

Department of Electronics  
**Report for Akansha: 2019-2020**

**1. Curricular and cocurricular Activities:**

**A.** Department has organized a **Curriculum Enrichment Value added course on "Internet of Things (IOT) using Raspberry Pi"** for the students of S.Y. and T.Y. with Electronics and Computer Sc. background. Thirteen students participated in the course. Three students have completed the course of which two were from Fergusson College, Pune. Mrs Vaishali Salunke designed and worked as a coordinator for the course. In house faculty worked as resource.

**B.** Thirty hours **Skill based course on "Modeling and Simulation using MATLAB"** was run for **F.Y.B.sc(Computer Science) students**. Twenty students successfully completed the course. Dr. Mrinalini Bhadane designed and worked as a coordinator and resource for the course.

**C. Guest Lecture :** Mr. Sandeep Agashe, from Sandeep Agency and Consultancy delivered lecture on "**Hardware and Software Interface using Embedded C**" on 26<sup>th</sup> February 2020. Hundred and Forty Eight **Students** of second year attended the guest lecture.

**D. Industrial Visit/ Training/Study Tour:**

- Ms.Vrushali More, the student of F.Y.B.Sc.(Comp.Sc.) undergone Industrial Training for one week at Techno Four Electronics Pvt.Ltd., Pune
- F.Y.Comp.Sc.students visited Inter University Center for Astronomy and Astrophysics, SPPU Campus, Pune on Science day, 28<sup>th</sup> Feb 2020 to explore practical approach of Astrophysics .


**E. E-Content/ICT based Development activities:**

- Dr.Mrunalini Bhadane started You tube channel 'Reliable Solutions' to promote e-learning.
- Mrs. Vaishali Salunke uploaded new module as "Introduction to 8051 Microcontroller ,Part-1 -Concept of SOC" on YouTube via link\_ <https://youtu.be/HBjNT8g7Oqg>
- Dr.Mrunalini Bhadane and Mrs.Pradnya Pathakji conducted On\_line quiz for F.Y.B.Sc.(Comp.Sc.) students using Moodle platform.

Φ.

**2. Extracurricular Activities:**

- a. **E-Techno Fair**, an Intercollegiate activity sponsored by Board of Students' Development ,SPPU ,Pune was organized on 8<sup>th</sup> February 2020 Purpose behind the activity was to create a platform for the students to showcase their technical skills, fundamental and advanced knowledge in Electronics. Different games like Quiz in the

  
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form of **Snake and Ladder**, PC assembling Competition -**Assemble It**, **Tech game** to test basic technical skills in electronics, Students' Views on Technical Developments as **Tech-Talk** were arranged. Six participants from Kaveri and Christ College Pune and Sixteen participants from our college enjoyed the academic event. **Prof. Swati Sarwate from St. Mira College** ,Pune worked as a **judge** for the competitions. **Mrs. Vaishali Salunke coordinated** the event.

- b. **Project, Poster presentation** was organized at department on 5<sup>TH</sup> February 2020, as part of Science Exhibition activity "ANUBHUTI" of Science Association of the college. Fourteen Students participated in the exhibition . Prototype of Green House, Air Pollution Detector, Real Time Route Clearing System for Ambulance in Emergency situation using Swarm UAV System, Enhance Visually Impaired Persons' Ability to realize the world through Electronic Assistance: Electronic Stick for the Blind were the innovative projects selected for **Regional Science Project, Poster** competition held in our college and sanctioned under exhibition scheme of DBT-CTEP cell of Department of Biotechnology Govt. Of India.
- c. **Seventeen students displayed their ideas on a platform of Science Fair** , an intercollegiate science Project and Poster competition supported under DBT funds held in our college , on 31<sup>ST</sup> August 2019 .


### **3. Extension Activity:**

- a. Dr. Varsha M. Bapat was invited as a Design Mentor for Smart India Hackathon 2019 for Hardware Edition under Surveillance and Security Section, held at IIT Roorkee ,organized by MHRD Innovation Cell during 6<sup>th</sup>-12<sup>th</sup> July 2019. Two teams under her guidance won 2<sup>nd</sup> and 3<sup>rd</sup> prize in this competition
- b. In-house Public Address System is updated and implemented in the college campus by Dr. Mrinalini Bhadane .
- c. Dr. Varsha M. Bapat was part of evaluation process for Smart India Hackathon online evaluation process under Smart cities section during April 2020

### **4. Staff achievements:**

- A. **Degree of Ph.D.** : Department of Electronics, Savitribai Phule Pune University awarded **Mrs. Mrinalini Bhadane with Ph.D degree** on 3<sup>rd</sup> Feb 2020. Prof Suresh Gosavi guided her research. The title of the thesis is "Development of Passive Micromixer for Lab-On-Chip Application"

### **B. Paper Publication:**

  
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- a. Dr. Varsha M. Bapat presented a paper on “ **Use of Light Weight UAV in IoT based Animal Diversion System for Crop Protection**” at **International Conference Emerging Technologies: Micro to Nano 2019** during 16<sup>th</sup>-17<sup>th</sup> December 2019 at SPPU, Pune.
- b. Mrs.Pradnya Pathakji: Research paper titled “**Effect of Reflection and Absorption Properties of Materials in Designing Application Based Illumination System**” is published in the Journal of Emerging Technologies and Innovative Research. ISSN : 2349-5162) Journal No: 63975, Volume 6 Issue 5 , May – 2019.

**C. Poster Presentation:**

- a. Mrs. Vaishali Salunke presented a poster titled “**Study the Feasibility to use Fruit Waste for Electrical Energy Storage**” in an **International Conference “Emerging Trends –Micro to Nano , ETMN-2019”** organized by Department of Electronics ,Savitribai Phule Pune University on 16<sup>th</sup> and 17<sup>th</sup> December 2019.
- b. Mrs.Pradnya Pathakji presented a poster at **International Conference** organized by Department of Electronics ,SavitribaiPhule Pune university ‘Emerging Trends from Micro to Nano-ETMN-2020’ titled as “**Design of A Smart In-door Tunable Lighting System to Enhance Working Efficiency of People In Static Artificial Light Environment**”

**D. Other Achievements**

**1. Dr. Mrinalini Bhadane:**

- a. **Invited** as a Judge for State level Project Competition at D.Y.Patil College of Arts, Science and Commerce, Pimpri on 29<sup>th</sup> January 2020.
- b. Completed **Swayam Online Refresher Course** on ‘**Big Data Analytics for Smart Grid**’

**2. Dr. Varsha Bapat:**

- a. Invited as a resource for Guest Lecture on “ **IOT in Healthcare applications**” organized by Abasaheb Garware College, Pune on 21<sup>st</sup> December 2019.
- b. Invited as a resource for Guest Lecture on “ **IOT and applications**” organized by Modern College, Shivajinagar, Pune on 17<sup>th</sup> February 2020.
- c. As a member of Board of Studies in Electronic Sc. SPPU, Pune , was involved in the design of Choice based Credit System F.Y.B.Sc( Computer Sc) and S.Y.B.Sc( Computer Sc) courses. She was also involved in F.Y.B.Sc( Comp. sc) Electronics Practical Slip designing as an Incharge.

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- d. Dr. Varsha M. Bapat was appointed as a Board of Studies member for Electronics Subject at Modern College Shivajinagar, Pune-5 from June 2019.
  - e. Dr. Varsha M. Bapat has worked as a Judge for the event “ Assemble It” under the Interaction Event organized by Computer Sc. Department in January 2020.
3. **Mrs. Vaishali Salunke :**
- a. Attended online webinar on “**Mobile based smart E-Content development for online teaching**” conducted during 15-25 April 2020 by Knowledge Bridge.
  - b. Actively participated in a webinar on “**Advanced Outcome based Education ,Identifying weaker students and Remedial Actions**” on 9<sup>th</sup> May 2020 conducted by InPods Ed-tech .
4. **All the six members** of Electronics department have **attended a webinar on “Outcome based Education ”** on 4<sup>th</sup> April 2020 conducted by InPods Ed-tech .
5. Five members from Electronics have attended **the Hands on Training on “LMS System for Online Teaching and Learning management”** at organized by Mograsys pvt. Ltd., Magarpatta City, Pune on 28<sup>th</sup> ,29<sup>th</sup> June 2019.

### **5. Students' Achievement:**

Following students secured prizes in an Intercollegiate Project and Poster Competition:

- a. Ritesh Rai, Shubham Chavan and Loveprit Singh of FY.B.Sc (Computer Science) won **First prize in Intercollegiate Project competition** at Sarhad College of Arts, Science and Commerce College, Pune and **Third cash Prize** of Rs 5000 in **State level Science Project Competition** held at Jadhavar College of Science, Pune for their project titled **Air Pollution Detector** .
- b. Vishesh Malik ,Mr.Laxminarayan Sharma, Mr.Prathamesh Kori won the **First prize** at Ramkrishna More College in the Poster and Model Competition on theme of Science and Technology For Sustainable Development under DBT STAR College Scheme and **Third prize at** BaburaojiGholap College, Sangvi Pune in ‘Students Competition and Platform for Technological Challenges and Applications’ for their **Model of Prototype of Automated Green House.**
- c. Gaurang Potdar , Vaishnavi Yedoni students of T.Y.B.Sc. Physics won **Second prize** in Applied section of U.G. level, Regional Science Project and Poster competition, “ANUBHUTI” held in our college under DBT CTEP scheme of exhibitions of DBT,Govt. of India on 5<sup>th</sup> February,2020 for the project titled “Real Time Route Clearing System for Ambulance in Emergency situation using Swarm UAV System”.

  
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- d. Parth Jathar won **consolation prize** in inter-collegiate Poster competition, ' Science Fair' organized in Modern College Of Arts, Science and Commerce, Ganeshkhind, Pune

*Salunke*

Mrs. Vaishali S. Salunke  
Head, Department of Electronics



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