Institute research committee business to their constituents (in faculties, research students, other committees), as well as participating in committee discussions and decision making.

#### **Institute Research Advisor-**

- Thorough knowledge of grants/funds availability for research projects/FDPS /Seminars/Workshops for students and faculty
- Acting as a liaison with other Institute administrative support units, sponsors, and auditors.
- Support research student and faculty in the development of proposals and related financial narratives and budgets
- Thoroughly understand unallowable, direct, and facilities and administrative (F&A) costs.
- Assuring that costs incurred under sponsored research projects conducted within the department comply with sponsor and University policies

#### **Meeting**

The R&DC will meet at least four times per year.

#### **Objectives**

- To foster scientific temper.
- To generate innovative ideas on academic and societal problems
- To Encourage, Coordinate And Implement Research And Development Programs (workshops/ seminar/ trainings)
- To create awareness on evolving technologies and industrial standards for products.
- Provide scope for faculty and students to work on latest evolving technologies with industry standards through consultancy projects.
- To identify and inform researchers about the appropriate research opportunities announced by different academic, research, industry or government organisations.
- To encourage and facilitate the publication of the research work/projects in reputed academic journals and reputed conferences
- To prepare and implement a research quality assurance mechanism for ensuring that all research activities of the college conform to standard quality specifications.
- To develop, prescribe and administer rules and regulations to ensure the compliance of all researchers to the research quality assurance framework and the research code.
- To encourage Core Competence and Consultancy work
- To create awareness about filing Patents & IPR

#### **R & D CELL MAIN ACTIVITIES**

- Assists faculty, research scholars and students in filing research proposals for grants from various funding agencies like DST, AICTE, MHRD etc.
- Allocates funds for in-house R & D projects of the faculty, research scholars and students.



- Assists the faculty, research scholars and students in filing of IPRs like patents and copy rights.
- Creating awareness and motivating researchers to work in emerging domains of engineering and technology.

### **RESPONSIBILITIES OF R&D COMMITTEE**

- To prepare annual research activity plan for all the departments.
- To establish liaison with near and far industry and identify the technological challenges being faced by them. Strengthen industry institute interaction through MOUs for long term relationships with national and international research organisations for widening the scope of research options and funding opportunities for faculty and students.
- Take up appropriate problems of the industry for finding solutions through R&D projects assigned to faculty and students.
- Explore technological developmental opportunities in common application areas such as transport, traffic regulation, security, healthcare etc. and assign them to faculty and students.
- To initiate and promote MoU with industries and R&D organizations for consultancy, collaborative research, sponsored projects, industry and Institute interactions etc.
- To arrange brainstorming sessions through talks by eminent personalities from industry, R& D organizations and institutions of repute for the better understanding of research methodology and practices currently followed.
- To support faculty for delivering talks at different events and conducting workshops, training programs, seminars, conferences, symposia and faculty development programs.
- To keep everyone informed about announcements by various funding agencies like DST, DAE, DRDO, ISRO, CSIR, AICTE, UGC and University etc.
- To motivate students for presenting papers in National and International conferences and projects in competitions and exhibitions like AVISHKAR at university level. Interdepartmental / collaborative work to be encouraged.
- To monitor progress of the research and development activity.

### **RECOMMENDATIONS AND IMPACT**

- Publications in Research Journals.
- Research Proposals for different funding agencies.
- Participation and Organizing Conferences, Workshops and STTP/FDP.
- Participation in Collaborative Research work, e.g. VAP /Industrial Training.
- Encouragement for Higher Education.
- Signing MOU with Industries and Research Organization.



## **R AND D CELL POLICY**

**To create good infrastructural facilities and conducive environment to inculcate research culture. Policy framework as follows -**

- Incentives are provided for publications.
- Facilities such as flexibility in timings, use of laboratories etc. are extended to faculty as per requirement.
- Implementing a policy for distribution of testing and consultancy charges to motivate faculty for providing consultancy.
- Faculty with an aptitude for research is identified.
- An initiative is taken by Library to help researchers in understanding recent updates of their publications in terms of citation index, h-index, etc.
- In house Project development.
- The institute encourages the formation of various student chapters of professional bodies within APSIT. The institute will bear the membership fees for the same.

### **A. FINANCIAL ASSISTANCE TO STUDENTS FOR RESEARCH**

- a) Students will get reimbursement towards paying registration fees for presenting the paper in the conference. Also, students participating in various events such as technical quiz competition, technical fest, and technical poster presentation competitions at state level as well as at national level will be reimbursed by the institute.
- b) Institute motivates the students for undertaking the interdisciplinary projects and provides required financial support.
- c) Final year students will be given reimbursement for performing tests on the samples in the outside laboratory if required for their project work. Students must seek prior approval from concerned project guide and HOD.

#### **Financial assistance to Students for Research Process:**

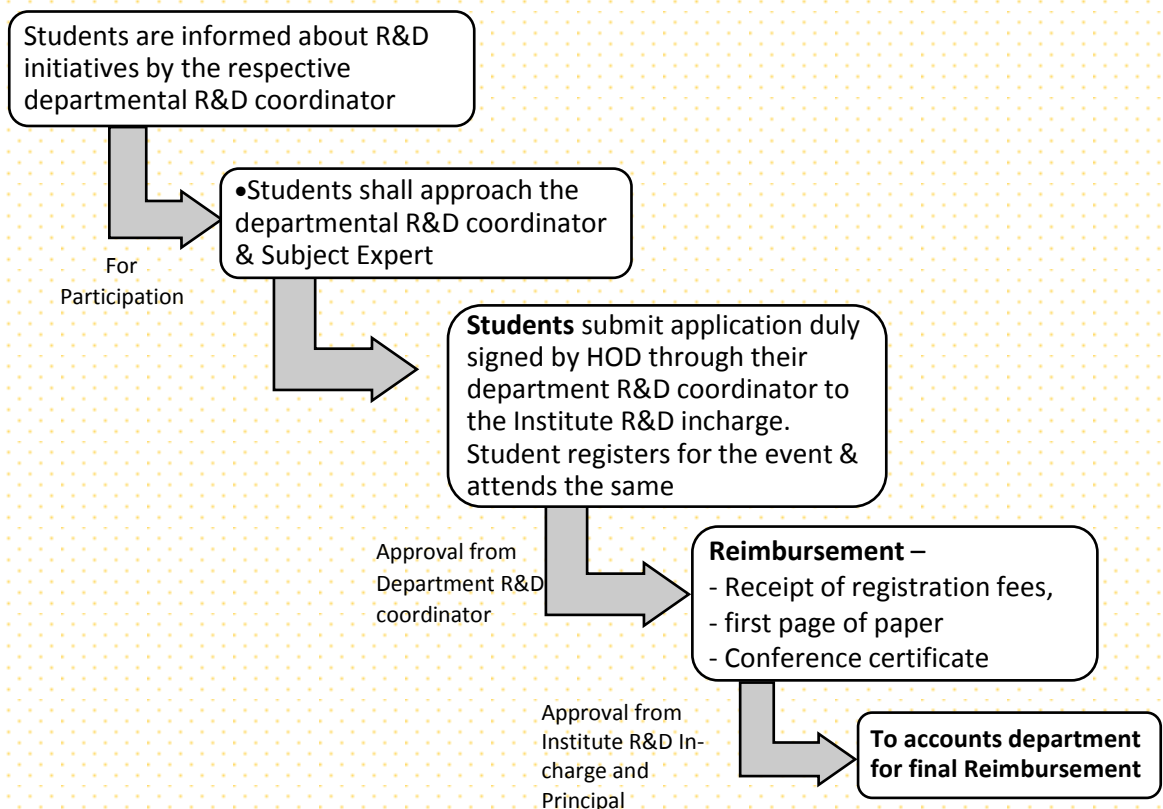
- Students are informed about R&D initiatives by the respective department R&D coordinator.
- Students willing to publish research paper/participate in any technical activities shall approach the department R&D coordinator
- Students need to submit application signed by concerned HOD and their department R&D coordinator to the institute R&D in charge.
- On approval, the student registers for the conference.
- Students attend the conference.
- For reimbursement purpose, students must enclose receipt of registration fees, first page



of paper and conference certificate along with application and submit it to department R&D coordinator. Department R&D coordinator approves the request.

- Students submits the above approved documents to the Principal for approval.
- Principal finally approves the application for reimbursement.
- Students needs to submit bills of expenditure to the head of department for approval and then to the accounts department for reimbursement. Students submits the above approved documents to the accounts for reimbursement.

### Financial assistance to Students for Research Process:



### B. FINANCIAL ASSISTANCE TO FACULTY FOR RESEARCH

- The college provides financial support by reimbursing registration fees only for presenting papers in reputed National/International conferences held within India and for attending FDP/STTP/workshop/Seminar in other organizations in India.
- Faculty would also look for an alternate source of funding for participation in a conference viz., AICTE/UGC etc.
- The faculty can avail OD for attending the conference/FDP/STTP/workshop/Seminar.

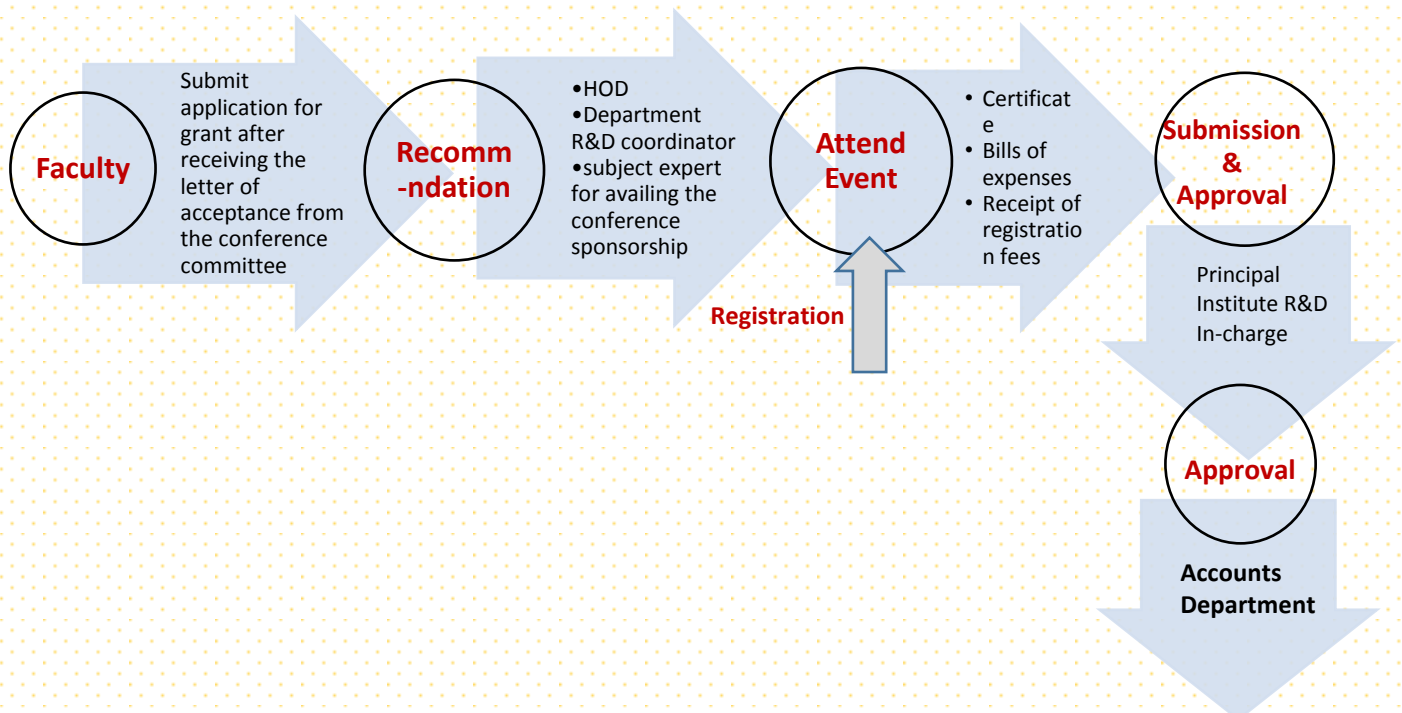


- iv. The faculty should fill the required forms, get the approval and submit the same to the office before proceeding for the same.
- v. The total cost of organizing any technical event for student and faculty will be borne by the institute.

**Financial assistance to faculty for Research (Conference /FDP/STTP/workshop/Seminar) Process:**

- i. All requests for grant have to be made prior to the conference. Faculty members will submit the application for grant when they receive the letter of acceptance from the conference committee.
- ii. The recommendation of Head of Department, Department R&D coordinator & subject expert is required for availing the conference sponsorship.
- iii. On approval, the faculty registers for the conference and Faculty attends the conference/FDP/STTP/workshop etc.
- iv. For reimbursement purpose, faculty must enclose receipt of registration fees, first page of paper and conference/workshop certificate along with application and submit it to department R&D coordinator.
- v. Faculty submits the above approved documents to the Principal for approval within 15 days of attending the conference.
- vi. Principal finally approves the application for reimbursement.
- vii. Faculty submits the above approved documents to the accounts and gets reimbursement

**Financial assistance to faculty for Research (Conference /FDP/STTP/workshop/Seminar) Process:**







## **INITIATIVES TAKEN TO INCULCATE THE SPIRIT OF RESEARCH AMONGST FACULTY AND STUDENTS ARE AS FOLLOWS**

### **A. Innovation and Entrepreneurship Development Cell**

Innovation and Entrepreneurship Development Cell (IEDC) is established to cultivate an entrepreneurial culture in APSIT and to foster the techno entrepreneurship for generation of wealth and employment by APSITIANS. The IEDC helps the student community to conduct the research work and survey for identifying entrepreneurial opportunities. The main objective of promoting an entrepreneurship among the youth is to nurture the passion for self-employment. This will open the gates for the creation of a new knowledge-based innovative hi-tech ventures, industries and a new breed of techno entrepreneurs and more avenues of employment opportunities, thus turning the job seekers into the job creators and in this process, leading a nation towards the industrial excellence and the self-reliance. The Innovation and Entrepreneurship Development Cell of this college aims towards achieving the above.

### **B. Uddan Incubation centre**

To have your own Start-up you need to know the “Technical know-how” of today's industry. Here we provide such an incubation centre for students to develop, evolve, and learn from their mistakes and PROGRESS.

The significant factors indicating potential growth in the research activities includes the enhancement in the research publications in peer reviewed journals, Research Projects/ grants, Patents, Collaborations, Doctoral program and Faculty development. R & D cell is focusing the attention on the following major activities:

### **C. Research Publications**

As a result of tireless efforts taken in the research activities, the college has to its credit many research publications in National and International peer reviewed Journals. The faculty members have also presented research papers in various reputed national and international conferences. The total 108 plus research papers have published during academic Year 2017- to 2020, out of which 80 research papers have been published in journals and remaining have been published in conferences.

### **D. Research Projects**

One of the important criteria to judge the performance of research output of the institution is to obtain recognition by reputed Government/Autonomous sponsoring agencies towards generation of funds to conduct quality research. The institute would attempt to receive a number of research grants from agencies like DST, AICTE, IET, DRDO, CSIR etc. in near future. In addition to this, APSIT has also encouraged the faculty members to initiate research by giving the seed money to undertake various minor research projects.

### **E. Ph. D. Programs**

Quality engineering education coupled with innovative research and development is absolutely essential towards the overall faculty development. The APSIT encourages higher education of faculty members to keep abreast of continuous technological development.



Accordingly Institute promotes participation of faculty in innovative research by providing a conducive environment, necessary facilities and motivation.

### **Facilities available for R&D**

- i. The researchers are given highest priority in the institute. All the departments have well equipped laboratory facilities for the research and it can be made available to the students for research work.
- ii. For multidisciplinary research projects, faculty and students can work in other department laboratories.
- iii. Institute has purchased various latest software for research activities which helps the faculty and students in developing their projects. Through the available educational software, faculty and students can take advantage of a variety of tools and resources in the academic program. These will help prepare students for tomorrow's infrastructure workforce. Users can learn the powerful applications that are in use by infrastructure professionals today.
- iv. The software and tools in APSIT SKILLS Centre will help optimise the higher education institution's value for all students & faculties by tapping into the insights and solutions derived from this software. This software will enable APSIT to integrate educational skills and real-time job experiences in collaboration with businesses. It will give students access to advanced technology and thereby help learn emerging job skills.
- v. The college has labs with 700+ computers and provided high speed internet facility to faculty as well as students.
- vi. The Library has an extensive collection of books and e-books with 28000+ books in volumes covering all aspects of engineering.
- vii. The library facilitates access to more than 400 video lectures under NPTEL prepared by various IITs.
- viii. E-Resources are also available and can be accessed from any computer in the campus.

### **Research Resources at APSIT**

1. Industry Institute Interaction Cell (IIIC)
2. APSIT SKILLS Centre
3. Library & E-Library
4. Computing to Support research
5. Shared Resources – Labs
6. Clubs like Mac club, Xpression Club etc.
7. Communities and chapters like APSIT IEEE, APSIT Salesforce etc.





### R & D COMMITTEE MEMBERS

<b>Sr. No.</b>	<b>Name of Faculty</b>	<b>Designation</b>	<b>Department</b>
1	Dr. Uttam Kolekar	Principal	Electronics and Telecommunication Engineering
2	Dr. Madhuri Mulay	Institute Level Coordinator	Civil Engineering
3	Dr. Mugdha Agarwadkar	R&D Coordinator	Civil Engineering.
4	Dr.. Mamta Kurve	R&D Coordinator	Electronics and Telecommunication Engineering
5	Prof. Sneha Kanchan	R&D Coordinator	Information Technology Engineering
6	Prof. Sukhada Aloni	R&D Coordinator	Computer Engineering
7	Dr. Jaya Goyal	R&D Coordinator	Mechanical Engineering
8	Dr. Suma Shreedhar	R&D Coordinator	Humanity & Applied Science Department



### Research projects and Funding

Sr. No.	Name of Principal Investigator	Title of the Project	Department	Status	Academic Year	Sanction by	Sanctioned Funds
1	Prof.P.S.Jagtap, ProfV.S. Pagey	Reuse of reclaimed asphalt in pavement construction	Civil Engineering	Approved	2018-2019	University of Mumbai( Minor research Grants)	
2	Prof. S M Kondawar & Prof. S T Naikwade	Analysis of Polyester Resin and Glass Fiber Composite	Mechanical Engineering	Approved	2018-2019	University of Mumbai( Minor research Grants)	
3	Prof.P.S.Rao	A Model Study on Effect of Slenderness Ratio of Micropiles under Axial Loading	Civil Engineering	Submitted	2019-2020	University of Mumbai( Minor research Grants)	
4	Prof.P.S.Rao	Potential of Coir Geotextiles over Synthetic Geotextile as Soil Reinforcing Materials in Marine Clay	Civil Engineering	Submitted	2019-2020	University of Mumbai( Minor research Grants)	
5	Prof.M.M.Samant	Energy Conservation in Home automation by using IoT	Electronics and Telecommunication Engineering	Submitted	2018-2019	University of Mumbai( Minor research Grants)	
6	Prof. Sonia Aneesh	RF Energy Harvesting System at 2.4 GHz and 3.5 GHz.	Electronics and Telecommunication Engineering	Submitted	2019-2020	University of Mumbai( Minor research Grants)	



7	Prof. Vijitha Rajesh Nair	Greener synthesis of Fe nano particles supported on GDMA-1-vinyl imidazole copolymer and its application for oxidation reactions.	Humanities and applied Sciences. (Science)	Submitted	2019-2020	University of Mumbai (Minor research Grants)	
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### Publications List faculty and Students

Sr. No	Department	Name of Faculty/Student	Title of Paper	Name of Journal/Conference and publisher/organizer	Year
1	CIVIL	Dr. M. R. Mulay	Partial Recovery of Water Supply in Disaster Using Pressure Dependent Analysis	Iranian Journal of Science and Technology, Transactions of Civil Engineering (Springer)	March 2020
2			Criticality Analysis a Tool for Efficient Urban Water Supply Management - Case Study of Surat City	National Conference on Geoinformatics in Water	2019
3			Hydraulic Model for Smart cities- A Case Study of Surat City	ICASTE	2019
4		Prof. Pooja Rao	Understanding Vibration Dissemination Caused Due to High Speed Train in the Supporting Soil	International Conference	2019
5			A Study on Dynamic Behaviour of Monoblock	Springer Nature Singapore	2019



			Concrete Sleepers using SAP2000		
6			Assessment of Plastic Deformation of the Soil in the Gujarat Region Caused by High-Speed Train	International Journal of Recent Technology and engineering (Scopus Indexed)	2019
7			A Study on Effect of Natural Soil Fibres on Bearing Capacity of Soil	International Conference	2019
8			Dynamic Analysis of Slab Track Under Cyclic Loading	International Conference	2017
9			Analysis of Vibrations Induced on Ballastless Track Due to High Speed Trains	National Conference	2017
10		<b>Prof. R. S. Khandare</b>	Roller Compacted Concrete in Pavement-A Review	Conference	Nov-18
11			Effect of CFRP and its lap length in RC beams	Conference	Apr-18
12		<b>Prof. M.P. Joshi</b>	Use of plants for removal of BOD of waste water: A Review	Conference	2018
13			Analysis, Design and Application of Piezoelectric Material for Energy Harvesting: A Review	Conference	2019
14		<b>Prof. V. V. Pagey</b>	Reuse of Reclaimed Asphalt Pavement(RAP) Material in	Conference	2019



			Pavement Construction		
15			Premature Failure Study of Flexible Pavement and its Remedial Measures	Journal	2018
16			Characterisation of Municipal Solid Waste (MSW) and Seismic Slope Stability	Conference	2019
17		<b>Prof. M. Y. Agarwadkar</b>	Spatial Analysis of Self Cleansing Capacity for Salinity Management, ICASTe-19, Jan 2019	Conference	2019
18			Greening existing building using IGBC Codes: Rating system for APSIT building	ICASTE	2019
19			Spatio-temporal Analysis of Groundwater Trends and Climate Change Dynamics Using GIS	ICIRTE	2018
20			Town Planning using GIS	ICASTE	2017
21			Long-term Spatiotemporal Analysis of Seawater Intrusion for Sustainable Groundwater Management in Bhavnagar District,	Second International Conference on GIS and Remote Sensing, Vienna Austria	2017
22		<b>Prof. Nithya K.</b>	Construction of Porous Flexible Pavement Using	Conference	2019



			Waste Rubber Tyre, ICASTe-2019, Jan 2019		
23			Feasibility of Farm Pond For Irrigation in Parched Area, ICASTe-2018, April 2018	Conference	2018
24			Use of Recycled Plastic in Concrete Mixture, ICASTe-2018, April 2018	Conference	2018
25		<b>Prof. P. A. Jadhav</b>	5. "Study of Fine Aggregate Replacement, By Demolished Concrete Waste", ICASTe-2018	Conference	2018
26			6. Effect of Silica Fume on High Performance Concrete, ICASTe 2018	Conference	2018
27		<b>Prof. U. Y. Vazurkar</b>	Development of Vulnerability Curves for Low-Rise RC Buildings, International Conference on Advances in Science, Technology and Engineering (ICASTe 2018)	Conference	2018
28			Feasibility of Farm Pond For Irrigation in Parched Area, ICASTe-2018, April 2018	Conference	2018
29		<b>Prof. V.K.Suryawanshi</b>	A review on concrete filled steel tube column with duplex steel	Conference	2018





30			A comparative study of conventional and bubble deck slab	Conference	2018
31			A comparative study of structural behavior of conventional RCC slab and void slab	Conference	2019
32		<b>Mr. A. P. Shastri</b>	Integrated land-use zoning, using topographical data: Optimizing vacant space for urbanization at Akole taluka, Maharashtra, India	Journal	2019
33	<b>COMPUTER</b>	<b>Prof.S.S.Aloni</b>	Improving the Security of Web Applications using XML Digital Signatures	Conference	2018
34		<b>Prof.Archana Kotangale</b>	Sensitivity Analysis using social networks to identify suicidal tendencies	Conference	2018
35		<b>Prof.Mayuri Jain</b>	Improving the Security of Web Applications using XML Digital Signatures	Conference	2018
36		<b>Prof. Pravin Adiwarekar</b>	Improving the Security of Workflow-based System using Multiple XML Digital Signatures	Conference	2018



37		<b>Prof. Rahul Ambekar</b>	Trust Based Multi Path Routing & Topology Hiding In Mobile Ad Hoc Network : A Secure Perspectiv	Journal	July –2017
38	<b>EXTC</b>	<b>Prof. Mamta Kurvey</b>	Design and Optimization of Stepped Rectangular Antenna for RF Energy Harvesting	International Conference	2018
39			Harvesting RF Energy- A Review	Journal	2017
40			Tri-Stepped Rectangular Antenna (TSRA) for Efficient RF Energy Harvesting	Journal	2018
41			RF Energy Harvesting System	International Conference	2018
42			Design of Wideband antenna used in for RF energy harvesting for WSN	International Conference	2018
43		<b>Prof. Mahesh pawaskar</b>	GSM Based Water Control and Management	Asian Journal	2017
44			Android App Based Tourist Guide	Journal	2018
45			Anti-theft system for vehicle using microcontroller	National Conference	2018
46		<b>Prof. Sonia Aneesh</b>	Wireless Power Transfer using Inductive Coupling	International Conference	2018



47		<b>Prof. Sonal Jain</b>	Race Track Coil Based Deperming Protocol using Cage System	conference(ASIAEM)	2017
48			Optimized Circular Coil Based Deperming Protocol of Naval Vessels Using Cage Systems	IEEE-International conference	2017
49			Current controlled excitation based deperming protocol of naval vessel	IEEE conference	2017
50			Analysis of anhysteretic demagnetization of Under-water Vehicles	Journal	2018
51			Optimization of Circular Coil Systems for Demagnetisation of Marine Vessels	IEEE-International conference	2018
52		<b>Prof. Tejashri kolhe</b>	Automatic detection of malaria parasites for estimating parasitemia	International Journal	2018
53			Wireless Power Transfer using Inductive Coupling	International Conference	2018
54		<b>Prof. Manisha Samant</b>	Wireless Power Transfer using Inductive Coupling	International Conference	2018
55		<b>Dr. Sameer Nanivadekar</b>	"Heuristics approach to speeding up saliency detection",..	International Journal of Signal, Image and Video	Oct,2018



56			"Optimal transmit antenna selection for LTE systems using self-adaptive Grey Wolf Optimization",	Multiagent and Grid System, IOS Press, Vol. 14, No. 6, pp. 67-82,	June, 2018
57			ACSRO: Adaptive Cuckoo Search Based Rate Adjustment for Optimized Congestion Avoidance and Control in Wireless Sensor Networks	Alexandria University Journal hosted by Elsevier, Vol. 57, No. 1, pp. 131-145	March, 2018
58			"An Approach Involving Dynamic Group Search Optimization for Allocating Resources in OFDM-based Cognitive Radio System"	Alexandria University Journal hosted by Elsevier, Vol. 57, No. 1, pp. 193-202	May, 2018
59			Ocular Artefacts Suppression from Multichannel EEG Signal Using Adaptive Threshold and Multilevel Decomposed Wavelets with Automatic Independent Components	International Journal of Applied Engineering Research (IJAR), Vol. 12, No. 11, pp. 2887-2892, Dec 2017.	December, 2017
60			Palm Print Recognition Using Textural Harlick Feature	International Journal of Applied Engineering Research (IJAR), Vol. 12, No. 11, pp. 2922-2925, Dec 2017	December, 2017



61			Transmit antenna selection in MIMO for continuous phase modulation System"	Far East Journal of Electronics and Communications (FEJEC), Vol. 17, No. 10, pp. 567-584, Oct 2017	October, 2017
62			Performance Analysis of Physical Layer in LTE	International Journal of Engineering Research in Electronics and Communication Engineering (IJERECE), Vol. 4, No. 8, Aug 2017.	Aug,2017.
63			Removing Jaw clench, teeth squeeze and forehead movement EMG artefacts from EEG signal using dynamic size segmentation and multilevel decomposed wavelet with adaptive thresholding	Indian Journal of Science and Technology (IJST), Vol. 10, No. 29, Aug 2017.	Aug,2017.
64			Trust Based Multi Path Routing and Topology Hiding in Mobile Ad Hoc Network : A Secure Perspective	International Journal of Advanced Research in Computer Science (IJARCS), Vol8, No. 7, pp. 578-580, Jul 2017	July, 2017
65	IT	<b>Prof. Kiran Deshpande</b>	Betterment Of Resource Allocation In Ofdm- Based Cognitive Radio With Weightage Based Dynamic Group Search Optimization	International conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)	2017
66		<b>Prof. Angha Aher</b>	Survey on variants used for Typing	ICASTe	2018



67		<b>Prof. Neha Deshpande</b>	Survey on variants used for Typing	ICASTE	2018
68			Digital wallet; simple secure way for e transactions.	ICASTE	2018
69		<b>Prof. Vishal Badgujar</b>	IOT-key towards automation	International Conference on Smart City and Emerging Technology(ICSCET)	2018
70			A comprehensive survey on theoretic perspective providing feature direction on IOT	International Conference on Smart City and Emerging Technology(ICSCET)	2018
71			All about cloud; A Systematic survey	International Conference on Smart City and Emerging Technology(ICSCET)	2018
72			EFFECT OF BLACKHOLE INTRUSION IN WIRELESS NETWORKS	International Journal of Computer Engineering and Applications	2019
73		<b>Prof. Apeksha Mohite</b>	Digital wallet; simple secure way for e transactions.	ICASTE	2018
74		<b>Prof. Rujata Chaudhari</b>	Survey of Electronic Payment Systems	ICASTE	2018
75			Survey of various clustering techniques	ICASTE	2018
76			A review paper on image spam filtering	International Journal	2017
77			A novel approach for blind person; blind eye	International Journal	2017
78		<b>Prof. Sunil Sushir</b>	Survey of Electronic Payment Systems	ICASTE	Jul-05





79			Survey of various clustering techniques	ICASTE	2018
80		<b>Prof. Poonam Dhawale</b>	A survey on context aware framework for smart homes	International Journal of Computer Engineering & Applications	2018
81			A survey on network firewall solutions	ICASTE	2018
82		<b>Prof. Nahid Shaikh</b>	A survey on context aware framework for smart homes	ICASTE	2018
83			A survey on network firewall solutions	ICASTE	2018
84	<b>Mechanical</b>	<b>Prof. Jaya Goyal</b>	Envelop insulation for energy efficient smart buildings in India	International Journal of Innovative Technology and Exploring Engineering	Oct-19
85		<b>Prof. Jaya Goyal</b>	Envelop insulation for energy efficient smart buildings in India	International Conference on Delivering Future Infrastructure for Developing Countries (INFRACON), 2019, Pune	Jul-19
86		<b>Prof. Rajesh Behra</b>	Experimental analysis of the theoretical designs of an 800cc petrol car converted to electric	COPEN 2019	Oct-19
87		<b>Prof. Samanavita Roy</b>	CFD analysis on NACA 4415 at various match numbers	NCR TET	Feb-19
88		<b>Prof. Nikhil Khatekar &amp; Prof. Dilip Kunte</b>	Acoustic Emission Characteristics in turning of AISI 303 Stainless steel	IJSER	May-19
89		<b>Prof. Jackson Anthony</b>	Localization of a damage in an	3rd Biennial International Conference on Nascent	2019



			Aluminium plate using Lamb wave based ultrasonic testing and Genetic algorithm	Technologies in Engineering, IEEE Technically Co-Sponsored	
90		<b>Prof. S. T. Naikwade</b>	Natural Fiber-Jute Fiber Reinforced Composites	Cikitusi Journal For Multidisciplinary Research	Apr-19
91			ANALYSIS OF GLASS FIBRE AND POLYESTER RESIN COMPOSITE	D.Y. Patil College Of Engineering Ambi Pune	Apr-19
92			Analysis Polystyrene and Glass Composites	Cikitusi Journal For Multidisciplinary Research	Apr-19
93		<b>Prof. S.T. Roy</b>	CFD ANALYSIS ON NACA S6061 AT VARIOUS ANGLE OF ATTACK	International Journal of Current Engineering and Scientific Research (IJCESR)	Jul-18
94			Comparative Flow Analysis of NACA S6061 and NACA 4415 Aerofoil by Computational Fluid Dynamics	International Journal of Mechanical Engineering (IJME), IASET	Feb-18
95			Review on Turbulent flow of non-Newtonian fluids through pipes	ICASTE	January 2019
96		<b>Dr. Sangram Savargave</b>	Modelling and Optimizing Boiler Design using Neural Network and Firefly Algorithm	Journal of Intelligent Systems, De Gruyter Publishers.   DOI: <a href="https://doi.org/10.1515/jisys-2016-0113">https://doi.org/10.1515/jisys-2016-0113</a> .	Published Online: 11 May 2017
97			Self-Adaptive Firefly Algorithm with Neural Network for Design Modelling and	International Conference on IoT in Social, Mobile, Analytics and Cloud (I-SMAC 2017)	Published Online: 11 May 2017



			Optimization of Boiler Plants		
98			Modelling of Continuous Stirred Tank heater using PEM and N4SID System Identification Techniques	Journal	Feb-17
99	H & AS	Shivsankar S Kore	Comparative Analysis Abdominal mass	IJST	2017
100			A Review. Mass Diagnosis models	IJARSE	2017
101		Dr. Suma Sreedhar	Work on...work performance	IJARIIT	2017
102			Impact of ...resource management	IJARIIT	2018
103		Prof.Nilofer Shaikh	Cryptography & its Practical Applications	ICASTe	2018
104		Prof.S.R.Yadav	An Implementation of I2C using Embedded C in Atmel IC for Lux meter	JEPFT	2018
105		Prof. Shweta Shinde	Review of Hist..ns to Cryptography	JEPFT	2018
106		Prof. Nitesh R. Chindarkar	Efficient synthesis.....e 2, 2017	Journal	2017
107			Studies of..... 2,4,5-6, JUNE 2017	Journal	2017
108			Efficient Synthesis a.....2X, 2018	Journal	2018



### CONSULTANCY RESEARCH ACTIVITIES:

Sr. No	Name of faculty (Chief Consultant)	Client Organization	Title of project	Department	Financial Year	Amount received (in Rupees)
1	Prof. Selvin Furtado	Aknoledge Engineering Solutions, Mumbai	Smart steering system	EXTC	2017-18	₹ 20,000
2	Prof. Selvin Furtado	Aknoledge Engineering Solutions, Mumbai	Smart steering system v2	EXTC	2018-19	₹ 20,000
3	Prof. Kiran Deshpande	DTE (Directorate of Technical education)	NBA Status Portal	IT	2018-19	NIL
4	Arti Vishwanath	HAFA Hoists Pvt Ltd	Design validation of 2T and 4T EOT crane	Mechanical	2017-18	₹. 25,000

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