P E S COLLEGE OF ENGINEERING

Mandya—571 401, Karnataka, Estd. In 1962
(An Autonomous Institution affiliated to VTU, Belagavi)
Approved by AICTE, New Delhi
Grant in Aid Institution (Govt. of Karnataka)
Accredited by NBA (six Programmes) & Accredited by NAAC
Secured Rank 161 by NIRF-2019 Rankings, Approved by MHRD, Govt. of India

TEQIP-3
Technical Education Quality Improvement Programme

Chairman-BoG: **Dr. Ramalingaiah,** Principal & Director **Dr. H V Ravindra**
TEQIP Coordinator & Editor: **Prof. B Dinesh Prabhu**

TEQIP-NEWS LETTER

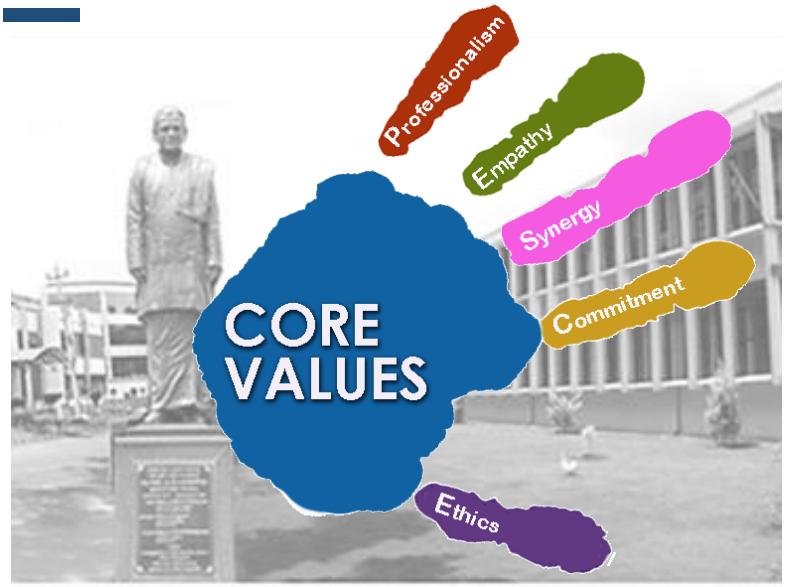
Foreword

Vision:

"P.E.S.C.E. shall be a leading institution imparting quality engineering and management education developing creative and socially responsible professionals"

Mission:

- To provide state of the art infrastructure, motivate the faculty to be proficient in their field of specialization and adopt best teaching-learning practices.
- To impart engineering and managerial skills through competent and committed faculty, using outcome based educational curriculum.
- To inculcate professional ethics, leadership qualities and entrepreneurial skills to meet societal needs.
- To promote research, product development and industry-institution interaction.
- Highly committed to provide quality, concurrent technical education and continuously strive to meet expectations of stakeholders.



- The Project, Third phase of Technical Education Quality Improvement Program (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions to improve their policy, academic and management practices.

Project Objectives:

- Improving quality and equity in engineering institutions in focus states
- System-level initiatives to strengthen sector governance and performance which include widening the scope of Affiliating Technical Universities (ATUs) to improve their policy, academic and management practices towards affiliated institutions, and
- Twinning Arrangements to Build Capacity and Improve Performance of institutions and ATUs participating in focus

Project Scope:

- Only the Government and Government aided AICTE approved Engineering Institutions/Engineering Faculty/ Engineering Teaching Department/Constituent Institutions of Universities / Deemed to be Universities and new centrally funded institutions in SCS will be the part of the project.
- An estimated 200 Government and Government funded engineering institutions, including Affiliating Technical Universities (ATUs), selected under different sub-components in one or two cycles.

Project Strategy:

- The project is implemented in alignment with the 12th Five Year Plan (2012- 17), based on faster, sustainable, and inclusive growth.

Project Design:

- TEQIP seeks to enhance quality and equity in participating engineering education institutions and improve the efficiency of the engineering education system in focus states.


Karnataka
- Mysore & MCE-Hassan
Collaborative Research"


P.E.S. COLLEGE OF ENGINEERING, MANDYA
SPIU,
Mysore & MCE-Hassan


-Hassan
esearch"


P.E.S. COLLEGE OF ENGINEERING
SPIU, Karnataka
In Association with
SJCE - Mysore, NIE - Mysore & MC
Hearty Welcome to Delegates
Sponsored by


SPIU, Karnataka
- Mysore & MCE-Hassan


Industry Institute Interacuon


Symposium
on
"Collaborative
Research"

1. TEQIP-III Assignments

The TEQIP Team and Institution Academic Team members assigned specific tasks related to the development of the Institution supported by TEQIP-3. This task may be a MoU with other elated institution or TEQIP-III assignments or related to Twinning programme that shall be carried out under project for better execution of the TEQIP-3.

Type of Academic Activity	**Web Based Academic MIS**
Details of Academic Activity	TEQIP-III Assignment
Faculty / Staff	Dr. Mahesh Kaluti Nodal Officer-Academic
Date & Place	9th April 2019, Mumbai

Training Workshop on Web-Based Academic MIS. Academic MIS is newly developed MIS Software for an efficient processing and monitoring of academic information for TEQIP Colleges in India and made Go-Live for use by project institutes. The new Academic MIS shall replace the existing MIS which was a stop-gap arrangement, from 1st April 2019. And to familiarize with the new Academic MIS, a training workshop is arranged for Nodal Officer MIS and MIS Officer/Operator on 9th April 2019 at Sardar Patel College of Engineering, Andheri (West), Mumbai. Programme schedule of the workshop.

Type of Academic Activity	**Post Procurement Review (PPR) Meeting for the Financial Year 2018-19**
Details of Academic Activity	TEQIP-III Assignment
Faculty / Staff	• Prof. B Dinesh Prabhu TEQIP Co-ordinator • Mr. Mahesh M S Programmer
Date & Place	29th April 2019, Copia Corporate Suites, Jasola Vihar, New Delhi

As per the instructions of the World Bank, the **"Post Procurement Review (PPR)" f**or FY-19 was held on 29th April, 2019, at Copia Corporate Suites, Jasola Vihar, and New Delhi.
The PPR was conducted by the World Bank officials.
The contract (**package no. TEQIP-III/KA/pcem/35**) of our institution was randomly selected by the World Bank officials for PPR.
Ms. Rupali Jha, TEQIP-3 Associate Consultant (Proc.) Intimated us (concerned officials) on 22nd April 2019 to personally appear, along with all the documents of selected contract for the review to be held on 29th April, 2019 at National Project Implementation Unit, Jasola Vihar (new location), New Delhi. It was also mentioned that, it is mandatory to attend the PPR and in no circumstances the concerned officer should skip the Post Procurement Review (PPR).
Pro. B. Dinesh Prabhu, TEQIP coordinator and Mr. M.S. Mahesh, Programmer at TEQIP cell participated in Post Procurement Review (PPR) meeting, interacted with the World Bank official Mr. Panda during the review and explained all the procedures/ process followed during procurement. Our Institute TEQIP officials very well addressed all the queries /doubt raised during the PPR.

Type of Academic Activity	**Video Conferencing With all mentor Institutions**
Details of Academic Activity	TEQIP-III Assignment
Faculty / Staff	• Prof. B Dinesh Prabhu TEQIP Coordinator • Mr. Mahesh M S Programmer
Date & Place	26th March 2019, MHRD VTU Belagavi

A TEQIP-III Meeting through Video conferencing with all mentor institutions (1.3) held on 26th March 2019, under the Chairmanship of Secretary (HE), MHRD at VTU Belagavi.
The agenda of the meeting was to review the mentoring support provided by 1.3 institutions to their partner 1.1 institutions for; Improving placement, Collaborative research activities Internships, GATE/ employability skill training Joint publications, NBA Accreditation, Guidance for autonomy and Coverage of syllabus for compensating the shortage of faculty.Representatives from all 1.3 mentor Institutes attended the meeting. The mentor Institutions were present with a report regarding each of the above mentioned points in agenda and the same was communicated to SPIU Karnataka and NPIU New Delhi. The mentor Institutions were informed to give information asked for regarding the agenda points during Video Conference.

Type of Academic Activity	**Preparation of Action Plan for Additional Grants and TEQIP-III Activities**
Details of Academic Activity	TEQIP Meeting
Faculty / Staff	• Dr. H V Ravindra Principal & Director-TEQIP-III • Prof. B Dinesh Prabhu TEQIP Coordinator • Dr. D. R. Umesh Nodal Officer-Procurement
Date & Place	3rd July 2019, DTE, Bangalore

A meeting for **"Preparation of Action Plan for Additional Grants"** was convened at TEQIP Conference Hall, office of DTE/SPIU, Bangalore on 3rd July 2019.

NPIU has informed that as the Institutions identified as High Performing Institutions will get additional grants, these colleges are required to submit an action plan for the additional funds. The meeting was convened to discuss and finalize the action plan for additional funds. The Principals and the TEQIP Coordinators were requested to attend the meeting along with their draft plan for additional fund. NPIU has also stated that, the selection of Institutions for Additional funding shall be based on the achievement of minimum 6 of the 8 Performance indicators, mentioned below, with the overall 70% of Expenditure of PLA being mandatory. It was also instructed to the mentor Institutions to report the Current Status of the benchmarks of Performance indicators against the Target. The performance indicators and target being - Overall Expenditure of PLA (70%), Eligible UG programs accredited or applied for(70%), Eligible PG programs accredited or applied for(70%), Transition Rate (SC/ST) (70%), Performance Audit Score(70%), Twinning Score in Performance Audit(70%), R & D: Any 3 activities out of 4 suggested in MTR(70%) and MIS data entry(70%). One of the important benchmarks for continuous performance assessment and continued funding is the R&D activity, it was mentioned.

To facilitate the exchange of the information about the R&D activities in our State between TEQIP 1.3-Institutions with their respective Mentee Institutions, SPIU said, it will plan an awareness workshop in either Mandya or Mysore shortly.

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Type of Academic Activity	**Collaborative Research Programme**
Details of Academic Activity	TEQIP Meeting
Faculty / Staff	• Prof. B Dinesh Prabhu TEQIP Coordinator • Dr. Vinay S Professor & HoD
Date & Place	9th August 2019, DTE, Bangalore

As per the discussions made, during the previous meeting for Preparation of Action Plan for Additional Grants, on 3rd July 2019, to facilitate the exchange of the information about the R&D activities in our State between TEQIP 1.3-Institutions with their respective Mentee Institutions, SPIU called a meeting about the implementation plan progress by PESCE, Mandya about Conduction of **"Collaborative Research Programme".** In this context, a meeting was held with Sri. Manohar Nayak, Nodal Officer about the conduction of "Symposium on Collaborative Research Programme" to be held on 19th and 20th August 2019 at Mysuru. In view of this a necessary and detailed discussion on various issues connected with the programme was made on 9th August 2019 at office of SPIU, Directorate of Technical Education, and Bangalore.

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Type of Academic Activity	**Submission of Revised Action Plan Meeting & Review**
Details of Academic Activity	TEQIP Meeting
Faculty / Staff	• Prof. B Dinesh Prabhu TEQIP Coordinator • K Ravi Asst. Nodal Officer-Procurement
Date & Place	11th June 2019, SPIU Bengalore

A meeting of the TEQIP- III Coordinators of Karnataka, presided over by the "Director of Technical Education" was convened on 11th June 2019 at SPIU office, Directorate of Technical Education, Bangalore.

This meeting was arranged in continuation with discussion held in 3rd JRM follow up meeting held at NPIU, New Delhi on 3rd and 4th June 2019. Based on the detailed achievements presentations made by the Nodal Officer, SPIU-Karnataka during JRM follow up meeting, the World Bank Authorities suggested for submission of revised Action Plan showing the complete expenditure of the project allocation of funds of each Institution by 15th August 2019, so that further allocation of funds may be requested for consideration. In view of this, the meeting of the TEQIP-III Coordinators was convened on 11th June 2019 at SPIU Office, Directorate of Technical Education, Bangalore and the following is the meeting actions: a) Presentation by the TEQIP-III Coordinators on the Action Plan, b) Discussion on implementation of Revised Action Plan and to set goals to achieve the target & c) Submission of Revised Action plan, with necessary corrections on the spot, targeting complete expenditure of the allocated, amount including procurement and academic activities, to NPIU & SPIU.

2. Twinning Programme activities

A good Mentor, in Twinning Arrangements, is a 'critical friend' to an institution. Someone who is committed to supporting both the needs of those institutions to which they have been assigned, as well as the needs of the TEQIP project overall. Mentors are principal project representatives and 'agents of change' who keep up to date with initiatives and developments related to the institution and the project as a whole. Mentors listen, understand, guide and advice - principally to support and assist institutions to stay focused on the goals and targets set by the institution in their Institutional Development Proposal and any institution strategic plan.

A good Mentor feeds back and explains to institutions what they find (good and bad practices) and bases their feedback on sound evidence. A good Mentor tries to leave an institution better than they found it. Some of the suggested activities under the scope of the project are, Improvement in Teaching, Learning and Research competence, Improve student learning, Student employability, Increasing faculty productivity and motivation. In total, establishing a twinning system between Mentor and Mentee Institutes for overall academic interaction between the institutions.

Few Aspects under twinning program shall include, Implementation of curricular reforms, Exercise academic, administrative, financial and managerial autonomies and accountabilities, Improve student performance and evaluation, obtaining accreditation of eligible undergraduate and postgraduate programs.

Details of Academic Activity	**Interaction with Director, Coordinator and TEQIP team**
Type of Academic Activity	Twinning Programme
Faculty / Staff	Prof. B B Tiwari & team
Date & Place	14th and 15th May 2019 at Mentor Institute PESCE, Mandya.

Proceedings of the meeting held on **"Interaction with Director, Coordinator and TEQIP team"** 14th to 15th May 2019 to discuss the twinning activities scheduled to be organized during the year 2019-20. Prof B B Tiwari, TEQIP Coordinator and Mrs. Jyoti P Singh Asst. Professor, UNSIT were presented in the meeting. The following members were also presented.

Minutes of the meeting:

Principal welcomed all the members and briefed about the meeting and asked the concerned heads of the department to give their consent to organize the twining programs at both the institutions during July/ Aug 2019. After lengthy discussions, the following programs were finalized to be organized by the faculty of PESCE. Both the coordinators were asked to proceed to carry out the programs as per the schedule. Dr. N L Murli Krishna thanked all the members for their suggestions and meeting concluded on a high note.

Details of Academic Activity	**Accounts, Tally and Preparation of Audit Reports for account staff working in SPIU and TEQIP-III Institutions**
Type of Academic Activity	Twinning Programme
Faculty / Staff	Manohar G Nayak Nodal officer SPIU Karnataka
Date & Place	21st May 2019, PESCE Mandya

"Finance Review Meeting and **Workshop on Accounts, Tally and Audit reports for account staff working in SPIU and TEQIP-III Institutions**" on 21st May 2019 was jointly organized by PESCE, Mandya and SPIU, Government of Karnataka. This workshop was funded by TEQIP-3 cell of our college. The TEQIP-3 teams and auditors of ten Engineering Institutions of Karnataka who are fund by World Bank participated in the workshop. The programme was also witnessed by print and broadcast media persons. After the inauguration, Chief Guest, Sri. Nanda Kumar Agnihotri, Senior Consultant (Finance) from NPIU delivered inaugural address mentioning about the importance and utility of the funding during TEQIP- I, II & III. He also pointed out about additional funding to the eligible institutions among the beneficiaries of TEQIP-III. Sri. Manohar G Nayak, Officer on Special Duty of SPIU, during his speech, expressed confidence about all TEQIP-III benefitted institutions of Karnataka will become eligible for additional funding. Dr. H.D.Chowdaiah, President, PET® during his presidential speech, mentioned that all the TEQIP benefitted institutions should perform very well, so that, they only be benefitted.

Further, he wished all the participating institutions to excel in this exercise. Then Inaugural function ended with vote of thanks. After the Inauguration, during pre-lunch session, the all the participating institutions representatives presented the TEQIP Finance status of their respective institutions to NPIU and SPIU officials. During the post-lunch session, Tally Expert Mr. Manohar Hazare presented about using the tool for financial activities along with NPIU, SPIU officials & participants interaction. Later Sri. Nanda Kumar Agnihotri, Senior Consultant (Finance) from NPIU talked about the dos and don'ts during the financial activity of TEQIP.

Details of Academic Activity	**Accounts, Tally and Preparation of Audit Reports for account staff working in SPIU and TEQIP-III Institutions**
Type of Academic Activity	Twinning Programme
Faculty / Staff	• Manohar G Nayak • Sri. Anantha Subbarao • Sri. A. Krishnamurthy Nodal Officers (Finance)
Date & Place	21st May 2019, PESCE Mandya

Visit of SPIU Team for Review of TEQIP-III Activities, Verification of procurement, academic activities and Achievement of targeted bench marks on 21st May 2019. This Verification was carried out by SPIU officials of Government of Karnataka, namely:
Sri. Manohar G Nayak, officer on Special Duty,
Sri. Anantha Subbarao & Sri. A. Krishnamurthy, Nodal Officers (Finance). The Verification was carried out as per the directions of NPIU, Government of India. The SPIU officials were accompanied by TEQIP team during verification.



The Physical verification of procurement equipment's and documents by means of stock ledgers was carried out at respective departments. The financial documents were also verified by the officials at TEQIP office and suggested few guidelines to follow. Principal thanked all the officials for their cooperation during the visit. The verification process concluded with good note.

Details of Academic Activity	**Performance Review meeting by SPIU UP**
Type of Academic Activity	Twinning Programme
Faculty / Staff	• Dr. N L Murali Krishna IP HoD & Deputy CoE • Ravi K Asst. Nodal Officer-Procurement
Date & Place	30th - 31st May 2019 Lucknow

Report on Two days Twinning Workshop-Establish Mechanism for Enabling Peer to Peer Learning and Knowledge Sharing (For 1.1, 1.2 & 1.3 Institutions) and Review Meeting held at Lucknow on 30th and 31st May 2019. The workshop mainly aimed at the twinning activities carried out till May 2019 and the plan of action for the next quarters.
The Objective of the workshop was: To meet the targets and benchmarks, a joint meet of 1.1, 1.2 and 1.3 Institutions scheduled to remove the bottleneck, if any, in order to implement the suggested activities in seamless and hasle-free manner. The World Bank/NPIU likely to establish a mechanism for enabling peer to peer learning and knowledge sharing between all TEQIP funded institutes. In this context, Two-day extensive Workshop & review meeting was organised by SPIU – UP at Lucknow. The issues discussed were: Twinning activities, Mentoring, NBA Accreditation, Performance Audit score, Learning and Knowledge sharing, sharing the best practices etc. The workshop was held at Auditorium, Hotel Revanta, Lucknow
On 30th morning, Mr Vineet Surana (Nodal Officer Procurement) welcomed the participants and the program was started by lighting the lamp. Opening address regarding the Workshop was done by Dr Anil Kumar, SPA, SPIU-UP. After the inauguration session, Prof Dr. D S Chauhan, Founder Vice- Chancellor UPTU, UTU, Mentor- IET Lucknow & PEC- Puducherry gave an Expert talk on Peer to Peer learning Methodology, in which he emphasized the need of peer learning for the improvement in education and society as well. Next talk was by Prof. Dr. Jai Prakash, Retd Professor Civil Engg, MNIT Allahabad, Mentor- IET Agra & FET DBCRUST Haryana, on Knowledge Sharing through peer to peer learning.
Afternoon session was dedicated to share the best practices adopted by the TEQIP institutions. All the 1.3 and 1.1 institutions shared some of the best practices including good governance and academic and nonacademic reforms.
The SPA- SPIU requested the participating institutions to send the details of the best practices to SPIU, so that they can implement them at the institutions across the state. Then some of the institutions were presented the review on twinning activities of both mentor and mentee institutions & twinning Scores obtained during the last year. SPIU request the participants to submit an action plan up to April 2020 in the prescribed format, after discussing among the coordinators the activities at both end. The SPA- SPIU requested the all participating institutions to carry out more effective activities rather than the numbers which can fetch good twinning scores. The review session scheduled to continue on next day due to time up. 31st May 2019, Review session continued till 1.30pm. the Prof. Dr. P M Khodke, CPA, NPIU addressed the participants through video conference and appreciated all the well performing institutions and suggested to speed up the activities as the time constrains and assured to provide more funds on completing the activities with in stipulated time.

Details of Academic Activity	**Mentee institute 2nd BOG meeting**
Type of Academic Activity	Twinning Programme
Faculty / Staff	• Dr. H V Ravindra Principal & TEQIP Director • B. Dinesh Prabhu TEQIP-Coordinator
Date & Place	30th and 31st May 2019 at Mentee Institute, UNSIET, Jaunpur, UP.

The 2nd BoG meeting under TEQIP-III of mentee institute held at UNSIET, VBSPU Jaunpur UP. Honorable members actively participated and expressed their views, which witnessed by VC of the university. Professor B B Tiwari, TEQIP-Coordinator presented about the progress and activities related to procurement and academics under TEQIP-III. After taking the note on the recent developments about the activities, presented by the Coordinator, members acknowledged the same and suggested to give more emphasis on training for the students about commutation and state of the art of technology. Further, elaborate discussions were also made about employability skill training and finishing school for placement of students in various platforms.



A Skill learning & training center was inaugurated on this occasion. The center is full equipped with the necessary equipment and facility. This facility could enable the students to upgrade their knowledge by undergoing skill training in different avenues.

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The Fifth Board of Governors Meeting was held on 15/06/2019 at our institute and Chairman, BOG was in the Chair. Dr. B B Tiwari and Dr. Rajanish Bhaskar were present at BoG meeting as representatives from the mentee institute (UNSIET, VBSPU, Jaunpur, UP). All the action taken report as per the Proceedings of previous BoG was presented in the meeting. Further, the various activates (complete and upcoming) of TEQIP were narrated at the meeting in length by TEQIP director and Principal Dr. H V Ravindra. Various aspects, pertaining to TEQIP and academic progress at mentor as well as at mentee institutions, were debated and necessary decisions were taken at the meeting.

Details of Academic Activity	**5th BOG meeting at PESCE**
Type of Academic Activity	Twinning Programme
Representatives from the mentee institute	• Dr. B B Tiwari • Dr. Rajanish Bhaskar
Date & Place	15th June 2019, PESCE Mandya

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Details of Academic Activity	**Accompanying TEQIP Mentor**
Type of Academic Activity	Twinning Programme
Faculty / Staff	B. Dinesh Prabhu TEQIP-Coordinator
Date & Place	22nd to 23rd June 2019, UNSIET Varanasi UP

A second Mentoring Visit to UNSIET, Jaunpur on 22nd to 23rd June 2019 by Mentor: Prof. Mukul Sutaone, College of Engineering, Pune was accompanied by Prof. B. Dinesh Prabhu, TEQIP Coordinator of PES College, Mandya, Karnataka. All activity heads under TEQIP-III, and the respective expenditure till date, along with performance progress, as per KPIs, was verified, In terms of documents and In-person visits. Activities related to majority of components of TEQIP-III, like: Procurement. Students'/Faculty programs and Twinning activates found satisfactory. Further, the mentor team felt that, few areas needed immediate attention for Improvement and performance at UNSIET Jaunpur they are, NPTEL/MOOC online courses Chapter, Industry representation in Boards of studies, encouraging for pursuing PhD program either In-house or with Mentor College, Collaborative R & D project proposals and PG (M .Tech) programs and Full Time PhD program needs to be established.



Details of Academic Activity	**Training on P Spice Simulation software**
Type of Academic Activity	Twinning Programme
Faculty / Staff	• Mr. K M Mahesh Kumar Asst. Proffers Dept. of E&E • Mr. C Chethan Asst. Proffers Dept. of E&E
Date & Place	2nd to 6th July 2019 UNSIET

As per Twinning program a one week training program on **"PSPICE Simulation SOFTWARE"** under TEQIP, Phase-III was held at UMA NATH SINGH INSTITUTE O F ENGINEERING & TECHNOLOGY, Jaunpur, Uttar Pradesh, from 2nd July to 6th July 2019. The workshop aims to provide learning opportunities to students of Electrical Engineering, Electronics & communication Engineering, Instrumentation & Electronics Technology Engineering branches of UNSIET to enrich their learning skill in the field of simulation software. The Programme also intends to develop the knowledge of participants for simulation with PSPICE software's in the field of analog Electronics, Electrical circuit analysis and Digital circuit simulations. The workshop is attended by more than 50 students from circuit branches.

About Veer Bahadur Singh Purvanchal University Purvanchal University, Jaunpur renamed as Veer Bahadur Singh Purvanchal University in the honour of late Shri Veer Bahadur Singh, former Chief Minister of the state, was established on 2nd October 1987 as an affiliating university under U.P. state university act 1973. Continuous qualitative and quantitative growth, excellence in academic and administrative activities, transparent and efficient academic administration have been some of the distinct characteristics on the basis of which the university emerged as one among the leading universities. Started with the 68 affiliated colleges, the university now has widened its spectrum of activities with 367 affiliated graduate and post-graduate colleges and student's enrollment of nearly three lacs and eighty thousand in 5 Districts of Eastern Uttar Pradesh.

Details of Academic Activity	**Faculty Development Program**
Type of Academic Activity	Twinning Programme
Faculty / Staff	Mr. Phalanethra Asst. Proffers Dept. of E&C
Date & Place	8th to 12th July 2019 UNSIET

Report on **"Faculty Development Program"** to Advances in Photonics and Communication on 8th to 12th July 2019 at Uma Nath Singh Institute of Technology, Jaunpur.

Introduced the audience to the world of fibre Optics and fibre Based Components. Definitions of basic terminologies, How a fibre is made? Principal of propagation of light through a fiber. This session mainly dealt with the wavelength of operation, Modes of fiber, wavelength dependent modes and how to explore opportunities in using the modes for multi carrier transmission. Professor mainly concentrated the importance of measurement and instrumentation errors involved in calculating parameters. It was mainly the accuracy, calibration and read-outs of the measured quantity was discussed. In this session, Optical metrology was introduced to the audience. How optics are used in measurements of certain parameters were discussed. How? Important is optics theory was addressed briefly in this session. How photonics are incorporated in compact circuits making way to optic computing in quantum level.

Finally to end the talk, passive devices were introduced and insights were given. Nan photonics at a Glance was the talk of the hour. Speaker started with a brief introduction to nano science and its integration with respect to optical communication field. Speaker introduced us to various effects of reducing the size of a structure to its Nano level. Speaker continued with the topic of Nano photonics. Professor explained about the process of preparing the silicon wafer for different optical devices of the level of nanotechnology. Finally to sum up, concluded with comparing different materials of Fab, and how silicon is cheap and easy to manufacture was emphasized.

The Topic for the hour was Photonic crystal & its Applications. The speaker started with Principal's and Application of Holography, where he discussed about the technique of holography. We were made to understand how a recording is made on a hologram and what are the different methods of hologram recording available was briefed. To continue with the next topic was Digital Holography and Dynamic Holography 3D displays was introduced. Here the future of 3D without glasses was discussed and how the aircraft cockpit's Heads UP Display were made using the same technology was explained.

Details of Academic Activity	**Collaborative Research activities**
Type of Academic Activity	Twinning Programme
Faculty / Staff	Organized under Twining Activities for Collaborative Research initiation. 10 1.3 institutions 1 ATU and 4 1.1. institutions were participated
Date & Place	19th to 20th August 2019 Organized by PESCE at Mysore

As advised by MHRD, AICTE invites the proposal for **"Collaborative Research Scheme"** from TEQIP faculty (NPIU empanelled) presently working in TEQIP-III institutions in focus states.

Objectives:

a) To provide incentive for young TEQIP faculty from different institutes to collaborate on research and build research community.
b) To support innovation & research across institutes with collaboration among TEQIP Faculty, Regular faculty of Project institutions (focus and non-focus) & Premier institutions of the country.
c) The scheme targets for 200 proposals in 1 year.

Implementation Mechanism

- Collaborative Research Grant Program shall be implemented by AICTE. Applications will be received by AICTE using an online portal
- The program will be declared by NPIU through email and SMS to TEQIP faculty as well as institutes. The announcement shall also be published on NPIU and AICTE website.

Expected Outcome

- Joint research project between institutions through young TEQIP faculty and develop bilateral relationships (academic & research) among TEQIP institutions.
- Promote knowledge transfer from well performing institute.
- Produce educational and research contents in the form of jointly authored publication, book chapters, research monographs, patents, demonstrable technologies and action-oriented research outcomes and product and dissemination in teaching in multiple institutions.
- The equipment procured under the scheme may be used for consultancy purpose by the host institution.
- The facilities created may be used by students for Lab work & Projects of B.Tech. / M.Tech./ PhD students.

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Details of Academic Activity	**Induction Program**
Type of Academic Activity	Twinning Programme
Faculty / Staff	• Mrs. Pooja Nagpal Asst. Proffers • Mrs. Suman Rajesh Asst. Proffers
Date & Place	3rd to 4th Sept. 2019, UNSIET

The **"Induction Program"** for B.E. Students at VBS Purvanchal University Jaunpur, UP. Was scheduled from 14th August to 7th September, 2019. As a part of this Induction Program we were invited to conduct sessions on soft skills on 3rd September and 4th September, 2019.

Soft skills for Mechanical Engineering students around 40 students were present for the session. The topics for the session was Ethics and Ethical Dilemma. This session was started by giving an introduction to what is Ethics-meaning, relevance and its importance in today's system. The session by dividing the students into four groups and briefing them up on ethical dilemma. Each group was given an ethical dilemma situations and asked to understand analyze and react to the given situation as to what was the best way to handle such situations. The groups were assisted order to understand, articulate and express their views on the given situation. The session concluded with a healthy discussion on how value systems have influence on situations giving whenever ethical dilemmas arises. On the same day we had another session for Computer Science and Information Technology Engineering students. Around 60 to 70 students were present for the session. The topic for the session was Personality its need and importance. Followed by a personality assessment test using Smalley Personality Inventory test and collage making activity at the end. The session was initiated by Mrs. Pooja Nagpal by briefly introducing the concept of personality its importance in today's student life. Then Mrs. Suman T D explained about personality test its relevance in knowing the personality type and how to bring out the best in one's personality. Further the students were divided in five groups and where asked to do collage on the theme sustainability.

We had a session of soft skill for Electrical and Electronic Engineering students around 40 members were present for the session. The topic for the session was team building followed by team building activities. Introduction on building a team and addressing the various challenges associated with team building and how to resolve them in order to build an effective team. On the same Mrs. Suman T D divided the students into teams and carried out various team building activities.
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3. Training Programme Workshop, STTP, FDP……

The Professional Skills and Technical Training Program is responsible for the design, development, and delivery of competency-based courses to meet critical skill development needs. In addition to conduction of Training Programme Workshop, STTP and FDP, the Professional Skills and Technical Training Program provide a variety of ancillary support to academic organizations. FDP cover areas such as technical education policy, new concepts, methods and techniques, theory and skills development and up gradation of pedagogy educational technology, motivation, communication skills, management and other relevant issues to keep pace with the changing scenario in Technical Education. Training Programs designed to enhance the teaching and other skills of the faculty, and to make them aware about modern teaching tools and methodologies. It provide an opportunity to acquire knowledge about current technological developments in relevant fields. It will not only promote the professional practices relevant to technical education but also motivates the faculty to achieve competitive teaching and learning environment, thus channelizing development with respect to academic qualifications and personal matters.

3 (a) Programmes Conducted for Teaching, Technical Faculty & Students

1. Workshop on 3D Structural Modelling:

Workshop is designed to give the students an overview of **"3D Structural Modelling"** using ARCHICAD-20 software which will aid in understanding the importance of the use of software tools in civil engineering, on 22nd & 23rd March-2019. There is a need to bridge the gap between the academia and industry to provide employment opportunities to the young engineers meeting the ever increasing skill needs of the industry. Construction features ARCHICAD 20: Store the Information: Information is the most valuable part of BIM and RCIIICAD 20 helps architects and· designers get the most of it! ARCITTCAD 20 allows users to utilize their Building Information Model as the central storage place for all related information. They can even easily store and maintain design information that was not created using CAD or BIM tools, like Excel-spreadsheets. Display the Information: ARCHICAD 20 leverages well-structured information resulting in informative design visualization, which ensures enormous efficiencies throughout design and construction. With the help of smart filters and brand new graphical override, designers can freely change the representation of any 2D and 3D views of elements with similar properties. Share the Information: ARCHICAD 20 is among the first BIM applications to fully support the IFC 4 open-source standard. IFC 4 supports new coordination workflows (Design Transfer View and Reference View) and provides great help when coordinating with other disciplines.

Graphical favourites: Brand new Graphical Favourites provide excellent visual feedback about saved element settings with automatica11y-generatcd, colored 2D or 30 thumbnail previews –available instantly for every Tool. This not only helps BIM managers in setting up and enforcing office project templates, but also speeds up everyday design development work. Renewed Graphical User Interface ARCHICAD 20 features a completely revamped graphical user interface, making it the most modem-looking BIM application available on the market today. The design language used on the renewed GUI gives ARCHICAD a look and feel much closer to mobile apps than to traditional desktop software, making it especially appealing to the younger generation.

2. Workshop on Plagiarism and Measuring of Scientific Productivity

Half day workshop on Workshop on **"Plagiarism and Measuring of Scientific Productivity"** was organized on 27th April 2019 at PESCE organized by PET Research Foundation in collaboration with Library and Information Center to enlighten the PG students and research scholars on concepts of plagiarism. The workshop witnessed 115 registrants, resource person Dr. C. P. Ramashesh has given clear information of Plagiarism and enlightened the audience on avoiding plagiarism with the help of Turnitin and Thenticate. Resource person also highlighted the benefits of reference management tools to avoid plagiarism in scholarly works. Demonstration Thenticate and Web of Science was made for the understanding of the participants. Kodandarama Librarian introduced the plagiarism policy of PESCE through the presentation to the audience and coordinated the workshop.

3. Basic Course on Embedded System using ARM7 & Embedded C

Three day workshop is conducted by **"Basic Course on Embedded System Using ARM7 and Embedded C"** technologies in order to familiarize at 25th 27th April 2019, of the Automobile Engineering students in the field of embedded systems. ARM Embedded Technologies Private Ltd. engages in the marketing, research, and development of RISC-based microprocessors and physical IP. ARM designs the technology that lays at the heart of advanced digital products, from wireless, networking and consumer entertainment solutions to imaging, automotive, security and storage devices.

This comprehensive workshop is a thorough introduction to the software development for ARM7 microcontroller. This workshop addresses targeting ARM7 architecture based devices, specifically the LPC series from NXP semiconductors l. The information gained can be applied to any embedded system design. This workshop combines insightful lectures with practical lab exercises to reinforce key concepts. You will also learn advanced coding techniques that will increase your overall Embedded C proficiency and enhance your microcontroller design concepts. In this three-day course, students gained valuable hands-on experience. After completing this workshop, students will be able to:

a) Target and optimize 32 bit microcontrollers by using Embedded C , b) Use internal peripherals of a microcontroller such as Timers, Interrupts and UART, c) Create and manage designs by using the Keil software design environment, d) Interface external peripherals such as motor driver, keypad, LCD etc

4. GATE Coaching (ECE students)

Report on **"Gate Training Program 2019"** held in Department of Electronics and Communication Engineering at 4th to 31st January 2019 Graduate Aptitude Test in Engineering (**GATE**) is an examination conducted jointly by the Indian Institute of Science (IISc), Bangalore and the seven Indian Institutes of Technology (at Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) on behalf of the National Coordination Board (NCB)-**GATE**, Department of Higher Education, Ministry of Human Resource Development (MHRD), and Government of India.

Qualifying in **GATE** is a mandatory requirement for seeking admission and/or financial assistance to (i) Master's programs and direct Doctoral programs in Engineering/Technology/Architecture and (ii) Doctoral programs in relevant branches of Science, in the institutions supported by the MHRD and other Government agencies. Even in some colleges and institutions, which admit students without MHRD scholarship/assistantship, the GATE qualification is mandatory. Further, many Public Sector Undertakings (PSUs) have been using the **GATE** score in their recruitment process.

The training course was organized by the department of Electronics and Communication Engineering, PESCE, Mandya between 4th Jan and 31st Jan 2019. This training was aimed to facilitate the students of electronics engineering to learn in the dimension of GATE Exam and enhance their knowledge with more experienced trainers. This course was made successful with a participation of 28 students from the department. The sessions of the GATE training were carried out by many well-known experienced GATE exam trainers from Bengaluru (as Specified Below). The students had very good exposure towards the preparations for GATE and other Public Sector Exams. Gate Training classes summary were handled by different trainees based on the domain which they are in. They were well qualified trainees. Within the shortest period of time they taught Analog and digital communication, control system, Digital Electronics, Electronics Devices, Engineering Mathematics and Analog electronic circuits. On the last day of the program students attended pre-gate test.

5. Institute level Joint BoS Meeting

Institute level Joint BoS Meeting and One day Symposium on Academic Education Reforms Meeting held on 27th July, 2019. All the BOS chairman's of various programs, subject experts, deans, deputy deans were present in the meeting along with our principal Dr H V Ravindra. This meeting gave a common platform for the representatives of various programs to present their views at this platform. All the common issues pertaining to course/curriculum, electives and its modalities were very well discussed and various issues were represented and addressed.

The regulations pertaining to vertical progression and about supplementary semester were conveyed and the same recommended for approval in the upcoming highest body meeting. The regulations were applicable for B.E. /M.Tech. /MCA/ MBA students seeking admission from 2018-19 batch onwards.

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6. Workshop on Android Application Development

"Android application development" workshop on 15th to 16th April 2019 is an intensive, results focused program aimed at helping learners to create applications using Google's Android open-source platform. The workshop explains what Android is and how it compares to other mobile environments, the setup of the Android Eclipse-based development tools, the Android SDK, all essential features, as well as the advanced capabilities and APIs such as background services, accelerometers, graphics, and GPS. The Android application development workshop completely involves the learners in the Android platform, allowing them to walk away fully ready to build Android applications. The workshop includes the absolute basics required to help learners to understand the very core of Android application development.

Objectives:

Upon completion of this workshop, the students will be able to:

- Understand how Android applications work, their life cycle, manifest, Intents etc.
- Understand the UI - components, layouts, event handling, and screen orientation.
- Develop a working knowledge of the custom UI elements and positioning.
- Design useful Android applications with compelling user interfaces by using, extending, and creating own layouts and Views using Menus and Use Android's communication APIs for SMS, network management, and internet resources (HTTP).

The workshop ended on a high note, with every student understanding the basics of android and having a fair knowledge of the architecture, applications, layouts, databases, use of internet in android and tips to design user friendly applications. The students got insights about how apps will disrupt the digital world, how can it be useful to them and how it will bring the change in industry.

7. Workshop on Artificial Intelligence

The Department of Computer Science and Engineering, PESCE, Mandya had organized a two days "**Hands – On Workshop on Artificial Intelligence**" on 15th to 16th April 2019. The Venue was successfully conducted at MBA Smart Class Room - 2. The workshop was intended for developing the application development skills on artificial intelligence. The perquisite for the participants for attending workshop is to have basic knowledge in python programming. About 57 students and 08 faculty members from the Department of Computer Science and Engineering attended the workshop.

Inaugural Event

After the inaugural sessions Dr. Joythi S Nayak and Dr. Indiramma continued with the Hands-On session at 10:30 am with a support of python programming language and discussed the following problems with the participants on 15th April, 2019.

- Introduction: a) Tik-toc-toe program. b) State-Space: 8-puzzle program
- Searching-Blind Search: a) Iterative deepening program b) Heuristic Search-AStar
- Knowledge Representation: a) Preposition Logic - Entailment program b) CNF conversion program
- First order Logic: Unification program
- Learning: a) Decision tree program b) Bayes and Sentiment analysis

Participants enjoyed using basic components and solved the above problems with the support of the resource persons successfully. In parallel, participants interacted with the resource persons and make the best utilization of the hands-on experience of Artificial Intelligence. The workshop ended on a high note, with every student understanding the basics of artificial intelligence and having a fair knowledge of solving AI problems. The participants got insights about how to solve AI problems, how can it be useful to them and how it will bring the change in industry.

8. Workshop on Web Application Development Using Node.js

Department of Information Science and Engineering conducted 3 day Workshop on **"Web Application Development using Node.js"** from April 15th to 17th April 2019 for 6th semester students of ISE. Cranes Software International Ltd was for the workshop. Objectives of the workshop are: a) Explore the basic concepts and fundamentals of HTML, CSS, b) Learn Java Script programming, c) Understand the characteristics and benefits of Node.js. Following topics were covered during the workshop: Tags, Validation, Embedded Content, videos, audio, canvas, Input Type, CSS Introduction and Basics, CSS Properties, CSS Design, Layout, Tables, Boot Strap 4. Node JS in windows, Example of Node js, Node js Console, Node Js REPL, Node Js NPM, Node Js TTY, Node JS Event, Node JS Process, Node JS Stream, Node JS File System, NodeJS Query, Node JS MySql, Node Js Web Modules. Outcomes of the Workshop: a) Students will be able to Use Java Script for making interactive web pages, b) Implement Node.js library - a platform that enables running JavaScript code outside the browser and allows the development of an end-to-end applications in JavaScript.

9. Technical Fest - SPARK

The event **"Technical Fest SPARK"** was conducted on 30th to 31st March PESCE Mandya, by the clubs TSTE Student Chapter and Youth Red Cross in collaboration with the E-mpact, E-cell, PESCE, and Mandya. The event was sponsored by TEOTP. The chief guest of the event was Dr. Ajay Kumi1r BK, who is an active member of bharath Scouts and also runs 3-4 NGOs in Mysore. He enlightened the youngsters with his excellent speech by telling the importance of hard work in the competitive world and how to tackle the situations faced in life. It was a state level socio entrepreneurial fest which consisted of the following programmes:

a) Quiz Competition, b) Ad-Wars, c) What Went Wrong, d) Poster Designing, e) Online Photography Contest and e) HAM Radio Workshop.

The fest had a positive response, students from our college and various other colleges took part and made the event a grand success. Around 150 students from our college and various college were the beneficiaries of the event. The HAM Radio Workshop was conducted by Mr. MT Kesari, Managing Director, Power gate Technologies Pvt. Ltd. The workshop was fruitful and students were exposed to the working and usage of ametuar radio effectively. The event concluded on 31-03-2019 in the presence of Dr. R.S Shivakumar and Mohammed Adnan Khan. All the winners were awarded with cash prizes and certificates during the same.

10. Motivational Talk for Situation Management

Event of Motivational Talk for "Situation Management" organized by Dept. of Mechanical Engineering PESCE Mandya on 26th April 2019. The aim of the talk was to impart a skill of contingency management in the industries and handling the challenging tasks. With the view of different kinds of situations the resource persons from different field were invited. The resource person is alumni of the department for the year 2015-16. Mr Thejasvi U P stood 366th rank in UPSC examinations for the year 2018-19. He explained the students about the consequences to be faced while attending the examinations and preparation for the personal interview and how answer are expected from the candidate by the interviewing body. He motivated the students about the opportunities and challenges to be faced in preparation to the civil service examinations.

Kamalamma is a farmer who awarded "PADMASHREE" award from the Govt of India and awarded as PRGRESSIVE farmer by the University of Agricultural Sciences, GKVK, and Bengaluru with very small area of land. She was invited with the view of imparting the knowledge of money management. Being a challenging field of agriculture in the view of profit making, M/s Kamalamma is making a profit of Rs 4Lakhs per year with a small area of one acre. She explained how the financial consequences are to be handled and the how to overcome the economic crisis in the agricultural industry. Mr Ravi is working as Captain (NAYAK) in Indian Army. He is working in Leh, J&K state. He invited with the view of motivating the students about techniques used in army to handle the critical situations in the war time and off war time. He explained beautifully about sequencing and scheduling techniques used in Indian army which gave depth knowledge in situation handling in industries. His correlating method was highly applauded by the students.

11. Second Mentor Visit

Meeting with **"Second Mentor Visit"** in our College at 10th to 12th May 2019, and PESCE Mandya. Strengths: a) Effective utilisation of TEQIP allocated funds for establishing, modernizing, upgrading and refurbishing the laboratory infrastructure, b) Effective utilisation of TEQIP allocated funds for faculty/staff development and empowerment, c) Well maintained and very clean/green campus, creating conducive ambience for teaching-learning, d) All documentation and records related to TEQIP activities are maintained to the utmost level of fulfilment. Appreciable knowledge of TEQIP-III, its objectives and mandates among stakeholders, e) Committed and capable senior faculty, gelling well with young teachers, good senior leadership team who are open for academic and administrative reforms, proactive management and dedicated/passionate management leaders, open for governance reforms, f) Aggressive planning and effective execution of twinning activities with UNIET of Purvanchal University, g) Governance and Administrative structures being practiced as per TEQIP guidelines, such as Governing bodies. Boards of Studies etc. with their meetings with prescribed frequency, all minutes of meetings are maintained and h) A good number of sponsored R & D projects in the name of senior faculty. Comments on Performance audit report: 1) Score on many parameters is satisfactory, but further improvement is expected typically on GATE and Soft skill/ employability training for students to put the Institute as one of the top performing institute among TEQIP institutions. 2) Action planning and execution for Twining activities with mentee institution and periodical review by the TEQIP co-ordinator's, Director' and Management levels is worth appreciable.

12. Innovative Technical Projects Exhibition -2019

An **"Innovative Technical Projects Exhibition - 2019"** has been organized on 13th and 14th June 2019 at Dr.H.D.Chowdaiah Auditorium and IC Engines Lab, P.E.S. College of Engineering, Mandya. The exhibition was held under the leadership of Principal Dr. H.V. Ravindra and coordinated by Dean (Industry Institute Interaction) Dr. B.S. Shivakumara and his team. The objectives of the exhibition were:

- To provide the platform and unleash the potential of the students by showcasing their innovative projects
- To provide an opportunity for the students to demonstrate their learning experience
- To motivate and kindle the innovativeness among other Staff/students/visitors
- To encourage the activities of R&D

Dr. H.D.Chowdaiah, Chairman P.E.T ®, Mandya has inaugurated the exhibition. Treasurer Sri.M.B. Bore gowda, GC Members Sri Chandra Mohan and Sri Shiva Prasad, Chairman BOG Dr.Ramalingaiah, Principal Dr.H.V Ravindra, Dean(I.I.I) Dr.B.S Shivakumara and Coordinator TEQIP Prof. B Dinesh Prabhu were graced the occasion. Several students, Faculty and visitors were participated in the exhibition.

53 innovative Projects in the areas of Electronics and Communication Engg, Electrical and Electronics Engg, Computer Science and Engg., Civil Engg, Industrial and Production Engg, Mechanical Engg, Information Science and Engg., Automobile Engg and MCA were exhibited. This Exhibition is funded by TEQIP-Phase III. Dr. S.L Ajit Prasad, Dr.Devdatt, Prof, S.K Uma and Dr.Punith were served as judges of the exhibition. 31 projects were selected for I/II/and III places in each department (UG/PG).

Dr. D.K. Subramanian, Retired Professor of Indian Institute of Science, Bangalore, Member, Board of Governors and Technical expert has visited the "Innovative Technical Projects Exhibition – 2019" on Saturday, 15th June 2019 and selected worthy Innovative projects for the financial assistance of the TEQIP phase-3 and appreciated the organization of the exhibition. He was accompanied by the Principal Dr.H.V.Ravindra, Chairman, and Board of Governors Dr.Ramalingaiah, Dean (I.I.I), Dr.B.S.Shivakumara and TEQIP Coordinator Sri Dinesh Prabhu. The outcomes of the exhibition are as follows:

- Boost up in morality and confidence of the participants
- Learning experience of the students gears up momentum for future professional career
- Development of scientific thinking among students/visitors & Acceleration to the activities of R&D

The exhibition motivated the students/Faculty to think in terms of getting the patents for their projects. The exhibition attracted several media persons and it was well covered in Newspaper and TV Channel. It has created the scene of festival in the college campus.

13. Pedagogy Training

Industrial visit on **"Pedagogy Training"** of PES Faculty at IIT Madras on 1st to 5th July 2019. Writing Learning Outcomes: Active verbs that describe the desired result at the end Try to avoid using action verbs that cannot be measured (know, become aware of, appreciate, learn, understand, become familiar with) Statements describing what you expect students to know and or be able to do as a result of completing a particular degree or certificate program (or just a series of courses in some instances)

- An understanding of their personal responsibility in creating their own academic, personal, and professional successes and Exam, Reflection paper & Student Debates.
- An awareness of how to utilize the necessary information, resources, and options available for them to make sound educational and lifelong decisions.
- An understanding of what they need to do to achieve their desired goals.
- Pair sharing & Collaborative Learning and Written analysis & Speeches (formal and informal)

Benefits and drawbacks of online learning whether you're a high-school teacher looking to engage your students in a more interactive way, or a corporate trainer hired by a large company to design training curricula, e-learning packs a punch when it comes to benefits that make the creation and delivery processes easier and hassle-free. Important benefits are outlined below: No Boundaries, No Restrictions Along with location restrictions, time is one of the issues that learners and teachers both have to face in learning. In the case of face-to-face learning, the location limits attendance to a group of learners who have the ability to participate in the area, and in the case of time, it limits the crowd to those who can attend at a specific time. E-learning, on the other hand, facilitates learning without having to organize when and where everyone who is interested in a course can be present. More Fun Designing a course in a way that makes it interactive and fun through the use of multimedia or the more recently developed methods of gasification (further discussed in later chapters) enhances not only your engagement factor, but also the relative lifetime of the course material in question.

14. FDP on Recent Advances in VLSI Design and Hands-on training with CADENCE tool

One Week Faculty Development Program On **"Recent Advances in VLSI Design and Hands-On with CADENCE Tools"** on 15th to 19th July 2019 at PESCE Mandya.

1. Silicon MOSFETs to GaN HEMTs and MEMS: In this session Dr Bhat enlightened the gathering with information of semiconductor, MOSFET, High Speed devices, Heterojunction, HEMT, Energy band gap of different semiconductors.
2. Architecting Low Power High Performance WLAN SoC- An Experience: In the session Dr Veena provided information regarding the WLAN, wireless highways, IEEE standard for WLAN 802.11 with different wireless protocol was covered in the session, OSI layer model. MAC Architecture, Design Decisions and at the performance validation and evaluation was addressed.
3. Functional Verification for Complex Designs: In this session Srinivas Reddy covered mainly on the verification part of VLSI design with design flow. Firstly provided information regarding functional verification and its different type, also covered why? How? its required. Skills required to be a verification engineer. Also, why industry is seeking verification. Clearly mentioned different IEEE standards available for Verification along with scope of research area in VLSI and functional verification domain.
4. Hands On session using Cadence Tool along with device cartelization for along model parameters.
5. Hands on session with explanation of how to design a common Source amplifier. Rest of session followed the design of the same with resistive load and constant current source.
6. Common Source amplifier with PMOS load. Speaker had given assignment to design for given specification.

15. Socio- technical workshop cum event - OSM Mapathon

GLUG-PESCE started its venture of the year with a fun filled socio-technical workshop cum event **"OSM Mapathon"** on Sep 7th 2019. Event was conducted on the occasion of Software Freedom Week and contribution to free and open source.

Started with orientation on OSM and started the on-field journey of mapping running across different locations in Mandya. A total of 13 teams consisting of two members, went on ground where among them 9 went and mapped by walk, 4 went by two wheeler to map these regions. Railway Station, MIMS College, Factory Circle, VV Road, Chamundeshwari Nagar, Hosahalli Road, Subhash Naga and surroundings. The session started with a small talk by Nidhi KS on Software Freedom day. Vignesh a Volunteer from FSMK talked about OSM And+ and OSM Tracker. And it was continued by Ruchika who dealt installation of the same. Proper instructions on route map and mapping regions and what to map and all was delivered by: a) Srravya a Volunteer from OSM Community and b) VoidSpaceXYZ a Volunteer from FSMK. In the session, VoidSpaceXYZ started with the importance of cleaning data and uploading them sravya suggested to write a dairy on OSM website about their experience while mapping and importance of OSM and why OSM, how to give back.

16. Inauguration of "Navinya", a compilation volume of innovative project works, Startup products by Bio Fuel center and Interaction with TEQIP team

On the auspicious occasion of 92nd Birthday (25/09/2019) of our honorable president Dr. H D Chowdaiah, Release of the "**Nisarga" Startup products** by Bio Fuel center of our institution and "**Navinya",** a compilation volume of innovative project works of UG and PG held.

The Startup products by Bio Fuel center of our institution is a unique attempt and first of its kind. About 18 products were released on this occasion. The audience and participants appreciated this attempt.

The program was witnessed by honorable deputy chief minister of Karnataka and also the Minister of Higher Education, Medical Education, Information Technology & Biotechnology and Science & Technology in the Government of Karnataka, **Dr. C. N. Ashwath Naraya**n and honorable Member of Parliament of India, **Sri. V. Srinivas Prasad.**

Further an academic/ twinning interaction meeting held with TEQIP officials of UNSIET, VBSPU, Jaunpur, UP. All the upcoming, planed and proposed activities were discussed in length in the meeting.

17. FDP on Recent Advancement in Renewable Energy Technology

The one week Multi-Disciplinary Faculty Development Program on, **"Recent Advancement in Renewable Energy Technology",** is being conducted to 22nd to 26th July 2019. This program is sponsored by TEQIP-3 and Organized by Department of Electrical and Electronics Engineering, PESCE, Mandya, in Association with Electrical Engineering Department, UNSIET, VBSP University, Jaunpur (UP). Due to depletion of conventional energy resources, increased load demand and environmental concerns paved the way for the entry of alternative/nonconventional -Renewable Energy sources. So, Renewable Energy is now rapidly becoming a preferred main stream energy source. A powerful combination of enabling trends and demand trends evident in many developing and developed nations globally is helping solar and wind compete in par with conventional source and win. Renewables are best able to meet demand for reliable, affordable and environmentally responsible energy. Renewable have not been as difficult or costly to integrate as anticipated. Technical innovations, cost effectiveness and increasing consumer demands driving renewable - particularly wind and solar - to be preferred energy sources. This is a multi-disciplinary (BE in Electrical, Mechanical, Civil, Industrial Production, Automobile) one week faculty development program and is expected to help the teaching faculty, students and research scholars of our college and various other engineering colleges/industry personnel to update/enrich their knowledge in the area of "Recent Advancement in Renewable Energy Systems".

About SIXTY (60) participants were registered for this FDP program: from other states (Andra Pradesh, Telangana, Purvanchal, etc.), from various other districts of our state (Bellary, Mysore, Bangalore, etc.) and many from our own institute as internal participants, including final year students.

18. Induction Programme

First year students 10 Days Workshop on **"Induction Programme"** at 14th to 24th August 2019 on PESCE Mandya. Induction Program is designed to make the newly admitted undergraduate students feel comfortable in their new surroundings, to expand their vision, and to prepare them for the new stage in their life. It is run for three weeks, during which there are no regular classes. Activities are conducted during this time to assimilate the new students in the culture and ethos of the institution, open them up in thought, set a healthy daily routine, create bonds in the batch as well as with faculty, develop awareness sensitivity and understanding of the self, the people around them, the society at large, and nature. AICTE/ MHRD has recommended a 3-week Induction Program for newly admitted UG students, compulsory for all technical colleges in a phased manner in the country. Since the Program has to be conducted by faculty members of the institution, a five to seven days Faculty Development Program for Student Induction are being organized in different parts of the country. Faculty Development Program for Student Induction is organized by 'Induction Program Outreach Cell (IPOC)' with support from AICTE regional office. Several state Cells have been opened. Each Cell is run by their respective Coordinators. IIT (BHU) is playing a national coordinating role.

1) Aim of Engineering Education: Technical Institutions were established to be working at the cutting edge of technology and contributing to the frontiers of knowledge. They are expected to generate pool of graduates with new technologies in their respective discipline/branch have a holistic personality and must have desire to serve society and nation.
2) Present Status of Engineering Education: There is a mad rush for the Technical Education today, without the student determining for himself or herself interests and goals, which is a major factor in the current state of de-motivation towards studies that exists among Under Graduate Students.
3) Need of Change in Engineering Education: Considering the various social backgrounds and whether a student comes from the urban or rural areas they differ in many of the life skills and their abilities and thinking. There branch of admission may be due to rush; their interest in subject is question. They are facing the issues like hostel and settlements, pressures from peers and many related issues.
4) Activities of Induction Program: When new students enter an institution, they come with diverse backgrounds, thoughts and preparations. It is very important to help them adjust to the new environment. The following are the activities of induction program in which the students would be fully engaged throughout the day for entire duration of the program: a) Physical Activity, b) Creative Arts, c) Universal Human Values, d) Proficiency Modules, e) Lectures by Eminent peoples, f) Literary Activities, g) Familiarization to Department/Branch and h) Innovations & Best Practices.

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19. Workshop on CATIA

One Week students Workshop on "CATIA" at 28th July to 3rd August, 2019 for 5 days each, organized by dept. of Mechanical and Industrial & Production Engineering on PESCE Mandya. An expertise training on Solid Modeling using CATIA -V6 from Mr. Praveen Kumar, M/s Qualvo Technology, Bengaluru, given to the 7th semester students of Totally 54 students benefitted by this training program and received the Certificates. Training on usage of the menus and parametric modeling using simple models was given.

Solid modeling is the state of the art technology in manufacturing fields in particular, mechanical and automobile industries. Solid modeling tools give an insight into key factors of quality and performance early in the product development phase. Digital prototyping, combined with digital analysis and simulation, allows product development teams to virtually create and analyze a mechanical product in its operating environment. CATIA Engineering solutions enable the creation of any type of 3D assemblies for practically all mechanical engineering processes. They address the specific requirements of a wide range of industries and processes, covering for example cast and forged parts, plastic injection and molding operations, composites part design and manufacturing, sheet metal parts design and advanced fastening operations.

CATIA training course introduces the user to CATIA V5 and V6, one of the world's leading parametric solid modeling packages. This course emphasizes on the solid modeling techniques that enhance the productivity and efficiency of the user. This course is structured in a pedagogical sequence, covering the Part, Assembly, Drafting, Wireframe & Surfaces and Generative Sheetmetal Design. Every session provided with detailed explanation of the commands and tools in CATIA V6.
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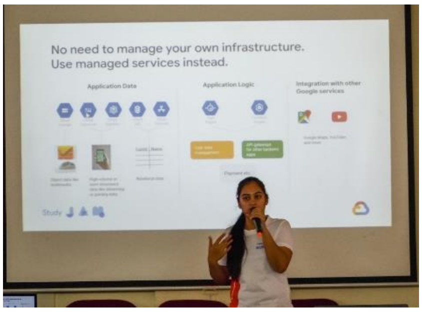
20. Workshop on Google Cloud Career Readiness Faculty Event



One day Workshop on "Google Cloud Career Readiness Faculty Event" at 2nd August, 2019, organized by dept. of Computer Science and Engineering of Notes from the Faculty Activity Google Bangalore. Participating faculty were split into 9 groups of 6 each. All groups were given 3 prompts/questions to deliberate for 10 minutes and a group member was asked to share the ideas with everybody. Here is the summary of the ideas and talking points that emerged out of the 60 minute activity.

1. **What are some ideas to bring Google Cloud skills to your students?**
   a) Create clear job outcome. Example: get internship opportunity to CR alumni,
   b) Google should give projects based on GCP for students to gain hands-on experience,
   c) A la AWS, create a dashboard/noticeboard of job opportunities in the cloud world and make it accessible to students/ colleges,
   d) Colleges can offer an open elective on GCP across engineering streams (and not restrict to just CS/IT students) and Google should provide problem statements which students can solve and Google can reward/recognize such projects
2. **As faculty, how can you equip yourself to teach Google Cloud and get your students Cloud ready?**
   a) Faculty need to concentrate on hands-on training and Faculty should get certified faster
   b) Scope for faculty to take up research with GCP projects.
   c) Faculty should ask: how can I equip myself. Devote ½ day every week to learning GCP. Ask students to join you in the lab when you are learning. Peer learning.
   d) Faculty should experience it first and then share it with students. We need slide decks to teach GCP in classrooms (similar to Android Developer Fundamentals)

Students deeply care about attendance and marks. Wherever there is flexibility in the curriculum, try to tie learning to by either offering marks or attendance to students.

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21. ISHRAE students Chapter

Installation ceremony of new committee for ISHRAE student chapter at P. E. S. College of Engineering, Mandya for the academic year 2019-20 was held on 26th September 2019, 02:30 PM at Mechanical Department Seminar Hall (CRC - Complex).Chief Guest Sri. A. Ramesh, Program chair, ISHRAE Mysore Chapter, Sri T. A. Prabhakar, President, ISHRAE Mysore Chapter, Sri Anil Kumar Nadiger, Secretary, ISHRAE, Mysore Chapter & Director, Rachana Ener Care, Mysuru, Smt. Sujatha. H. M, President Elect, ISHRAE Mysore Chapter, Smt. Aruna Devi, Women Chair, ISHRAE Mysore Chapter, Dr. S. A. Mohan Krishna, Students Activities Chair, ISHRAE, Mysore Chapter, Sri. Pavan K N, Secretary, ISHRAE, Mysore chapter & Dr. V. R. Devadath, HOD, Mechanical Engineering & Other ISHRAE Members, PESCE Faculties, Students Members were present for the Inaugural function.

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22. Zonal championship (IIT Madras Event) on Machine Learning

"Zonal championship for Students (IIT Event) on Machine Learning". The first and the most awaited workshop of the academic year 2019-2020 from Department of Computer Science and Engineering on Machine Learning got a magnificent beginning on 13th of September in the presence of dignitaries.

The introduction to Machine learning, Artificial Intelligence, Business Analytics and other related topics by the mentor, Mr.Kanchan Bhowmik. The mentor was well prepared with PPT for the participants to understand and visualize the concepts taught. He first explained the procedure to download Anaconda, a software to run Python programs and guided with steps to install Jupyter Notebook in it. He then demonstrated the working of "numpy", a package in Python for working with numbers and various functions that could be performed by using it. Demonstration on "matplotlib" library and its working which included plotting of different types of graphs to visualize data. Numerical operations on data and visualization of data were completed. Session started where the mentor took participants on a tour of live project which gave survival prediction on the "Titanic" data. He guided the participants with the steps followed in project as well as showing them the results lively on screen. This helped participants understand better the working of every element of the project. The winners were announced and selected to compete next levels in IIT Madras.

23. Workshop on Project Based Learning

The department of Electronics and Communication Engineering, PESCE, Mandya had organized two days' workshop on **"Project Based Learning"** for 3rd semester students from 09th to 14th September 2019. Objectives:

- Students will learn proper use of Electronics Equipment's.
- Students will learn Principles of Electronic Circuit Design and Analysis
- Students are able to solder and de-solder components on bare board.
- With this knowledge, students are able to design and build circuits for mini project.

Mr. Raghavendra started his presentation with a brief introduction to basic components used in electronics such as resistors, capacitors, inductors and so on. He elaborates the discussion on the topic with different types of resistors that is Carbon resistor, Wire wound resistor and Potentiometer. Different types of Inductor Air core inductor, Iron core Inductor and laminated core inductor. Different types of capacitors, Parallel plate capacitor, Ceramic Capacitor (Dielectric capacitor and electrolyte capacitor). Later speaker discusses about the analog and digital systems, advantages of digital system over analog systems after that talk about the active components and elaborate the discussion with detail explanation of transistor working with characteristics. Discuss the components required to build the metal sensor circuit they are relay switch, transformer and its types that is step up and step down. Outcome achieved: a) Students were provided a platform to enhance their skills in circuit design, b) Students discussed concepts of basic electronics and demonstrated it using circuit rig up and c) Students understood importance of fundamentals of electronics.

24. Awareness Program on High Voltage Insulation Laboratory

One-Day on "High Voltage Insulation Laboratory" was organized by Department of Electrical and Electronics Engineering on 17th August, 2019, PES College of Engineering, Mandya

The workshop was formally inaugurated with the invocation and lighting of lamp by the Dignitaries. Welcome speech was delivered by Dr P S Puttaswamy and highlighted about Department and program. The key note address was delivered by Chief Guest Sri M N Murulesh, who gave useful information about Government facilities and various schemes available for Small & Medium scale industries. He also enlightened about KCTU fundings to industries. Dr B Ramachandra, Professor and project Co-ordinator for Establishment of High Voltage Insulation Laboratory gave presentation on the various equipments installed, its applications and also advised the Industries to make best use of the High-tech infrastructure of the established new Laboratory. The inaugural function was concluded with the vote of thanks.

The participants visited the High voltage Insulation laboratory and got exposure to the latest equipments for better understanding of the latest technology in power sector for testing and R&D activities.

Participated Organisations: a) District Industries centre & District Skill Development Office,
b) KPTCL, Mandya division, c) CHESCOM, Mandya Division, d) Welpson Corporation Limited,
e) Mysugar company Limited, f) Atria Power Corporation Limited, g) S S Panel, h) MVSS, Garudana ukkada, i) MVSS, VC Farm, j) S. M Enterprises, Mandya, k) Prasura Enterprises, l) Vajra Technologies, m) Raj Electricals, n) M-Tech Electronics and o) Schneider Electric southern

Division outcome: All the sessions were very much informative. The discussed areas are of great benefit for the participants as the topics High voltage insulation match with the current working domain of electrical industries. Participants were enlightened with the Hi-tech infrastructure of the laboratory. This in turn will help in research activity.

25. 2nd Round Performance Auditing

A Meeting of the **"2nd Round Performance Auditing"** was held during 01st to 3rd Sept. 2019 at our college of the PESCE Mandya. Professor R. L. Shrivastava thoroughly audited all the documents and evidences pertaining to TEQIP-III activities.

MONITORING AND PROJECT OUTPUT/OUTCOMEPARAMENTERS were assessed based on the components/parameters like: Effectiveness of funds utilized for the teaching, training, learning and research equipment, library, computers, etc. by Institutions, Improvement in Teaching, Learning and Research competence of affiliated institutions, Implementation of AICTE mandate, Increasing faculty productivity and motivation, Effectiveness of equity at Institutional level, Improved system efficiency and Twinning Activities. The grade for each parameter was calculated based on the average of all sub-parameters. The total Score achieved by our institutions as per the auditing by Performance Auditor is 1.38 which is well within the acceptable limit of 1.5.

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26. Expert Talk on Project Proposal for Different Funding Agencies

One day Expert Talk on **"Project Proposals for Different Funding Agencies"** for Research Center at 20th Sept. 2019. The talk began with the introduction to-

a) Formulate Science, Technology, Innovation Policy and other enabling Policies for promotion of R&D.
b) Strengthen Basic Research and Expand R&D base - Human Capacity,
c) Strengthen Basic Research and Expand R&D base - Institutional Capacity,
d) Implement Technology Development Programs
e) Societal Intervention for Application of S&T & S&T Co-operation/Partnerships & Alliances.

The outcome of the lecturer makes the research scholars and supervisor to know about Different funding agencies such as

- SERB/DST supports scientific research·-only agency which considers all disciplines.
- SERB/DST has scheme for everyone (X+ to retired scientist)
- Major schemes of importance to researcher:
- Extramural Research Support to individual researcher, Start-up grant to Young
- Scientist, FIST, Women Scientist Program. Intl Travel support, etc.
- SERB/DST funding helped to augment research capability and undertake frontier research
- The peer review system of SERB/DST is well recognized by the S&T community.

The one day Expert talk was completed successfully.

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27. Vidhya Peeta-2019 Bangalore Biggest Education Event

A mass Awareness programme **"Vidhya Peeta-2019 Bangalore Biggest Education Event" for** students who are seeking admission to professional courses was arranged by Public TV at Palace grounds, Bangalore from 10th to 12th May 2019.

Professional colleges across the state have participated in the above programme. Stalls were allotted for each college to exhibit on rent basis to project their infrastructure details through PPT presentation. Large number or students and their parents are attended the programme. The day one was commenced with allotment of stalls followed by the formal inauguration of the event. About 140+ enquiries were received from students and parents on that day and about 42 candidates have registered with our college for pursuing Engineering education during the year 2019-20.

On day two, between 9.00 am to 10.00 am previous day's analysis was done with our college team. At I 0.00 am, Public TV chief visited our stall and analyzed our infrastructure. Between 10.30 am to 6.00 pm. Counselling for students and parents was done and continuous PPT presentation about our college enlightening the achievements for the previous 3 years was projected on the TV. The total no. of enquiries received on that day was 300+ and about 81 students registered their name with our college.

On day 3, Vice-Chancellors and Chancellors of various Universities visited the exhibition and oral feedback was taken by them during their visit. Between I 0.00 a.m. to 4.30 p.m. Public TV analyzed with our positive counts of previous 2 days. On that day a total no. of 200+ enquiries were received from students and parents. There was a great response from the student's community for our college in the event and about 46 candidates positively registered their admissions to our college. All over, 168 registered their names in the ledger books maintained by us totally the event was a great success and we could able to convince the students and parents the facilities available in our college for good quality education and got wide publicity all over the state.

28. Workshop on MATLAB 2019

Two Days Workshop on **"Learning MATLAB 2019a tool for DSP and Machine learning applications"** at 18th to 19th Sept. 2019, for Dept. of Electronics & Communication Engg., PESCE Mandya. The first day of workshop began with the introduction to CoreEL and Math work and understanding Math work product, the introduction to the MATLAB 2019a and the new features and modification in this software was explained. The MATLAB software documentation along with features of MATLAB toolboxes was taught to the students. Was provided and the session was resumed by teaching the MTALAB programming basics such as data addressing, language fundamentals, operators, functions and system objects, then the students were given a hands on session to write the program on matrix arithmetic, import and export data and MTALAB scripting.

The second session included the teaching of Model based design using Simulink. The introduction to mathematical and physical modelling was taught along with the overview of the Simulink block library. The Dampler spring model was designed and implementation of mathematical equations in Simulink. Later, the design and implementation of Solar cell modelling and array in Simulink and comparing the results was done. Introduction to Machine Learning for computer vision application using MATLAB was taught and we were able to do the hands on projects such as image processing apps for pre-processing, train and compare classifiers using classification learner App as well as the feature extraction and machine learning for image processing.After the short tea break, the session continued with the Deep learning using MATLAB concept, CNN architecture, modifying network layers, training the network was taught. After learning the concept students were given 2 hands on projects to be done, which included the real time image classification using deep learning and real time face detection, object classification and image and video capturing.

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29. Workshop on Python Programming

The department of electronic and communication Engineering, PESCE Mandya had organized three days workshop on "**Python programming"** conducted by Cranes Varsity, Bangalore which was held on 20th to 22th of September 2019. A total of 90 students were equally divided into two batches (1 and 2). Batch-1 workshop was held in Self-learning laboratory and Batch-2 workshop was held in embedded laboratory. Firstly, the trainer brushed the basic topics related to computer programming and compared C, C++, Java, Python and C#. A presentation on introduction to python was given which clearly bullet pointed the features and uses of python, and why it is powerful language than Java. Secondly, the trainer helped the students to install Python 3.7.4 in their respective laptops and computers. The input and output functions (input () and print ()) functions were explained. The basic mathematical operations were executed in IDLE. Thirdly, the data types & types of operators were explained elaborately. Few programs were executed (e.g. total amount including discount, area of a circle). At last, the control flow statements were explained. The class ended after explaining if-statement. Programs on whether a number is positive and few examples were executed in the Lab. Few problems were assigned for homework.

The if-else and else-if control flow statements were explained with few examples and the student were given few problem statements to solve. While and for statements were explained. Later strings were introduced in class. Major functions and manipulations were on strings were taught. Few programs like replacing letters and slicing were done. Prime number program was executed. Functions were introduced in the afternoon. Students were instructed to write all the above executed programs by using functions. Functionality of break and continue was explained with few examples. Few homework problems were assigned to students. List, tuple, dictionary and set were taught. Many important functions like related to each data type were explained. Programs using these functions were executed. Two to three hacker-rank problem statements were explained. The workshop was called off after discussing few functions from pandas and numpy. Conclusion: The trainers effectively taught python programming for students. The sessions was very interactive, at the end of this workshop students were able to write programs by using Python.


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30. FDP on Processing and application of composite materials (PACM)

One week programme has been conducted for the staff members of the various colleges from 30-09-2019 to 5-10-2019 on **"Processing and Application of Composite Materials [PACM]"** under TEQIP – III (Twinning Activity) at organized by dept. of Industrial Production Engineering. The Objectives and Outcomes of the programmes are as follows.

Objectives of the Program:

- To give the better exposure on the Processing and applications of composites.
- To provide the knowledge about metallurgical characteristics, Processing and mechanical characteristics.
- To impart the knowledge about Nano-particle reinforced metal matrix composites (strengthening mechanisms, effect of nano particles on physical and mechanical properties, processing methods and applications).
- To generate and impart knowledge on Applications of composites and Nano-composites.

Outcomes of the Programme:

- To create awareness about the current research in Composite materials.
- To highlight the importance of metallurgical, Processing and mechanical characteristics.
- To familiarize the participants with the latest manufacturing techniques of Composites.
- To impart the knowledge of Nano-particles reinforced MMC's and Nano tubes.
- To impart the knowledge on Processing and applications of composites.

Various eminent resource persons from Industries and neighbor Institutions were delivered the lectures as per the schedule which helped our participants in enhancing their knowledge in the area of different types of Composites materials. The processing and applications various composites used in the Aerospace, Aeronautical and Automobile industries. As a part of FDP, Industrial visit to M/s Government Tool Room and Training Centre (GT&TC), Mysore was organized which helped participants to gain live experience of processing and testing of Composites.

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31. Company Specific Training (FACE Academy)

Wheebox
Measuring World's Talent and Skill Potential

COMPANY SPECIFIC TRAINING make a difference to the students of institution. Apart from the training program, the trainers take an extra effort to develop the students on notable grounds through daily initiatives, like; *Surprise Test* – Test conducted for students of all batches at the end of the day without prior notice to monitor the progress and *Think Without Ink* – Students are supposed to solve the question which is presented in PPT without using pen and paper. It helps students to improve the calculation part and solving ability. To ensure students don't drift away from the concepts learned, two important activities to help students refresh the concepts learnt are carried out. A post engagement plan along with the webinar and subsequent assessments after the completion of the training programme are also carried out, like; *Regular weekly webinars* (After a few months of engagement completion) - Quick concept revision and *Online Assessments* - Practice post webinar. Once the webinar series is over a consolidated report of the test will be shared to placement & training centre of our institute.

All trainers are shouldering an important responsibility of not only being a knowledge sharing resource but also being a role model to the students. On the first day itself a PO kit consisting a sample hand-out for each topic delivered in the class. Standard practices in the course of the program practiced as a part of quality monitoring process system, i.e., 2 feedbacks i.e. first day and last day feedbacks to check student's response towards the training to initiate immediate corrections during and after the training are carried out. Trainer etiquette and feedback process + Standard Practices. Along with that, a client feedback on the last day to document valuable feedback for future use is carried out.
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3 (b) Programmes Participated by Teaching and Technical Faculty

Teaching and Technical Faculty have one of the most demanding vocations in the world and in order to fulfill their important roles with excellence, they need training, motivation as well as regular mental, emotional and spiritual rejuvenation. That educational systems the world over recognize the importance of the faculty is often evident by the resources spent on their capacity building. However, the issues often have been about building an effective model and mechanism that would develop and enhance the faculties' capacity and provide them avenues for professional development. In view of this, faculties are encouraged and supported to undergo training Programmes to enhance their knowledge in academics and allied areas.

Details of Academic Activity	**Radiation and Application**
Type of Academic Activity	Workshop
Faculty / Staff	Dr. Shivalingegowda Professor
Date & Place	17th to 22nd Feb 2019, IIT Hyderabad

IIT Hyderabad conducted a 6-day workshop on **"Radiation and Applications** (A confluence of Material Science and Accelerators - includes hands-on Experiment sessions, simulation tutorials & case studies) held at Indian Institute of Technology, Hyderabad.

The objective of the workshop is to provide exposure to fundamental scientific concepts of Particle Accelerators and their applications in Medical Science and Medical Physics. This workshop e-0vered the exciting topics that lie at the interface of Accelerator. Plasma, Beam manipulation and Medical applications. Special emphasis will be given to the use of physical approaches to understand particle dynamics. There were some lab sessions in related areas of research in physics. Apart from that the application of proton therapy is in recent years become a key part for improving cancer treatment and diagnostics in worldwide with major investments. Compact ion accelerators could have major impact as a next generation, cost effective technology for use in cancer therapy.

In the workshop, mainly concentrated on basic concepts of EM theory, Radiation Physics, linear accelerators, design, measurement md operational concepts, sources for accelerators, beam dynamics, diagnostics for particle detection, synchrotron and free electron laser, applications in material sciences, laser plasma accelerators and medical applications. The workshop is intended for faculty and research scholars from academia and participants from relevant industries.

Details of Academic Activity	**New Web based PMSS software**
Type of Academic Activity	Workshop
Faculty / Staff	• Mr. Ravi Asst. Nodal Officer-Procurement • Mr. Mahesh M S Programmer
Date & Place	15th to 16th April 2019, BMS College of Engg. Bangalore

A two days training program on "New PMSS software" was conducted by BMS College of Engineering Bengaluru in association with NPIU, state SPIU on 15th and 16th April 2019. Sri Ravi K, Assistant Procurement officer and Sri Mahesh M S Computer Operator who works on PMSS and PFMS were attended the program. Officials from All TEQIP 1.3 institutes of Karnataka were also attended the program.

Dr. B.V. Ravishankar, Prinicpal, BMSCE, inaugurated the program Sri L Ravi Kumar, TEQIP Coordinator welcomed the participants and introduced the NPIU officials to the participants.

Senior officer Mrs. Rupaly Jha and her team gave the hands on training on various menus and issues related from initiation of the procurement to completion of the package. Participants were also done some of the package initiation using demo mode.

Special Officer Mr. Manohar Nayak, Mr. Srinath, Mr. Krishna Murthy were also part of the training program. Feedbacks were taken from the participants to make the PMSS software more user friendly. The program was concluded on high notes and vote of thanks.

Details of Academic Activity	**Higher Education in India and Brazil: connecting Relevant partners**
Type of Academic Activity	Interaction Meeting
Faculty / Staff	Girish Babu M C Asst. Professor, Dept. of CS&E
Date & Place	9th May 2019, New Delhi

A report for the Higher Education in India and Brazil: connecting relevant partners at 9th May 2019, New Delhi.

The importance of collaborations across Indian and Australian institutions of higher education is now widely recognized. Indeed, a large number of collaborations already exist. A wide variety of twinning and articulation arrangements have been forged between Australian and Indian institutions of higher education and more are being planned. Other forms of linkages have also emerged, centred on student and staff exchange, study abroad and project-based experiences. Research links have also grown steadily, centred mostly on research training. Australian and Indian authorities have also cooperated in strengthening bilateral education, training and research exchange. The Australia-India Strategic Research Fund (AISRF) is a major initiative of the governments of Australia and India to strengthen collaboration is science and research. The AISRF is Australia's largest fund dedicated to collaboration in scientific research with any country and one of India's largest sources of support for international science.

Australian and Indian authorities need to continue to encourage collaborations through greater policy clarity to potential international partners. It recommends that Australian and Indian universities negotiate ways of extending the successful model of collaboration developed in recent years around shared supervision of research students and working on shared research problems of interest to both communities and industries. They should also examine ways of extending this model to other levels of education, with an emphasis on the mobility of students, together with the development of better mechanisms for credit transfer across institutions.

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Details of Academic Activity	**Educator Workshop**
Type of Academic Activity	Workshop
Faculty / Staff	• Suraj B S Asst. Professor Dept. of CS&E • Bramesh S M Asst. Professor Dept. of IS&E
Date & Place	17th to 21st June 2019, BMSCE Bangalore

Five days Workshop **"Educator Workshop"** at BMS college of Engineering, Bengaluru from 17th to 21st June, 2019. Gain / Achievement from the Workshop Attended:

Learned fundamental UiPath knowledge & skills, and gain practical experience through simple, yet very illustrative and informative exercises. Understood the purpose and use of the control center - UiPath Orchestrator. Learned how to deploy and trigger a process, how to provision a Robot, and how to use Assets and Queues. Learned how to build an end-to-end functional and qualitative automation project.

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Details of Academic Activity	**Professional Development training**
Type of Academic Activity	Workshop
Faculty / Staff	Dr. Nagarathna Professor & Dean Academic
Date & Place	18th to 23rd June 2019, IIM Kozhikode (IIMK)

Management Development Programme: **Professional Development Training** for TEQIP Institutions By: Indian Institute of Management Kozhikode (IIMK), Date: 18th to 22nd June 2019.

It was a 5 days program were they gave insight on various topics like- Issues in learning, Teaching methods, Team building, Getting students placement ready, Gender sensitivity and workplace management, Financial system in Academia, Accreditation Process, Project management, Research and publication strategies, IPR , Procurement management and Alumni Relations and Branding. Accreditation Process helps students determine if an institution meets minimum standards of quality and decide acceptable institutions for enrolment and also helps employers determine the validity of programs of study and whether a graduate is qualified. Employers often require evidence that applicants have received a degree from an accredited school or program. Enables the graduates to sit for certification examinations. Need of publication in a SCHOLARLY JOURNALS depends on: Teaching & research philosophy, Research culture (Research or teaching), Motivation level (monetary or non-monetary), Academic standards (high versus low), Exposure, Interest and Career objectives. Discussed about Scopus and H index of publications. Project Procurement Management: The processes IO purchase or acquire the products, services, or results needed from outside the project team to perform the work. Discussed about How Do We Manage Procurement?. Processes involved Planning, soliciting sources, choosing a source, administering the contract and closing out the contract. Procurement Planning is identifying which project needs can be best met by using products or services outside the organization. The question to be addressed are whether to procure, how to procure, what to procure, how much to procure and when to procure were discussed.

Details of Academic Activity	**Advances in Data Science: A practical approach**
Type of Academic Activity	Workshop
Faculty / Staff	• Shwetha M K • Deepika • S K Uma Asst. Professor Dept. of CS&E
Date & Place	17th to 21st June 2019, SJCE Mysore

Report on FOP on **"Advances in Data Science: A practical approach"** at SJCE. Mysuru 17th to 21st June 2019. Data Science is the area of study which involves extracting knowledge from all the data we have gathered. Is a mixture of various tools, algorithms and machine learning principles which are used to find hidden patterns in raw data? Data science is used to make decisions and predictions using some predictions tools. Data scientists could always look for ways to effective implement AI during their research and therefor drive values. Data Science helps to improve efficiency and increase competitive advantage, Advance Automation interactions with customers and workers, Customer management in various Industry sectors. Further it helps in creating various tools that can solve complex problems in computer science, automating tasks that require human interventions and create algorithms that can be used in various areas like gaming, healthcare, for researchers. Outcome of the workshop: 1) Understand and intuition of the whole process line of extracting knowledge from data, 2) Implementation/modification of method involved in Data Science, 3) Data analysis using with Panda data frame.

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Details of Academic Activity	**Applications in High Voltage Engineering**
Type of Academic Activity	Workshop
Faculty / Staff	Mahesh Kumar K M Asst. Professor Dept. of EE
Date & Place	19th June 2019, SJCE Mysore

TEQIP-III sponsored One-day workshop **"Applications in High Voltage Engineering"** on 19th June 201 was organized by Department of Electrical and Electronics Engineering, SJCE, JSS Science & Technology University, Mysuru. Overview: Demand and the diversity of application of electricity are increasing incessantly in these years. Electricity at high voltage can be both a medium for transmitting bulk power and also an enabler for technological solutions in many diverse fields, including biomedical systems. An integrated engineering approach involving the selection of materials, design of equipment, power transformers, high voltage generators etc is needed to provide a feasible solution to these problems. Powerful R&D across the globe has resulted in several classes of HV materials like nano-dielectrics, alternate liquid insulators etc. The workshop aims to give an insight and research orientation to these topics and so structured to benefit both the students and researchers in the area of High Voltage Engineering and its applications in various fields including pollution control.

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Details of Academic Activity	**Training on SPSS & AMOS**
Type of Academic Activity	Workshop
Faculty / Staff	Pooja Nagpal Asst. Professor
Date & Place	27th to 31st May 2019, DAHS, Manipal

Report on a five days hands on Training on SPSS & AMOS, this vacation, conducted by Department of Allied Hospitality Studies (DAHS) in association with SPSS South Asia (P) Ltd from 27th -31st May 2019 at Manipal. This started with inauguration of the prognunme followed by introduction to SPSS, Data Cleaning, and Missing Data. Descriptive Statistics, Chi Square, t-test, one way ANOVA, Correlation and Regression were thought by Dr S Lakshminarayanan. This day started with Dr Yogesh Pai P, on the topics like, Logistic Regression, Instrumental Development and Factor Analysis. This day started with Dr Nandan Prabhu, on the topics like, Simple Mediation, Moderation and Multilevel Modeling and ended with Manipal Campus Tour. These two days were handled by Dr Ganguli S, on the topic AMOS Structural Equation Modelling - Path Analysis

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Details of Academic Activity	**NDLI Club Karnataka State workshop for Educational Institutions**
Type of Academic Activity	Workshop
Faculty / Staff	Kodandaram
Date & Place	14th June 2019, Jnana Bharathi, Bangalore

"National Digital Library of India" conducted workshop at Bangalore on 14th June 2019, Jnana Bharathi, Bangalore University Library to train librarians and library professionals in academic institutions as well as public libraries on the state-of-the –art in digital libraries in general and NDLI in particular; to spread awareness amongst various groups of users about NDLI, and to deliberate with various stakeholders on emerging issues including copyright, entrepreneurship in education, crowdsourcing (folksonomy), open access. The workshop facilitated interaction among library professionals and the experts to discuss about the significance of the project in academic arena also attendees were encouraged to open up NDL club at their respective places to promote the services of NDLI.
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Details of Academic Activity	**Nanotechnology Development and Challenges**
Type of Academic Activity	Short term Course
Faculty / Staff	• Dr. Prashanth P A • Dr. Chandrashekar • Dr. T S Shashikumar Professors & Dept. of Chemistry
Date & Place	24th to 31st June 2019, NITTTR, Sector 26, Chandigarh

Report of the one week Short term Course (STC) on **"Nano technology Development and Challenges"** for NITTTR Chandigarh, Punjab at 27th to 31st May 2019.

The above short term course is organized by Applied Science Department. The one week short term course for Nanotechnology Development and Challenges is very essential for forth coming generation and research discipline. Nano science and nanotechnology covers a wide range of fields such as chemistry, physics, engineering, medicine etc. Nano materials, nano metrology, electronics, optoelectronics, information and communication technology and nano biotechnology and nano sciences have been considered in different categories in nanotechnology. The above said fields help to distinguish between developments of nanotechnology in different areas, but there is naturally some overlap.

The nano materials and the range of nano science that is aimed at understanding their properties and the behavior of some nano materials is well understood, whereas others present greater challenges. The most current applications represent evolutionary developments of existing technologies for example, man-sized titanium dioxide and zinc oxide are currently used in some sunscreens, nanoparticles and nanotubes are used in composites, materials that combine one or more separate components and which are designed to exhibit overall the best properties of each component. The other applications of nano-materials are used in coatings and surfaces, Tougher and Harder cutting tools, Paints, Fuel cells, Displays, Batteries, Fuel additives, Catalyst, Lubricants, magnetic materials, Medical implants, Machine able ceramics, water purification, Military battle suits, etc.

Details of Academic Activity	**Leadership & Management for Teachers organized by National Institute of Teachers**
Type of Academic Activity	Short term training
Faculty / Staff	Dr. Aluregowda Asst. professor
Date & Place	18th to 22nd June 2019, NITTR Kolkata

Two week short term training for **"Leadership and Management for Teachers"** and National Institute of Technical Teachers Training and Research, Kolkata on 10th to 21st June, 2019,

The first week training program has covered the teachers' roles and responsibilities as a leader, the traits and characteristics of leader, effective leadership styles and the leadership qualities in the workplace. Training program emphasizes on managerial skills required to teacher in teaching, learning, research and administrative level. This program focus on individual and institutional goal setting, objectives, vision and mission, change management and how do adopt to internal and external environment at the work place. Strategic management program starts with short and long term goals. It also focuses on work environment for teachers, importance of strategic thinking and strategic leadership. Emotional intelligence for teachers in teaching and research and the first week program completed with class room games and activities.

The second week training covers people management, formation of teams and team building process, growth mindset for leaders, collaborative learning and its benefits, Individual development program like self-management, stress management.

Details of Academic Activity	**Econometrics Tools Business Research**
Type of Academic Activity	Workshop
Faculty / Staff	Chandrika R Asst. Professor
Date & Place	25th June to 1st July 2019 School of Management, Pondicherry University

Report on seven day National level workshop on **"Econometrics Tools for Business Research"** Organized by Pondicherry University from 25th June to 1st July 2019. The seven days workshop was aimed at providing researchers, academicians and industry delegates with c comprehensive learning of analytics. The workshop modules were designed in such a manner that it helped the participants to get the hands on experience of various econometrics tools using software like E-views and Stata. The seven day program was very helpful in gaining knowledge on various econometric tools used in social science research. It also gave an opportunity to learn basics of e-views and state software. I would like to thank my institute, PESCE, Mandya to provide me a permission to attend such workshop, which helped me to gain knowledge and skills of software.

Details of Academic Activity	**Machine Learning with Python**
Type of Academic Activity	Workshop
Faculty / Staff	• Rakshitha M S Asst. Professor Dept. of IS&E • Vinutha S Y Asst. Instructor Dept. of IS&E
Date & Place	11th to 13th July 2019, SJBIT Bangalore

Three day Workshop on **"Machine learning with Python"** at SJB Institute of Technology, Bengaluru from 11th to 13th July, 2019.
Gain / Achievement from the Workshop Attended: Understood the comprehensive of machine Learning, Applications of and working of supervised and unsupervised learning algorithms. Learned fundamentals of python 3 and introduction to Anaconda and Jupyter notebook. Understood the basics of numpy, pandas and matplotlib. Learned how to implement Linear Regression using machine learning. Learned fundamentals of neural networks and ID3 algorithm. Learned naive bayes classifier and problems using the same.

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I Veena M Assistant Professor CS&E dept. PESCE Mandya attended the workshop on **"Image fusion and multimodal imaging Fundamentals to advanced"** at RIT, Bengaluru for 15th - 20th JULY,2019.In this workshop I learned about different image fusion categories ie., multi view fusion, multimodal fusion, multi temporal fusion, multifocal fusion and fusion for image registration. In model based there are 3 types i.e., kernel methods, graphical methods and neural networks and about different modalities and its working, different fusion techniques using mat lab mean(X, Y), max(X, Y), min(X, Y) and annotator get hub MD.ai package and about Tensor flow, mathematical morphology in interpolations i.e., erosion and dilation and about the subjective, objective evaluation along with hands on sessions.

Details of Academic Activity	**Image Fusion and Multimodal Imaging Fundamentals to Advanced**
Type of Academic Activity	Workshop
Faculty / Staff	Veena M Asst. Professor Dept. of CS&E
Date & Place	15th to 20th July 2019, RIT Bangalore

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4. Industry Institute Interaction Cell

Topic of the Projects	**Advanced Automotive Technology**
Name of the Department	Internship Dept. of Automobile Engineering
Date & Place	5th to 9th August 2019, Bosch Ltd. Bengalore

Students Internship for Dept. of Automobile Engineering on"Advanced Automotive Technology" at 5th to 9th August 2019, Bosch Ltd. Bengalore. As scheduled earlier, the day's topic was "Gasoline Injection System" where in our trainer made us to go through theory and practical aspects of the same after the theoretical explanation about the topic, we were made to identify various parts of injection system by practically seeing them and feeling them, which was followed by explanation about its functions an applications by our trainers. We then had an audio visual session which covered the various types of systems, components, mechanisms used in gasoline injection system in today's automotive industries. The trainer made us to explain and analyses the various components of engine, their position, function which helped us in knowing more about the engine explaining the "Engine Management System" and the different sensors used in system.
Some of the sensors are: a) Manifold Absolute Pressure Sensor [MAP], b) Intake Air Temperature Sensor [IAT], c) Mass Air Flow Sensor [MAF], d) Camshaft Position Sensor [CMP] and e) Crankshaft Position Sensor [CKP]. It was really fun as well as so much informative learning about them sensors play a vital part in the engine management system. The next topic was taken up by Mr.Karthik Krishnan about "Automotive Electronics". In the current scenario we cannot find any vehicles without the use of electronic and electrical in them, so they have become a necessity without which the automobiles are not let to hit the roads, so far there has been many developments in these things, one of which is the alternator [3phase]. This important device is used to start the vehicle, one of the trainer gave us the dismantled components of thin and explained us its construction and made us to understand more about the motor
After this class we had a feedback session where we shared our experience in Bosch with our trainee. And we were issued by the certificate of training in Bosch. After this we had a special snacks session for us provided by our trainee at the end of our day. We all were very happy and some of them had a chat about future in Bosch for them, took advice from them for our future and also we had a photo session in front of the training Centre.

Topic of the Projects	**Innovative Technology and Defence food Research Laboratory**
Name of the Department	Industry Visit of Mysore
Date & Place	21st Aug 2019, Infosys L&T Mysore

Department of **ECE** organized an **Industrial visit** to **Infosys, Mysore campus** on **21/08/2019** from 10:00 AM to 12:30 PM. A total of 142 third year students accompanied by 5 faculties visited the campus. The visit was organized to Know about the work culture of an IT company.

Since the campus was around 400 acres we were able to cover only 40% of it. After all the security checking we were taken to a conference room where we were addressed by Mrs. Pallavi VBedre, Team Lead, Training Team, Global Education Center, who was an alumni of PES College of Engineering. Initially we were made to watch videos about the history of Infosys and their founder's achievements and followed by a very good motivational speech by Dr. Narayan Murthy. After the videos, she spoke to us about the training process, and how students are thought from the scratch and how they learn to program python. She also spoke about the elevation of our carrier. After the session we were taken to the food court where we had delicious south Indian meals. Then we had been to **ILI (Infosys Leadership Institute)** which had gyms, dance studio, swimming pool, basket-ball court, seminar halls etc. and logged out of the campus at 1:30. The entire campus tour was by walk. The maintenance of the campus was very good and hygiene. We were allowed to walk on footpaths and zebra crossing and we were not allowed to walk on lawns.

5. Teaching Faculty Participation and Paper Presentation in Conference (within India)

Topic of the Paper	**Innovative in power and advanced computing Technologies**
Type of Conference	International Conference
Faculty/Staff	D M Srinivasa Asst. Professor Dept. of E&E
Date & Place	22nd to 23rd March 2019, VIT, Vellore

Attended a 2nd International conference on **"Innovations in Power and Advanced Computing Technologies (I-PACT2019)"** at V I T, Vellore on 22nd to 23rd March 2019. Comparative study of Breakdown Phenomena and Viscosity in Liquid dielectrics Liquid dielectrics are extensively used in electrical apparatus which are operating in distribution and transmission systems. The function of electrical equipment strongly depends on the conditions of liquid dielectric. Liquid dielectrics used are the most expensive components in power system apparatus like transformers and circuit breakers. A failure of this equipment would cause a heavy loss to the electrical industry and also utilities. Insulation failures are the leading cause of transformer failures and thus the liquid dielectrics plays a major role in the safe operation of transformers. One of the main causes for the failure of transformers is due to the presence of moisture. In this work, the life of insulating medium is estimated by comparing the Breakdown strength and Viscosity of different pure oils with that of the contaminated oils and also finding the alternative for mineral oil. Vegetable oils which are reliable, cost-effective and environmental friendly even when they are contaminated.

Topic of the Paper	**Advances in Information Technology and Computing**
Type of Conference	International Conference
Faculty/Staff	• Chetan Kumar V • Sanjay H M • Shruthi P S Asst. Professors Dept. of CS&E
Date & Place	26th to 27th April 2019, SNIST Hyderabad, Telangana

The 2nd National Conference on **"Advances in Information Technology and Computing"** was held at SNIST, Hyderabad, Telangana, India during 26th to 27th April 2019. I have attended the above said conference after availing permission to attend the conference under TEQIP grants. The aim of the Conference was to bring about greater understanding of the issues involved in Emerging Technology, sharing of world-wide best practices and experiences in this area and evolve a broad framework for the transformative process that enables the initiative.

- Creating Transformative Educational Experience: Contextual and situated learning environments that help students to achieve higher level skills to solve real life problems.
- Building Strong Design and Product Realization Skills: Strong design experience in curriculum, System level design expertise, Interdisciplinary product realisation experience.
- Facilitating Realistic Production Environment in the Campus Skilling India, Industry and Government Perspectives, Creating Transformative Educational Experience: Contextual and situated learning environments that help students to achieve higher level skills to solve real life problems, and Enabling Entrepreneurial Ecosystem in the Campus: Formal and informal interventions in student educational experience that help to create entrepreneurial mind-set for them.

Topic of the Paper	**Recent Innovations in Science, Engineering & Management (RISEM-2019)**
Type of Conference	International Conference
Faculty/Staff	Rudresh Addamani Asst. Professor Dept. of Mech.
Date & Place	10th to 11th May 2019, RRIT Bangalore

I the undersigned have attended International conference on **"Resent Innovations in Science, Engineering & Management (RISEM-2019)"** at RR institute of technology, Bangalore on 10th to 11th May 2019 to present my research paper titled "Optimization of P-GMAW welding parameters using Taguchi technique for SS 316L material". As it is part of research activity to full fill requirements of PhD.

2.2. Summary of Literature

- Most of the literature survey is carried to understand the input parameters for the modal, transient and harmonic analysis of delamination in a drilled hole using ANSYS 15.0, and The study revealed the preparation of composite using stir casting with controlled condition
- The study revealed effect of various parameters like speed of cutting, feed rate, thrust & torque on the key accuracy characteristics of drilled holes like cylindricity, circularity, and surface roughness and The study revealed creating FE based model, the FE-mesh, the time discretisation and FE based simulation in ANSYS 13.0
- The study revealed the idea of meshing in HYPERMESH 11.0 and solution is carried out in LS-DYNA solver using ANSYS 13.0, and
- The study revealed correlation between the experimental observations and the shear stress sign at the delamination front obtained by finite element analyses
- Finally to conclude, the overall literature survey has given all the required ideas to understand the significance and need to carry on the current work.

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Topic of the Paper	**Particle size effect on Porosity and tensile properties of aluminum based metal matrix nano Composites**
Type of Conference	International Conference
Faculty/Staff	Dr. Ganaraja S Professor, Dept. of Mechanical
Date & Place	22nd to 24th May 2019, NMAMIT Nitte karkalla Udupi

The present International Conference (SME-2019) on Smart and Sustainable developments in Materials, Manufacturing and Energy. This Conference helps the participants in understating the various technique of developing material, manufacturing methods and energy. It provides them with the background 10 work as a researcher to solve major problems in developing new material with modem techno logy and fulfil the requirement of industries for different applications. Materials in Biomedical, sports, defense related, aerospace, automobiles like different applications, Operation and management of systems with sustainable initiatives. Selected papers of this conference will be published in Scopus Indexed Journals.

I am teaching Advanced Material Technology, Nano-Technology and Newer Machining Technique subject for 1st and 2nd sem M.Tech students respectively and involved in research activity on experimental study on development, characterization and application for different field. The proposed conference will provide me a better platform to interact with experts and update my knowledge in teaching and to extend my research activity.The conference aim is to bringing together various disciplines, converge and amalgamate various new ideas, fields and technologies.

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Topic of the Paper	**Mechanical, Civil and IP Engineering ICMCIPE**
Type of Conference	International Conference
Faculty/Staff	• Raghu S Asst. Professor Dept. of I&P
Date & Place	26th May 2019, Pune Maharashtra

Report on the International Conference of The **"International Conference on Mechanical, Civil, Industrial and Production Engg. (ICMCIPE)"** held Pune, Maharashtra, on 26th May 2019, an reputed organization for Engineering activities, offers all participants an opportunity for understanding the recent trends in research and applications of Applied Engineering science from the highly proficient and knowledgeable researchers from around the world like Japan, Vietnam. The range of topics in Production Engineering, the depth of the presentations, the variety of perspectives, and the richness of the international discussions are going to be truly beneficial to me as an individual. The researcher from various sectors of the mechanical and production in the conference provides a good platform to know the various manufacturing techniques used to synthesize Nano Composites, ASTM testing methods followed to evaluate the properties of the Composites which can be used in different sectors.

Topic of the Paper	**International Conference on Advanced in Material Research (ICAMR-2019)**
Type of Conference	International Conference
Faculty/Staff	• Dr. Sadashiva M • Srinivasa M R Asst. Professor Dept. of Mech.
Date & Place	25th to 27th July 2019, MSRU Bangalore

The International conference is held on **"International Conference on Advanced in Material Research"** ICAMR-2019 which was held from 25th to 27th July 2019 at M S Ramaiah University of Applied Sciences, Bengaluru. The conference is very use for me since it has close relevance with my research area and subjects I teach in the class room. The conference is well organized and totally 148 papers from researchers of various institution all over India were accepted for presentation oral / poster.

The key note address was very interesting and was given by Dr. Chinnakonda Gopinath materials used in solar cells and was very much relevant to my research area. Dr. Prashanth Kalappa also presented a very good lecture on materials using in aviation industries. The conference was held for three days and I presented my paper entitled with "Analysis of mechanical properties of Graphene Hydroxyl reinforced Aluminum Composites treated with Shock Waves" orally. I received a wide knowledge in materials in the conference.

Topic of the Paper	**An Ontology Based System for Healthcare to Prevent Cardiovascular Diseases**
Type of Conference	International Conference
Faculty/Staff	Mr. Divakar H R Asst. Professor Dept.
Date & Place	26th to 27th July 2019, AIMSCE Andhra Pradesh

The Conference is inaugurate at 10:00am on 26th July 2019 by P Jagannadha Raju, Chairman, AIMS College of Engineering, Mummidivaram, Andra Pradesh. First session is started by key note speaker Dr. S. R. K Reddy, Professor in Civil Engineering and Advisor to Management, Gudlavalleru Engineering College, Gudlavalleru, Andra Pradesh, delivers a talk on Technological Innovations in recent trends. Dr. A Sesha Rao, Principal, Vignan's Institute of Engineering for Women, Vishakhapatnam, delivers a talk on importance of machine learning algorithms in detecting fraud in e-mail spam. Presented paper on **"An Ontology Based System for Healthcare People to Prevent Cardiovascular Diseases"** in **International Conference on Science Engineering and Technology – 2019,** AIMS College of Engineering, Mummidivaram, Andra Pradesh. This paper has been published in International Journal of Recent Technology and Engineering (IJRTE) a Scopus indexed Journal

Topic of the Paper	**Detection of Sub-Clinical mastitis Using Prototype Electronic - nose**
Type of Conference	International Conference
Faculty/Staff	Mr. M J Anand Asst. Professor Dept.
Date & Place	26th to 27th July 2019, AIMSCE Andhra Pradesh

The Conference is inaugurate at 10:00am on 26th July 2019 by P Jagannadha Raju, Chairman, AIMS College of Engineering, Mummidivaram, Andra Pradesh. First session is started by key note speaker Dr. S. R. K Reddy, Professor in Civil Engineering and Advisor to Management, Gudlavalleru Engineering College, Gudlavalleru, Andra Pradesh, delivers a talk on Technological Innovations in recent trends. Dr. A Sesha Rao, Principal, Vignan's Institute of Engineering for Women, Vishakhapatnam, delivers a talk on importance of machine learning algorithms in detecting fraud in e-mail spam. Presented paper on **"Detection of Subclinical Mastitis Using Prototype Electronic Nose"** in International Conference on Science Engineering and Technology – 2019, AIMS College of Engineering, Mummidivaram, Andra Pradesh. This paper has been published in International Journal of Recent Technology and Engineering (IJRTE) a Scopus indexed Journal.

Topic of the Paper	**Fatigue Durability and Fracture Mechanics and Symposium Condition Assessment/ Residual life Assessment and extension**
Type of Conference	International Conference
Faculty/Staff	Mr. Doddaswamy V Assot. Professor Dept. of ME
Date & Place	29th to30th August 2019, VTU Belagavi

Report on the International Conference of The "3rd - International Conference on **"Fatigue, Durability and Fracture Mechanics and Symposium Condition Assessment/ Residual Life Assessment and Extension"** held in Jnana Sangama VTU Belagavi, on 29th-31st August 2019, which is organized by institute of structural integrity and failure studies, VTU and dhio centre for excellence, offers all participants an opportunity for understanding the recent trends in research and applications of fracture mechanics and fatigue crack growth in materials from the highly proficient and knowledgeable researchers from around the world like USA, Spain and IITs and NITs. The range of topics in fracture toughness, the depth of the presentations, the variety of perspectives, and the richness of the international discussions are going to be truly beneficial to me as an individual. The researcher from various sectors of the mechanical metallurgists in the conference provides a good platform to know the various manufacturing techniques used to synthesize Composites and toughness characterization of composites, ASTM testing methods followed to evaluate the properties of the Composites which can be used in different sectors.

Further, the knowledge outcome will surely be advantageous to the institution and to my department in guiding research projects. The knowledge gained by interaction will also help in leading research activities more effectively.

6.Students activities

Details of Academic Activity	**IRIS-A Smart Outdoor Navigation Device for the Visually Impaired**
Type of Academic Activity	Workshop
Students Name	• Ruthuparna K • Ritushree Bannerjee • Ritu, • Aditya S • Nithin N Reddy All students is E&CE

Our team is very grateful to TEQIP-III and P.E.S College of Engineering, Mandya for all the support and financial aid provided to help us attend the annual technical festival of IIT Bombay 'Techfest' where we participated in an international competition called International Robotics Challenge (IRC).

For the competition, we were required to build two robots, a manual and autonomous bot that would coordinate with each other to tackle various challenges set forth during the competition. The autonomous bot had to solve a maze without any form of external help from the participants. It had to even identify the positions of different coloured blocks and scan a QR code. The manual bot had to be designed to move using a remote controller and to pick and place blocks. Its main objective was to clear the way for the autonomous bot by transferring the blocks detected by the autonomous bot in the maze to specified zones outside the maze. It had to also tackle obstacles and fire a projectile at a target. Each team was allotted with a time limit of 8 minutes to complete all the tasks and a time limit of 5 minutes for a pre-run of the autonomous bot for it to learn the maze. We also got the opportunity to attend a tech exhibition and talks that were conducted during the fest. Side note: Clicking pictures during the event was not allowed. This was done to prevent teams from getting a picture of the maze that had to be kept confidential for the proper functioning of the competition. However, we were granted permission to click a picture of the arena after the event was over.

Overall, we were disappointed since we couldn't let our bots function to their best abilities due to the technical errors and our shortcomings in building all of the required functionalities. On the positive front, we did participate and gain a lot of experience and clarity on building robots, working with various electronic components, programming, operating in a team and even finding out where we can buy various resources for future projects. We wish to further continue developing the bots and making them fully operational and optimized in performance. These two bots grant us the opportunity to develop much more sophisticated robots and open wide the endless possibilities that they have practically. We also look forward to participating in the competition again and putting up a better fight.

The Manual Bot

7. UG/PG Student Projects

Sl. No.	Guide Name	Students Name	Topic of the Project	Dept. Name
1	Dr. Gopiya Naik.S	Thejas M G Priyanka K Spoorthi B C Manuja T S	Automatic Strategy To Control Entire Villager's Water Pumps With User Level Authentication	E&E
2	B N Harish	Darshan C P Mahesh B Maqsood Shariff M Varun Bharadwaj V	Smart Helmet Based on IOT	E&E
3	H.C Manohara	Thejaswini K P Sahana C M Kowsalya Meghana R N	OTP Based Lineman Security System	E&E
4	B P Sowmya	Syed Khaddar Khan	QR code detection product recognition through speech	MCA
5	K.M Sowmyashree	Arunkumari S	Media based secure data Segmentation	MCA
6	K M Sowmyashree	Pavan K R	Restaurant Table Order App	MCA
7	Dr.Veena M.N	Monish.M	Water Pressure Monitoring and Alaram System Using IOT	MCA
8	Dr.M.N Veena	Janavi	Crime pattern protection using Machine learning Algorithms	MCA
9	T.S.Prabhakar	Mandara K R Siddarth H B Raghavendra Shenoy Hazimalangbaba	Types of Leaf Classification Using Machine Learning	IS
10	DR.Mninavathi	Varun Vasist G Trishukl Samukha R Pruthvi P Alva Deepathi Raj	Liver segmentation and Tumour Detection	IS
11	T.M Geethanjali	Approva M Noopru G Priyadarshini H S Varun P	Acne detection and classification system	IS
12	Jayanna S S	Akshaygowda C M Faisal Mahamood Tayaba Afshan Suraiya Sultana	Smart Mirror using Raspberry Pi 3	EC
13	Sumanth S	Gagan M N Prajwal B S Poonacha K M Spoorthi M R	Automatic Tolling Based On Vehicle Shape Recognition	EC
14	Ullas P	Anupama K M Dinesh Parameshappa Kundagol K V Naga Vishnuvardhan Mahadeva K	Clustering Based Security for Static Nodes used for Habitat Monitoring	EC
15	Revanesh.M	Bharath N Bharath U Dheeraj Upadhya Harshith N	Precise soil and water management using IOT	EC
16	Kumar N Krishnamurthy	Shravya H R Tanmaya S A Vishwanath S Rajesha H K	Comparitive Analysis of Teen Protecol In WSM	EC
17	Ashraya A N	Roja S Vasthsala C Kavitha M	College Bus Tracking Using Google Map	EC

Sl. No.	Guide Name	Students Name	Topic of the Project	Dept. Name
18	Bhavya D	S Kaushik Arakkalud Vasuki Varuna Y R Shreyas H N Sinchna M Hadli	Virtual Classroom using Augmented Reality	CS
19	Shruthi P S	Kavyashree B K Anusha G K Divyashree L	Smart security solution and adaptive street light system	CS
20	H.P. Ramyashree	Gowda Tejas Harish M Mohammed Ismail khan S Prasanna	Smart blind stick using IOT	CS
21	M. Veena	Shashank A R	Ensemble Of Segmentation Methods For Detecting Breast Cancer	CS
22	Dr. Nagarathna	Chaithra N T	Soil Expert : A Sensor Based Soil Tester With Automated Crop Predictions Based on Nutrients	CS
23	S.K.Uma	Harshith K S	Alternate Energy Generating From Busy Roads For The Development Of Smart Cities	CS
24	M A Venugopal	Akshay G R Deepak M Karthik M P Preetham	Design And Fabrication of Pneumatic Sheet Metal Shearing Machine	I&P
25	N K Sachin	Lekha A Mythri S N Tejas S Yogesh N	Design and Fabrication of Savonius Vertical Axis Wind Turbine	I&P
26	Ahobal N	Sharvan singh J Somashekar M Somashekar S D Sudharshan K Nayak Sumanth S Supradeep Vasista R	Fabrication of Conceptual Model of Intelligent Braking System	ME
27	Mahendra Babu K J	Mohammed Shahid Afrid Mohan kumar A R Nagendrakumar C A Nandiash N	Design and Fabrication of Water Hyacinth Harvesting Machine	ME
28	Dr.H.P.Raju	H B Puttuprasad Hemanthagiri S Inayate Ur Rehaman Jagadeesh A	Design and Fabrication of Multipurpose Agriculture Equipment	ME
29	Pavan K N	Sheshanna K Shivmurthy G C Karthik B S	Fabrication of Solar and Mechanical Power Driven Hybrid Tricycle	ME
30	Dr S L Ajit Prasad	Chethan C Sujayakumar Farhan Siddiq Siddalingaswamy	Design and fabrication of ECO Friendly Road Cleaner	ME
31	Ranjith K	MaheshA T M	Study of Forced Vibration Characteristics of Beams	ME
32	Ranjith K	Vishwas R	Experimental and Numerical Study of free Vibration Characteristics of Plates	ME
33	K Ramesh	Meghana Rajeshwari P B Changappa Narayana Mohith K R	Safe Riding with NFC Mode and Anti-Theft Mechanism	AU
34	B Dinesh prabhu	Samrat U Sandesh S Somayya gangayya	IOT application for agricultural electric cart	AU

Sl. No.	Guide Name	Students Name	Topic of the Project	Dept. Name
		mathapathi Vijayakumar S		
35	Rashmi M.P.	Poornima D. Shailaja T Pooja H P Santosh G Sachidananda B	An experimental study on light transmitting concrete	CV
36	D R Madhuchandra	Akshay N Gowda Mohammed Eithesham Nandan Kumar M R Saurbh Kumar	Effect of Terrazyme on Geotechnical Properties of Red Soil	CV
37	Abhishek G.B	Madhu B. Priyanka M.N. Karthik H.R. Arunkumar M.G. Harshitha H.K	Experimental study on ferrocement with coir fibre	CV
38	Shambhavi S	Dileep Kumar C B Shreyas H R Arshitha K Bi Bi Sara Sanganna	Cool Pavement Systems As A Mitigation Strategy of Urban Heat Island Effects	CV
39	Dr T. M Prakash	Vishankprabhugowda B K Joythi N Divyashree H K Anand G Santhosha D B	Experimental Study on the Influence of Sisal Fiber Reinforcement on the Properties of Self Compacting Concrete	CV
40	Sumanth S	Spandana Varun S Chavan Priyanka M Pawan H S Prathvini B M	Reclaimed asphalt pavement	CV
41	Sandeep Kumar D S	Kavitha Raj	Comparative study on seismic performance of simple steel frame and braced steel frame using shake table	CV

8. Papers Published Teaching Faculty in International Conference & Journals

SL. No.	NAME OF THE FACULTY	JOURNAL NAME	ISSN NO	TITLE OF THE PAPER	YEAR OF PUBLICATION
1	Kodandaram	Journal of Advancements in Library Sciences	2349-4352	A Study on order of authorship to discover the degree of authorship	Vol. 5, Issue 3, 2018
2	Dr. Prashanth P A	International Journal of Scientific Research and Review	2279-543X	Antibacterial and Cytotoxicity Studies of ZNO Nano particles Prepared by Bio-Fuelled Solution Combustion Sysythesis	Vol. 7, Issue 9, Page 485-491, 2018
3				Nio Nano particles and its Antibacterial Activity	Vol. 7, Issue 9, pp.492-499, 2018
4	Geethanjali T M	International Journal of Computer trends and Technology (IJCTT)	2231-2803	Security System using Arduino	Vol. 60, Issue 2, June 2018
5	Dr. H V Ravindra	IOP Conf. Series: Materials Science and Engineering	doi:10.1088/ 1757-899X/376/ 1/012120	Machine Vision System for Correlating Wire Electrode Status and Machined Surface in WEDM of AlSi3N4 MMC'S	Vol. 376, 2018 IOP Publishing

SL. No.	NAME OF THE FACULTY	JOURNAL NAME	ISSN NO	TITLE OF THE PAPER	YEAR OF PUBLICATION
6				Estimation of Machining Performances using GMDH and ANN in Wire EDM of Cu-1Cr-0.1Zr Alloy	
7		Materials Today: Proceedings	2985–2993	Estimation and Comparison of Welding Performances using MRA and GMDH in P-GMAW for ASTM 106 Material	Vol. 5, 2018
8			2877–2883	Optimization of Process Parameters for SS304 in Wire Electrical Discharge Machining using Taguchi's Technique	Vol. 5, 2018
9			3084–3092	Estimation of Machining Performances using MRA and GMDH in Wire EDM of Al2024 based Hybrid MMC	Vol. 5, 2018
10			203–212	Prediction of Machining Characteristics using Artificial Neural Network in Wire EDM of Al7075 based In-situ Composite	Vol. 4, 2017
11	Pavan K N	International Journal of Scientific Research and Review	2229-5518	Fabrication of Solar and Dynamo Power Driven Bicycle	Vol. 9, Issue 7, July 2018
12	Nayaka S R	Gulf Journal of Mathematics	41-49	Transversal Domination in Graphs	Vol. 6, Issue 2, 2018
13		Global Journal of Pure and Applied Mathematics	919-925	Bi-Pendant Domination in Graphs	Vol. 14, No 7, 2018
14	Dr. Puttaswamy	Vladikavkaz Mathematical Journal	59-66	Transversal Domination in Double Graphs	Vol. 20, No 4, 2018
15		Global Journal of Pure and Applied Mathematics	873-883	Upper Pendant Domination in Graphs	Vol. 14, No 6, 2018
16	Dr. Punithkumar M B	International Conference on ISMAC	211-220	Text-Independent Handwriting Classification Using Line and Texture-Based features	
17		International Journal of Engg, Basic-Sciences, Management and Social Studies	351-463	Development of Automated Test System for RRF Duplexer	Vol. 1, No 1, May 2017
18	Ullas P	Data Engg and Communication Technologies	978-3-030-03145-9	Study of Congestions in Wireless Sensor Networks for Different Applications	Vol. 26, Dec. 2018
19	Dr. S V Anilkumar	Advances in Polymer Composites: Mechanics, Characterisation and Applications	2057-20018-1-20018-8	Studies on Mechanical Properties on Banana Fibre Reinforced Polyster Composites.	AIP Conference Proceedings, Jan. 2019
20		International Journal of Latest Trends in Engg and Technology (IJLTET)	2319-3778	Design and Static Heat Transfer Analysis on Engine Cylinder Fins	Vol. 11, Issue 2, August 2018
21	Dr. H V Ravindra	Springer Nature Singapore Pvt. Ltd. 2019, V Sridhar et al (eds), Emerging Research in Electronics, Computer Science and technology Lecturer Notes in Electrical Engg	DOI 10.1007/978-981-13-5802-9_25	Assessment of Weld Bead Mechanical Properties During Destructive Testing Using Image Processing by Multivision Technique	ICERECT-2019
22	Sadashiva M	Springer INTERCERAM	0020-5214	Finite element analysis of Zirconia ceramic biomaterials used in medical dental implants	Vol. No. 68, Issue. 3, March 2019

SL. No.	NAME OF THE FACULTY	JOURNAL NAME	ISSN NO	TITLE OF THE PAPER	YEAR OF PUBLICATION
23	R Manjunatha	Asian Journal of Computer Science and Technology (AJCST)	2249-0701	Retinal Image Vessel Width Analysis in Retinopathy of Prematurity	Vol. No. 8, No. 2, pp 59-63, April-June 2019
24		Asian Journal of Engineering and Applied Technology (AJEAT)	2249-068X	Boundary Extraction and Vessel Width Calculation in retinal Fundus Images	Vol. No. 8, No. 2, pp 63-70, April-June 2019
25	Dr. Nagarathna	International Organization of Scientific Research Journals	2278-8727	Measurable Nutrients and Available Sensors to Design a Soil tester with Crop Recommendation	Vol. No. 21, Issue 2, March - April 2019
26	Dr. M L Anitha	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	Design of Implementation of Automic Energy Meter using IoT	Vol. No. 6, Issue 5, May 2019
27	Dr. Umesh D R	International Journal for Research in Engg Application and Management (IJREAMV)	2454-9150	Image Steganography based on Histogram Shifting	Vol. No. 5, Issue 2, May 2019
28	Divyashree M	International Journal for Research in Applied Science & Engg Technology (IJRASET)	2321-9653	Experimental Study on the Influence of Steel Fibre Reinforcement on the Properties of Self Compacting Concrete	Vol. No. 7, Issue 6, June 2019
29	Rashmi M P	International Research Journal of Engineering and Technology (IRJET)	2395-0056	An Experimental Study on Light Transmitting Concrete	Vol. No. 6, Issue 5, May 2019
30	Ashwini B	International Journal of Innovative Research in Science, Engg and Technology (IJIRSET)	2319-8753	Development of Geographycal Instantaneous Unit Hydrograph - A Case Study of Hemavathi Catchment	Vol. No. 8, Issue 3, March 2019
31	Dr. M C Padma	International Journal of Advanced Research in Computer and Communication Engg (IJARCCE)	2278-1021	Vrudh Sevak: A Digital Assistant for Lonely Elders using 'Technology of Device Connecctivity'	Vol. No. 8, Issue 5, May 2019
32		Journal of Engg and Technologies and Innovative Research (JETIR)	2349-5162	Security System for Forests	Vol. No. 6, Issue 5, May 2019
33		Journal of Engg and Technologies and Innovative Research (JETIR)	2349-5162	Detection of Affected Region and Classification of Plant Leaves Diseases using Image Processing Techniques	Vol. No. 6, Issue 5, May 2019
34	Prof. S K Uma	International Journal of Innovative Research in Science, Engg and Technology (IJIRSET)	2319-8753	A Survey On: Energy Generation for Development of Smart Cities	Vol. No. 8, Issue 3, March 2020
35		International Journal for Research in Applied Science & Engg Technology (IJRASET)	2321-9653	Alternate Energy Generating from Busy Roads by using Speed Breaker Mechanism	Vol. No. 7, Issue 5, May 2019
36		International Journal of Research and Analytical Reviews (IJRAR)	2348-1269	Alternate Energy Generating from Busy Roads by using Windmill Fan Mechanism	Vol. No. 6, Issue 2, May 2019
37	Dr. M L Anitha	International Research Journal of Engg and Technology (IRJET)	2395-0056	Optimal Delivery of Baggage to Passengers at Airport	Vol. No. 5, Issue 6, June 2018
38	Dr. T S Shashikumar	Radiation Protection Dosimeter (Oxford Journal)	1742-3406	Measurement of Radon soil gas in and around Bharathinagara, Mandya District	Vol. No. 183, pp: 1-5, May 2019
39	Anand M J	International Journal of Advance Research in Science and Engg (IJARSE)	2319-8354	Development of an E-Nose Using Metal Oxide Semiconductor Sensors for the	Vol. No. 06, Issue 11, Nov. 2017

SL. No.	NAME OF THE FACULTY	JOURNAL NAME	ISSN NO	TITLE OF THE PAPER	YEAR OF PUBLICATION
				Classification of Different Types and Aging of Milk	
40		International Journal of Electronics, Electrical and Computational System (IJEECS)	2348-117X	Characterisation of Gas Sensor Array for Milk Spoilage and Dieses Detection	Vol. No. 07, Issue 02, Feb. 2018
41	Divakar H R	International Journal of Computer Trends and Technology (IJCTT)	2231-2803	Classics of Deep Learning Approach for Human Behavior Ontology: A Survey	Vol. No. 51, No. 01, Sept. 2017
42	Dr. C J Gangadhara Gowda	International Journal for Research in Applied Science & Engg Technology (IJRASET)	2321-9653	Fluid Structure Interaction and Aero Acoustic Study on Horizontal Axis Wind Turbine	Vol. No. 07, Issue 07, July 2019
43	Dr. S Ghanaraja	International Journal for Research in Applied Science & Engg Technology (IJRASET)	2321-9653	Fabrication and Study of Microstructure of Al 6061-MnO2 Metal Matrix Composites	Vol. No. 07, Issue 07, July 2019
44			2321-9653	Study of Tribological Properties of Al 6061 Reinforced MnO2 Metal Matrix Composites	Vol. No. 07, Issue 07, July 2019
45	Dr. S Vinay	International Journal of Engg Research in Computer Science and Engg (IJERCSE)	2394-2320	A Review on Remote Data Auditing in Cloud Computing	Vol. No. 05, Issue 04, April 2018
46		Journal of Engg and Technologies and Innovative Research (JETIR)	2394-5162	A comparative Study on Supervised Learning Methods	Vol. No. 06, Issue 05, May 2019
47		International Journal of Engg Research in Computer Science and Engg (IJERCSE)	2454-9150	A Data Mining Approach for Money Laundering Detection	Vol. 05, Issue 02 May 2019
48	Raghavendra Babu T M	International Journal for Research in Engg Science and Management (IJRESM)	2581-5792	A Survey on Smart Water Quality Monitoring System Based on IoT	Vol. 02, Issue 04 April 2019
49	Sanjay H M	International Journal of Emerging Technologies and Innovative Research (IJETIR)	2349-5162	Hybrid Indexing Scheme for Preserving Medical Data in Mobile Cloud Environment	Vol. 06, Issue 05 May 2019
50			2349-5162	Survey on Block Chain Technology in Collaboration with Cloud Platform	Vol. 06, Issue 05 May 2019
51		International Journal for Research in Engineering Application and Management (IJREAM)	2454-9150	Setting up CICD Pipeline for Web Development in Cloud	Vol. 06, Issue 05 May 2019
52	Shruthi P S	International Journal of Emerging Technologies and Innovative Research (IJETIR)	2349-5162	Evaluation of System utilization in Datacentre by Integrating DMS-PSO in queuing model	Vol. 06, Issue 05 May 2019
53	Jayashankara M	International Journal for Research in Engineering Application and Management (IJREAM)	2454-9150	Location Based News Classification using Machine Learning	Vol. 06, Issue 05 May 2019
54	Dr. Punithkumar M B	International Journal of Computer Science and Engineering (IJCSE)	2347-2693	Design and Verification of Serial Peripheral Interface Master Core Using Universal Verification Methodology	Vol. 07, Spl. Issue 14 May 2020
55		Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	Design and Verification of SPI Master Core Using UVM	Vol. 06, Issue 05 May 2019
56	Rakshith N	International Journal of Computer Trends and Technology (IJCTT)	2231-2803	Security to the Cloud Using RSA and Blowfish Algorithm	Vol. 67, Issue 04 April 2019

SL. No.	NAME OF THE FACULTY	JOURNAL NAME	ISSN NO	TITLE OF THE PAPER	YEAR OF PUBLICATION
57	Prasanna P	International Journal of Computer Science and Mobile Computing (IJCSMC)	2320-088X	Smart Traffic Mangement for Emergency Vehicle	Vol. 07, Issue 05 May 2018
58		Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	Diabetes Mellitus Disease Prediction Using Machine Learning	Vol. 07, Issue 05 May 2019
59	Shivashankar S K	International Journal of Computer Science and Emerging (IJCSMC)	2347-2693	Performane Evaluation of Machine Learning Techniques for the Classification of BUPA Liver Disorder	Vol. 07, Issue 02 Feb. 2019
60	R S Prasanna Kumar	International Journal of Innovative Research in Science Engineering and Technology (IJIRSET)	2319-8753	Landside Detection Using Wireless Sensor Network on Disaster Monitoring	Vol. 08, Issue 04 April 2019
61				Flood Prediction Using Wireless Sensor Network on Disaster Monitoring	
62	Puttaswamy B S	International Journal of Creative Research Thoughts (IJCRT)	2320-2882	Comparative Study of Image Approaches for Lane Detection	Vol. 06, Issue 02 April 2018
63		International Digital Library for Technology and Research (IDL)	2465-3289	Advanced Driver Assistance System to Meet Extreme Weather Condition	Vol. 02, Issue 02 May 2018
64	Naveen Kumar S	International Research Journal of Engineering and Technology (IRJET)	2395-0056	Seismic Evaluation of Building on Plain and Elevated Ground	Vol. 05, Issue 05 May 2018
65				Seismic Evaluation of Multi-Storid RC Building with Fluid Viscous Damper Using Response Spectrum Analysis	
66		International Journal for Research in Applied Science & Engg.Technology (IJRASET)	2321-9654	Lateral Load Analysis of High-Rise RC Framed Building with and without RC Shear Walls	Vol. 07, Issue 05 May 2019
67	Mahesh Kumar A S	International Journal of Trend in Scientific Research and Development (IJTSRD)	2456-6470	A Unique Technique for Solid Waste Segregation	Vol. 03, Issue 05 July-Aug. 2019
68	Dr. K A Radhakrishna Rao	International Journal of Science and Innovative Engineering &Technology (IJSIET)	ISBN 978-93-81288-18-4	Verification of all Features of AMBA AXI bus Protocol for Single Master and Single Slave using System Verilog	Vol. 7, May 2019
69		International Journal of Engineering Research and Applications (IJERA)	2248-9622	Design and Implementation of Reconfigurable Router for Network on Chip (Noc) using System Verilog	Vol. 09, Issue 05 May 2019
70	Dr. H S Sheshadri	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	Diabetic Retinography Classification Using Transfer Learning and Exudates Detection Using Faster-RCCN	Vol. 06, Issue 05 May 2019
71		International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2321-9653	Detection of Diabetic Retinography by Screening of Fundus Images	Vol. 07, Issue 05 May 2019
72		International Journal of Scientific Research and Review (IJSRR)	2279-543X	Retinal Diesease Detection Using LBP Technique	Vol. 07, Issue 07 July 2018
73		International Journal of Computer Science and Engineering (IJCSE)	2347-2693	Denoising of Skull Stripped Brain Tumor MR images	Vol. 06, Issue 11 Nov. 2018

SL. No.	NAME OF THE FACULTY	JOURNAL NAME	ISSN NO	TITLE OF THE PAPER	YEAR OF PUBLICATION
74	Dr. Mahesh Kaluti	International Journal of Computer Trends and Technology (IJCTT)	2231-2803	Convolutional Neural Network for Detection of Sign Language	Vol. 67, Issue 05 May 2019
75		International Journal of Research and Analytical Reviews (IJRAR)	2348-1269	Kisan Jyothi: A Real-Time Tracking System for Pumpsets Using IoT	Vol. 06, Issue 02 June 2019
76	Chethan Kumar V	Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	Critical Data and Location Dependent Handover Algorithm for Wireless Body Area Network Under Mobility Condition	Vol. 06, Issue 05 May 2019
77	Mahesh Kumar A S	International Journal of Research and Analytical Reviews (IJRAR)	E-ISSN 2348-1269, P-2349-5138	Smart Helmet and Bike Analyzer	2019 IJRAR, Vol. 6, Issue.2 , June 2019
78			E-ISSN 2348-1269, P-2349-5138	Computing PI and Flight Controller	2019 IJ
79	Anand M J	International Journal of Computer Science and Mobile computing (IJCSMC)	2320-088X	Verification Environment for 12C Controller Using System Verilog-Universal Verification Methodology (UVM)	Vol. 8, Issue. 5, May 2019, pp.100-108
80			2320-088X	Development of an E-nose using metal oxide semiconductor sensor for the classification of different types and aging of the milk	vol. 8, Issue. 5, May 2019, pp.109-118
81	Geethanjali T M	International Research Journal of Engineering and Technology (IRJET)	2395-0072	Automatic Door Monitoring System	Vol. 6, Issue. 7, July 2019, pp.3720-3722
82		International Journal of Computer trends and Technology (IJCTT)	2231-2803	Acne Detection and Classification System	Vol. 6, Issue. 7, May-2019, pp.54-57
83	M Subramanyam	UGC Approved Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	Design and Implementation of A circuit for analogy Linear Regression	Vol. 6, Issue. 5, May 2019, pp. 273-280
84	Dr. Mahesh	UGC Approved Journal of Emerging Technologies and Innovative Research (JETIR)	2349-5162	Smart Analogy Circuit Simulator	Vol.6, Issue.5, May-2019, pp. 157-162
85			2349-5162	Smart Digital Circuit simulator	Vol. 6, Issue-5, May 2019, pp. 49.56
86	B S Nanda	International Journal advance research ideas innovations in technology UGC Journal	2454-132X	Advanced healthcare monitoring system using raspberry Pi3 based on Internet of things (IOT)	Vol. 5, Issue. 3, pp. 960-964, May-2019
87		International Journal of Engineering Research and Application UGC Journal	2248-9622	Design and Implementation of Five port Router for Mesh Network	Vol. 9, pp. 91-97, May-2019
88	Abhishek G B	International research Journal of Engineering technology (IRJET)	2395-0072	Scheduling and Labour Management for Residential Building Projects using Primavera	vol.6, Issue. 07, July 2019, pp. 1755-1759
89	Lakshmi P S	International Journal for research in applied science & Engg. Technology (IJRASET)	2321-9653	Experimental Investigation on Utilization of Sugarcane Bagasse Ash as a Cementations Material in Mortar	Vol. 7, Issue.6, June-2019, pp.351-358
90	Dr. Puttaswamy	American International Journal of research in	2328-3491 & 2328-3580	Extended Research in Pendant Domination Polynomial of a Graph	ICCSPAM 19-10: 2019, pp.69-72

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91	Dr. Nayaka S R	Science, Technology, Engg & Mathematics	2328-3491 & 2328-3580	Minimum Pendant Dominating Energy of A Graph	ICCSPAM 19-15: 2019, pp.101-109
92	Dr. S S Parthasarathy	Grenze International Journal of Engg and Technology (UGC Approved)	01.GIJET: 3.368	A Research Survey on Alzheimer`s Disease	Vol.6, Issue.5, July-2017, pp.86-93
93		International Journal of Intelligent Engineering and System (IJIES)	Ijies 1335	Diagnosis of Alzheimer Disease using Fast Independent Component Analysis and Otsu Multi level Thresholding	Vol.11, No.5, April. 24 2018, pp.74-83
94		International Journal of Computer Engineering and Technology (IJCET)	0976-6375	Relief feature Selection based Alzheimer Disease Classification using Hybrid features and support vector machine in magnetic Resonance imaging	Vol.10, Issue. 1, Jan 2019, pp.124-137
95		International Journal of Research Electronics & Computer Engg (IJRECE)	2393-9028	Region Localization using Recurrent Morphological Coding in Alzheimer MRI	Vol.7, Issue.1, Jan-March 2019, pp. 840-848
96		International Journal of Emerging Technologies Innovative (JETI)	2349-5162	Early Diagnosis of Alzheimer`s Disease on the basis of Orthogonal Locality Preserving Projections and Multi Support Vector Machine	Vol. 6, issue 4, April. 2019, pp.526-523
97	H R Divakar	International Journal Computer Sciences and Engineering (IJCSE)	2347-2693	Automatic Extractive Text Summarization Using K-Means Clustering	Vol. 6, Issue.6, June 2018, Pp.832-837
98			2347-2693	Prediction of Human Health Using Decision tree Technique	vol.6, Issue. 6, June 2018, pp.857-860
99	Dr. Chandrashekar	International Journal of Scientific Research and Reviews	2279-0543	Oxidation of Niacinamide by Sodium-N- Chlorobenzene (CAB) in acid medium Catalysed by Ru (III) Ion. Kinetic and Mechanistically	IJSRR 2019, 8(3), pp454-463
100	Mahesh Kumar A S	International Journal of Research and Analytical Reviews (IJRAR)	2349-5138	RF Wireless Controlled and Solar Powered Multi-use Agricultural Autonomous Vehicle	Vol. 6, Issue. 2, IJRAR June 2019, pp.934-939
101			2349-5138	Discrete wavelet transform Technique based satellite image resolution enhancement	Vol. 6, Issue. 2, IJRAR June 2019, pp.322-332
102	Dr. Ajit Prasad S L	International Journal for Research in applied Science & Engg Technology (IJRASET)	2321-9656	Identification of Tooth Damage in a Gearbox by vibration Signal Analysis	Vol. 7, Issue. 4, pp.1596-1603, June 2019
103			2321-9653	Vibration of Response of a Gearbox having Gear with Teeth root Cracks	Vol. 7, Issue. 4, pp.2015-2020, June 2019
104			2321-9653	Study of Vibrational Response of a rotary System with Defective Rolling Element Bearing	Vol. 7, Issue. 4, pp.1754-1759, June 2019
105	Dr. Sadashiva M	Journal of Nan science, Nano-engineering & Applications	2231-1777 (Online) 2321-519(Print)	Experimental Investigation Tensile Characteristics of Hybrid Nan composites Joints be FSW With Optimized Welding Parameter	Vol. 9, Issue.2, pp.7182, 2019 STM Journals

9. Publication of Research Papers (SCOPUS)

Sl. No.	Name of author	Title of paper	Type	Dept.	Source Name
1	Addamani R, Dr. Ravindra H V, Ugrasen G, Chethan Y D	Estimation and Comparison of Welding Performances using MRA and GMDH in P-GMAW for SS 316L Material	IMEC Proceedings	ME	ASME (IMEC 2018)
2	Dr. H M Nanjunda Swamy	Synthesis and Characterization of Mechanical Properties of nano TIO2 particle Reinforced AL-MMC	International Journal of Mechanical and Production Engg Research and Development (IJMPERED)	ME	Vol.8, Issue.2, pp. 981-988, April 2018 2249-8001
3	B Dinesh Prabhu	Experimental investigation and mechanical of Properties of polyvinyl ester/glass fiber composite with alumina (Al2O3), molybdenum disulfide (MoS2) and titanium oxide (TiO2) fillers	International Journal of Mechanical and Production Engg Research and Development (IJMPERD)	AU	Vol. 8, Issue.6, Dec. 2018, pp.125-134, 2249-8001
4		Experimental Analysis of Wear Properties of Nano Scale Fillers On Vinyl Ester-Glass Fiber Hybrid Composites and Optimization by Taguchi Approach	International Journal of Mechanical Engg & Technology (IJMET)		Vol. 9, Issue.12, Dec.2018, pp. 692-708, 0976-6359
5		Wear Properties of Nano Scale Fillers on Vinyl Ester-Glass Fiber Hybrid Composites			Vol. 7, Issue.5, 0976-6360
6	Naveen Kumar S	Comparative Evaluation of steel Mesh Reinforced Concrete with Copper Slag as Value Added Material	International Journal of Civil Engg and Technology (IJCIET)	Civil	Vol. 10, Issue. 5, pp. 824-831, May 2019, 976-6308
7	Lakshmi P S	Influence of bagasse ash replacement on Strength Properties of cement Mortar			Vol. 10, Issue. 5, pp. 954-962, May 2019- 0976-6308
8	Kodandrama	Unethical publishing behavior of an Indian predatory journal: a case study	Library Philosophy and Practice	Library	1522-0222
9	Dr. J Venkatesh	Box-Behnken response surface methodology for optimization of process parameters for dairy washed milk scum biodiesel production	Bio fule - Publisher: Taylor and Francis	AU	Vol. 9, No.4, pp. 1 - 11, 2018 1759-7269
10		Bio-Based diluents improve cold flow properties of dairy washed milk scum biodiesel	Renewable energy publisher Elsvier		Vol. 111, pp. 168-174, 2017 0960-1481
11		Acetone and Diethyl ether improve cold flow properties of dairy washed milk scum biodiesel	Renewable energy publisher Elsvier		Vol. 130, pp. 446-451, 2018 0960-1481

Sl. No.	Name of author	Title of paper	Type	Dept.	Source Name
12	Dr. H V Ravindra	Optimization of Machining Parameters in Turning Nimonic - 75 Using Machine Vision and Acoustic Emission Signals by Taguchi's Technique	ELSEVIER	ME	Volume 114C, 2019, Pages 144-154
13	Dr. H J Puttabasavegowda	Experimental Study on the Influence of Sissal Fiber Reinforcement on the Properties of Self Compacting Concrete	IAEME	Civil	Vol. 10, Issue 05, pp 1014-1015, May 2019
14	Sandeepkumar D S	Parametric Studies on Concrete Partially Replaced with SCBA Subjected to Elevated Temperature	IAEME		Vol. 10, Issue 05, pp 1003-1013, May 2019
15	Naveen Kumar S	Comparative Evaluation of Steel Mesh Reinforced Concrete with Steel Slag as Value Added Material	IJITEE		Vol. 8, Issue 8, ISSN: 2278-3075, June 2019
16	Dr. Prashanth P A	Comparison of Antimicrobial, Antioxidant and Anticancer Activities of ZnO Nanoparticles Prepared by Lemon Juice and Citric Acid Fueled Solution Compassion Synthesis	Sprigged US	Chemistry	ISSN (O) 2191-1649 August 2019
17	Anand M J	COMPUSOFT, An International Journal of Advanced Computer Technology	COMPUSOFT	E&C	ISSN (O) 2320-0790 Vol. 8, Issue 7, July 2019
18	Ullas P	International Journal of Recent Technology and Engineering	IJRTE	E&C	ISSN (O) 2277-3878 Vol. 8, Issue 2, July 2019
19	Dr. Pinith Kumar M B	An Ann based real time system for Classification of Normal and Abnormal Cries of Pre-Term and Neonates	2249-8958	E&C	Vol. 8, issue 5S3, July 2019, pp.133-138
20		A Simplified Research for Mathematical Expression Recognition and its Conversion to speech	International Journal Recent Technology and Engineering (IJRTE)-2277-3878		vol. 8, Issue.2S8, August 2019, pp.133-138
21	Pavan N K	Augmentation of Heat Transfer in a Duct with Rotating Turbulator using Al2O3 Nanofluid	International Journal of Recent Technology and Engineering (IJRET) 2277-3878	ME	Vol. 8, Issue.3, pp.3059-3062, Sept. 2019
22	Sanjay H M	Point of time analysis for target identification time using flock and feedback approach in cloud environment	Journal of Advanced Research in Dynamical and control System 194-023X	CS	issue.17, pp.1774-1784
23	Kodandarama	Research Performance of top Universities in Karnataka based on Scopus citation index	1522-0222 Philosophy and Practice (e-Journal)	Library	2019
24		Plagiarism and Application of Plagiarism Prevention tool" An Overview			2019

10. Ph.D Awardees

P.E.S. Research center Encourages Faculty Members Pertaining to different disciplines to take up research work under the able guidance of Professors Registered as guides under VTU Belagavi and other Universities. Our research center has ample number of research supervisors who could cater to the need of the research center. Faculty members from various disciplines pursued research under P.E.S. research center and been awarded Ph.D. degree for Basic Sciences & Engineering disciplines.

COMPUTATIONAL FLUID DYNAMICS SIMULATION OF COMPRESSION IGNITION ENGINE PROCESSES

Raghavendra Reddy NV
Asst. Professor
Dept. of Mechanical Engg
JIT, Davanagere.

Registration for PhD on June 2010
University /Branch: VTU, Automobile Engg.
Award of Phd Degree: 30th April 2019

Dr. B Jayashankara
Professor
Dept. of Automobile Engg.
PESCE, Mandya.

Abstract: In-cylinder fluid motion in compression ignition (CI) engines is the one of the most important factors controlling the combustion process. It controls the fuel-air mixing and burning rates in diesel engines. The objective of this research is to develop advanced diesel combustion strategies for reduction in pollutant exhaust emissions in a single cylinder direct injection diesel engine. The performance and emissions of a compression ignition engine depends on proper matching of fuel injection with the in-cylinder fluid motion and combustion chamber geometry. Small changes of the combustion chamber geometry can lead to a significant improvement of mixture formation and thus reduced emissions.

In the virtual development of future engine combustion processes 3D-Computational Fluid Dynamics (CFD) is an important tool. In the present work a multi-dimensional CFD code Ansys Forte is employed with a newly developed automated grid generator and a multi-objective genetic algorithm is used to study the combustion process and emissions. Four different combustion chamber geometries viz. flat; W-shape, Omega shape and deep reentrant toroidal combustion chamber geometries and their geometric variations are considered for the study. The incylinder pressure, temperature, heat release rate, NOx, Soot and CO emissions are analysed keeping the constant compression ratio for all the four geometries and bowl geometry variations. Response surface goal driven optimization is done for combustion chamber geometries and geometric variations for emissions by using Minitab. These individual optimization results show that different geometries and geometric variations play a significant role in reducing emissions. Results show that among these four engines combustion chamber geometries, deep reentrant bowl optimized geometry gives less emissions than the other geometries.

STUDY ON JACKETED REINFORCED CONCRETE COLUMN

Vijaya Kumar Y M
Assistant Professor
Dept of Civil Engg
A I T Chikmagalur

Registration for PhD on November 2012

University /Branch: VTU, Civil Engineering
Award of Phd Degree: 17th May 2019

Dr. Gopisiddappa
Professor
Dept of Civil Engg
PESCE Mandya

Abstract: The rehabilitation of concrete structures has become increasingly important as we hear more and more about deterioration of the infrastructure. The problem is more severe due to limited funds available for rebuilding these structures. During the last decade the researchers have been involved in various aspects of rehabilitation of concrete structures. These include bringing together engineers from the East and the West, to discuss such problems and develop common solutions through international symposia. The American Concrete Institute's (ACI's) committee 364 on "Rehabilitation of Concrete Structures" for a possible co-operation at global level. It was organized in 1981 with a mission of developing and reporting information for the rehabilitation, renovation of concrete and masonry structures.

Mohammed Hezam Alatif
Researcher,
Department of
Mathematics

Some Studies in the Theory of Graphs

Registration for PhD on 25th March 2014

University /Branch: VTU, Mathematics
Award of Phd Degree: 22nd May 2019

Dr. Puttaswamy
Professor and Head
Department of Mathematics
PESCE, Mandya

Abstract: Domination in graphs has been an extensively researched branch of graph theory. Graph theory is one of the most flourishing branches of modern mathematics and computer applications. The last 30 years have witnessed spectacular growth of Graph theory due to its wide applications to discrete optimization problems, combinatorial problems and classical algebraic problems. It has a very wide range of applications to many fields like engineering, physical, social and biological sciences; linguistics etc.

In this thesis, we tried to extend, improve and generalize recent results in domination theory and explore new concepts and graph operations. The thesis is classified into seven chapters, in which the concept of Boundary Domination and Edge Boundary Domination are defined and studied. Inverse Boundary Domination and Energy of graphs are also studied.

Mohammed Ahmed Ali Abdu Alrhman

Design of Robust Concept Drift Adoption Strategies for High Speed Data Stream Mining

Registration for PhD on 28th March 2015
University /Branch: MOU, CS&E
Award of Phd Degree: 18th June 2019

Dr. M C Padma
Professor and Head
Dept. of CS & E,
PECSE, Mandya

Abstract: The performance of the analysis methods in data science and engineering, such as knowledge discovery, information retrieval, and mining are tightly correlated with similarity and diversity of the input data. However, if the input data is static and available prior to the process, then the data analysis techniques can be balanced to achieve optimal outcomes. However, majority of data sources in recent past are continuous and streaming. Dealing with these continuous and streaming data sources is more complex and challenging task due to lack of prior knowledge about the similarity, diversity, and dimensionality of the present streaming data that compared to the buffered data of the corresponding data stream. Hence in this regard, it is obvious to have considerable methods to discover the similarity or diversity status of the present streaming data that compared to the buffered data. This issue is defined and explored in contemporary literature as concept drift. Due to increase in the number of data streams' applications such as network intrusion detection, weather forecasting, and detection of unconventional behavior in financial transactions, numerous researches have recently been conducted in the area of concept drift detection. Majority of the contemporary methods in regard to concept drift detection have their own parameters and their optimal values vary depending on the datasets used, the type of drift these datasets have, the values of the other parameters. This thesis was initiated to identify the constraints of the contemporary methods devised to handle the concept drift in data streams in relation to supervised learning. Further contributions endeavored to portray the significant methods to detect the concept drift in data stream mining. The initial contribution of this doctoral research is an Incremental Binary Classifier (CS-IBC) that built on evolutionary computation-based search technique called CUCKOO Search. Later contributions of this doctoral thesis are "Deterministic Concept Drift Detection" that aim to detect concept drift in streaming data in Ensemble Classification Process and "Unsupervised Learning by Pattern Distribution Similarity" with its objective of enhancing the accuracy of the concept drift detection and its diversity with minimal delay. These detections are done in the data streams of unlabeled data which is able to react equally to different kinds of concept drift. Finally, a model called "Concept Drift Detection Towards imbalanced data" is proposed to detect the concept drift in imbalanced data. This thesis concluded with a significant contribution that deals with diversified concept drift strategies like abrupt concept drift, gradual concept drift, and recursive concept drift.

Development of Aluminium Based Metal Matrix Nano Composites

Dr. Madhusudan B M
Assistant Professor
NIE Mysore

Registration for PhD on 25th March 2014
University /Branch: VTU, Mathematics
Award of P.hd Degree: 12th July 2019

Dr. H P Raju
Professor
Dept. of Mech. Engg.
P.E.S.C.E, Mandya

Abstract: The nano-sized particle-reinforced metal matrix composites are the new potential material which could be applied in many industry fields. At present, the nano-sized particle-reinforced metal matrix composites could be manufactured by many methods. Silicon carbide particle reinforced aluminum alloy matrix composites are useful in the defense, aircraft and automotive industries, where the properties of these composites at elevated temperature are treated as important. Hence, the fabrication of aluminum based matrix nan composites is receiving substantial importance in reaching the requirements of various industries. Dispersion of harder ceramic secondary phase in the matrix alloy to synthesize MMNCs has also been reported to be more advantageous and economical due to its high specific strength and corrosion resistance properties. In the present research, micron size SiC particles are milled for 45-hours in wet milling arrangement of a planetary type ball mill and the milled powder mix contains fine nanoparticles of SiC and a very small quantity of unfilled coarser particles are present. Synthesized nano SiC particles are dispersed in aluminum alloy by stir casting technique. The mechanical properties of developed composites have been studied as per ASTM standards.

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Development of an Algorithm for Early Detection of Plus Disease in Retinopathy of Prematurity

R. Manjunatha
Asst. Professor,
Dept. of ECE,
PESCE, Mandya

Registration for PhD on May 2014

University /Branch: MOU, E&C Engg.
Award of Phd Degree: 25th Sep. 2019

Dr. H.S. Sheshadri
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Dept. of ECE,
PESCE, Mandya

Abstract: Retinopathy of prematurity(ROP) is an eye disease typically diagnosed in NICU (Neonatal Intensive Care Unit) admitted prematurely-born infants due to oxygen therapy. ROP is characterized by disorganized growth of retinal blood vessels, which is challenging to be diagnosed due to the miniature anatomical details in neonatal retinal images. The timely diagnosis and treatment will result in proper restoration of vision.

This research work proposes algorithm for quantifying tortuosity and vessel width dilation, as diagnostic features of ROP. The algorithm proposed here in this thesis is focused on boundary extraction and segmentation of the retinal vessels, which makes the computations more reliable. A differential geometrical method for measuring tortuosity has been discussed in this thesis. The results indicate the effectiveness of the method in measuring tortuosity of retinal vessels hence detection of ROP Plus.
The work was appreciated by the examiners at the viva examination held on 25th Sept 2019
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Manjula A V
Asst. Professor
Dept. of ECE.
NIEIT, Mysuru

LOW COMPLEXITY AND HYBRID PEAK TO AVERAGE POWER RATIO REDUCTION TECHNIQUES IN OFDM SYSTEM

Registration for PhD on May 2014
University /Branch: MOU, E&C Engg.
Degree: 25th Sep. 2019

Dr. K.N. Muralidhara
Professor
Dept. of ECE.
PESCE Mandya

Abstract: One of the major drawback of OFDM system is relatively high Peak-to-Average-Power Ratio (PAPR), which tends to reduce the power efficiency of the Radio Frequency Amplifier. In order to minimize the PAPR ratio this thesis focuses on PAPR reduction techniques. Extensive investigation of different PAPR reduction techniques has been made. This theses proposes a new low complexity Adaptive Mapping and Modified Adaptive Mapping technique. In the SLM phase sequences are generated randomly and these phase sequences are multiplied with OFDM signal to generate a set of new candidate signal.

Where as in Adaptive Mapping phase sequences are generated from the phase sequence generator which is obtained using the proposed algorithm. These phase sequences are multiplied with the OFDM signal, this results in new set of candidate signals. From this signal with lowest PAPR is selected for transmission. The proposed Adaptive Mapping requires only one IFFT operation at the transmitter when compared to SLM. Simulation using MATLAB carried out to analyze PAPR using Complimentary Cumulative Distribution Function (CCDF) plots. The computational complexity analysis is carried out for several number of phase sequences and number of sub-carriers. The Adaptive Mapping and SLM both requires phase sequence information to be sent as side information to the receiver. Modified Adaptive Mapping reduces the number of bits of side information and better PAPR is achieved without degradation in BER. This thesis also focuses on hybrid PAPR reduction techniques in which two or more PAPR reduction techniques are used to achieve better PAPR performance. The Discrete Cosine Transform and Commanding based OFDM system is proposed to reduce PAPR ratio. This technique provides around 7 dB reduction compared to conventional OFDM system with slight degradation in BER performance. The hybrid Zadoff chu sequence transform and SLM based system is proposed which provide better PAPR and BER compared to SLM and OFDM system. The ZCT and PEC based OFDM system is proposed to reduce the PAPR ratio and is evaluated for both AWGN channel and Rayleigh channel - results are analyzed and discussed

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EXPERIMENTAL AND NUMERICAL INVESTIGATION ON FLUID FLOW PERFORMANCE OF MULTI HOLE ORIFICE

Registration for PhD on 17th Oct 2013
University /Branch: VTU Mech Engg.
Award of Phd Degree: 30th Sep. 2019

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Abstract: At present, flow measurement is an important and significant task in distributing and regulating the fluids (water, gases, petroleum etc) in different sectors. An easy, accurate and economical flow measurement technique is expected for better management of fluids flowed through pipes. Orifice plates are most commonly used devices for the flow measurement. The accuracy of measurement is directly related to the profit of the industries. In addition to understanding the flow through a single-hole orifice, this study has assessed experimentally and numerically the possibility of using multiple-hole orifices as an alternative. To understand the flow patterns and its impact on pressure drop, two different configurations were investigated to identify the optimal orifice geometry. Apart from the flow characteristics, an attempt is made to compute the acoustic characteristics as well. Such study certainly helps to tailor the orifice plates as per the need of different applications which could pave the way for commercialization. The present work yields some superior characteristics of multi whole plates and are better alternative for conventional orifice plate. It was observed that the number of holes, whole diameter configuration/orientation of the holes and aspect ratio influences the discharge coefficients. Simulation results show that the net effect of increasing the number of holes is found to decrease the noise level. Arrangement of holes also affects the noise generated when multi hole orifice are used as a throttling element. A Multi hole arranged in square pattern seems to be better alternative for noise reduction.
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H. Sathishkumar
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A NOVEL ROBUST CONTROLLER FOR VECTOR CONTROLLED INDUCTION MOTOR DRIVE

Registration for PhD on 19th May 2014
University /Branch: MOU, E&E Engg.
Award of Phd Degree: 30th Sep 2019

Dr. S.S.Parthasarathy
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Abstract: Three phase induction motors are necessary for most of the electrical industries. For uninterrupted operation of electrical industries, induction motors must be equipped with advanced speed controller. Ravicab cables private limited is one of the most important cable industry where three phase induction motors are widely used. The mentioned industry is located at Bidadi, Ramanagara district, Karnataka. This industry uses various three phase induction motors namely 1hp, 3hp, 5hp, 15hp and 150hp.Even though various motors are used in this industry, 3hp and 150hp motors are playing the vital a role to manufacture the single and four core cable. As such, 3hp and 150hp three phase induction motor is only considered for the study and analysis. Therefore, outcome of this thesis (MRAC based speed controller) will be useful for this cable industry.

PLANNERS FOR INSTITUTIONAL ACADEMIC ACTIVITIES

Sl. No.	Faculty	Academic activities
1	Dr. K Narasimhachary	Controller of Examination
2	Dr. S L Ajit Prasad	Dean (Research)
3	Dr. Nagarathna	Dean (Academic)
4	Dr. N L Muralikrishna	Deputy Controller of Examination
5	Prof. M J Anand	Deputy Dean (Research) & Coordinator - MOOCs, ICT, NPTEL
6	Dr. D R Umesh	Deputy Dean (Academic) Nodal Officer-Procurement
7	Dr. Shivalingegowda	Coordinator - NAAC, IQAC
8	Dr. R Girish	Training & Placement Officer
9	Dr. B S Shivakumar	Dean (I I I Cell)
10	Dr. L Prasannakumar	Warden, Boys Hostel, Coordinator Bio-fuel center Environmental - Coordinator (TEQIP-III)
11	Dr. M L Anitha	Warden, Girls Hostel
12	Dr. B Shanmukha	Warden, VSVM Boys hostel
13	Prof. T M Devegowda	Students Welfare Officer
14	Dr. Mahesh Kaluti	Coordinator - GATE Training, NIRF Academic Nodal Officer (TEQIP-III)
15	Dr. S Vinay	Coordinator - Business Incubator, ARIIA
16	Prof. M C Girish Babu	Coordinator - AICTE activities
17	Prof. S K Shivashankar	
18	Dr. Somashekhar	Coordinator - Media
19	Prof. A S Mahesh	
20	Dr. Puneeth Kumar M B	Coordinator - Website

Dr. H. V. Ravindra
Principal & TEQIP Director

Prof. B Dinesh Prabhu
TEQIP Coordinator

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