

## Department of Computer Engineering

### 17. List of Research Projects / Consultancy Works:

Number of Projects carried out , funding agency , Grant received (in 2017-2018) : 01

| Sr.No. | Title of Grant  | Investigators                              | Period of Grant | Scheme                     | Sanctioned Amount (INR) |
|--------|---|--|-----------------|----------------------------|-------------------------|
| 1      | Handwritten Character recognition for Devnagari script using density based clustering | Dr.Sunita Jahirabadkar<br>Dr.Sandhya Arora | 2016-2018       | SPPU,BCUD Research Funding | 80,000                  |

- Publications (if any) out of research in last three years out of master projects (for 2017-18, 2016-17, 2015-16)

#### Count Summary Academic Year 2017-2018

| Sr.No. | Total Count | Journal | National Conference | International Conference |
|--------|-------------|---------|---------------------|--------------------------|
| 1.     | 12          | 02      | 01                  | 09                       |

#### List of Faculty Research Publication 2017-2018

| Sr. No. | Author             | Type of Journal / Conference  | Topic Name   | Issue/ date           | Vol. |
|---------|--------------------|---|--|-----------------------|------|
| 1.      | Dr. Supriya Kelkar | International Conference on Information, Communication, Instrumentation and Control - 2017 (ICICIC-`17) | Leader based adaptive fault diagnosis algorithm for distributed system | 17th-19th August 2017 | -    |

|   |                     |  |  |  |   |
|---|---------------------|--|--|--|---|
| 2 | Dr. Supriya Kelkar  | 6th International Conference on Advances in Computing, Communications and Informatics (ICACCI) -2017   | Coordinator-based adaptive fault diagnosis algorithm for distributed computing systems       | 13th-16th September 2017 at Manipal Institute of Technology, Manipal                                 | - |
| 3 | Dr. Supriya Kelkar  | International Conference on Advancement in Engineering, Applied Science and Management (ICAEASM-2017)  | An insight into performance and security bugs in IoT operating systems : A Literature Review | C-DAC, (Mumbai)<br>Centre for Development of Advanced Computing<br>Mumbai, (India)<br>18th June 2017 | - |
| 4 | Ms.Sarika Hulyalkar | 3rd International Conference on Computing, Communication and Automation (ICCUBEA-2017) at PCCOE, Pune  | Optimal Solution Generation from Reviews and Micro-Reviews using Greedy Algorithm            | 17 and 18 August 2017  | - |
| 5 | Ms.Jyoti Langhi     | 7th International Conference on Engineering Technology, Science and Management Innovation (ICETSMI-2017) organized by The Institution of Electronics and Telecommunication Engineers (IETE) New Delhi , India. | "Distributed Crawler for Detection and Removal of DUST using DUSTER"                         | ISSN 2394 – 3386,<br>Issue 7 ,<br>Volume 4<br>July 2017  | - |

|    |                        |  |   |   |         |
|----|------------------------|--|---|---|---------|
|    |                        | Published in International Journal of Engineering Technology Science and Research  |   |   |         |
| 6  | Mrs. Chhaya Gosavi     | 2nd International Conference on Intelligent Computing and Communication, ICICC, MITCOE, Pune, 2017                                     | “ Analysis of Blind Image Watermarking Algorithms”                                      | August 2-4, 2017                          | -       |
| 7  | Mrs. Chhaya S. Gosavi  | Indian Journal of Science and Technology(IJST) (Web of Science (indexed)   | "Secure, Robust Video Watermarking to Prevent Camcorder Piracy"                         | Issue 18, pp.1-10, 2017                   | Vol 10, |
| 8  | Dr.Sunita Jahirabadkar | INNOVATION-2017 (Regional Research Conference) in association with SPPU organized at PICT,Pune   | “Handwritten Character recognition for Devnagari script using density based clustering” | 15th November 2017                        | -       |
| 9  | Dr.Sandhya Arora       | INNOVATION-2017 (Regional Research Conference) in association with SPPU organized at PICT,Pune   | “Handwritten Character recognition for Devnagari script using density based clustering” | 15th November 2017                        | -       |
| 10 | Dr.Sunita Jahirabadkar | International conference on Emerging Trends in Science, Engineering and Technology (ICETSET-2018) at D.Y.Patil College of Engineering, | “A Systematic review of near duplicate  | 8th May 2018 - 9th May 2018, published in | -       |

|    |                        |  |  |   |   |
|----|------------------------|--|--|---|---|
|    |                        | Akurdi,Pune in association with Labtech Innovations.   | video retrieval techniques”  | International Journal of Pure and Applied Mathematics<br>Volume 118<br>No. 24 2018<br><br>ISSN: 1314-3395 (on-line version) |   |
| 11 | Dr.Sunita Jahirabadkar | Springer’s International Conference on Data and Information Sciences (ICDIS-2017), 3-4th November 2017 at Indira Gandhi National Tribal University, Amarkantak, M.P., India. | “An insight into Theory-Guided Climate Data Science – A Literature Review” | Published in Springer Book Series “ Lecture Notes in Networks and Systems 38”, vol-1  | - |
| 12 | Dr.Sandhya Arora       | International Journal Business Intelligence and Data Mining  | Recognition of sign Language using Image processing                        | Vol.13,<br>Nos.1/2/3<br>2018<br><br>(Published in July-2017)  | - |

**Count Summary**  
**Academic Year 2016-2017**

| <b>Sr.No.</b> | <b>Total Count</b> | <b>Journal</b> | <b>National Conference</b> | <b>International Conference</b> |
|---------------|--------------------|----------------|----------------------------|---------------------------------|
| <b>1.</b>     | <b>12</b>          | <b>09</b>      | <b>-</b>                   | <b>03</b>                       |

**List of Research Publications in 2016 – 2017**

| <b>Sr. No</b> | <b>Author</b>                         | <b>Name of Journal / Conference</b>      | <b>Topic Name</b>   | <b>Vol.</b>         | <b>Issue/date</b> |
|---------------|---------------------------------------|--|---|---------------------|-------------------|
| 1.            | Mrs. Aparna Hajare                    | IJLTEMAS                                 | Innovation Management Software: A Platform to Innovate More Effectively   | Volume V, Issue VI, | June 2016         |
| 2.            | Mrs.Shubhangi Tikhe, Mrs. Anjali Naik | Indian Journal of Science and Technology | Multipoint search algorithm for automatic segmentation of tooth from digital intra oral periapical radiographs                          | Volume 9, Issue 21  | 16 June 2016      |
| 3.            | Mrs.Anjali Naik, Mrs.Shubhangi Tikhe  | Indian Journal of Science and Technology | Automatic segmentation of lower jaw and mandibular bone in digital dental panoramic radiographs   | Volume 9, Issue 21  | 16 June 2016      |
| 4.            | Mrs.Anjali Naik, Mrs.Shubhangi Tikhe  | Indian Journal of Science and Technology | Designing a Feature Vector for Statistical Texture Analysis of Mandibular Bone  | Volume 9, Issue 33  | 14 Sept 2016      |
| 5.            | Shubhangi Tikhe, Anjali Naik          | Indian Journal of Science and Technology | Classification of Digital Intra Oral Periapical Radiographs by Selecting a Feature Vector using Hybrid Method for Selection of Features | Volume 9, Issue 33  | 14 Sept 2016      |
| 6.            | Mrs. Neeta Maitre                     | IJPCBS                                   | Prediction Of Bacterial Infection in Cotton Using Expressed Sequence tags   | Vol. 6, Issue 4     | Oct 2016          |

| Sr. No            | Author                  | Name of Journal / Conference  | Topic Name   | Vol.            | Issue/date             |
|-------------------|-------------------------|---|--|-----------------|------------------------|
| 7.                | Mrs. Neeta Maitre       | IJIET   | Expressed Sequence Tags and Gene Prediction  | Vol 7, Issue 4  | Dec 2016               |
| 8.                | Ms.Sarika Hulyarkar     | IJIRCCE   | Optimal Solution Generation from Micro-reviews using Greedy Approach                             | Vol 4, Issue 12 | December 2016          |
| 9.                | Ms.Jyoti Langhi         | IJIRCCE   | Detection and Removal of DUST : Duplicate URLs with similar text using DUSTER                    | Vol 5 , Issue 1 | January 2017           |
| <b>Conference</b> |                         |   |  |                 |                        |
| 10.               | Mr. Prakash Date        | International Conference on Advanced Signal Processing (CASP 2016), sponsored by IEEE & IET held in CCOEW | Proximity Based and Security Aware Rewarding System for Mobile Marketing                         |                 | 10th & 11th June 2016. |
| 11.               | Mrs. Madhuri Tasgaonkar | International Conference on Signal and Information Processing (IconSIP2016) at SGGS, Nanded               | Using Differential Morphological Profiles for Micro-aneurysm Detection in Diabetic Fundus Images |                 | 6th to 8th Oct 2016    |
| 12.               | Mr. Ravikiran Holkar    | ICSP 2016 at Samrat Ashok Technological Institute ,Vidisha (M.P.)   | Identification & Classification of Cotton Plant Leaf Diseases using Image processing Techniques  |                 | Nov 2016               |

**Count Summary**  
**Academic Year 2015-2016**

| <b>Sr.No.</b> | <b>Total Count</b> | <b>Journal</b> | <b>National Conference</b> | <b>International Conference</b> |
|---------------|--------------------|----------------|----------------------------|---------------------------------|
| <b>1.</b>     | <b>07</b>          | <b>03</b>      | -                          | <b>04</b>                       |

**List of Research Publications in 2015 – 2016**

| <b>Sr.No</b>      | <b>Author</b>           | <b>Name of Journal/ Conference</b>                                 | <b>Topic Name</b>  | <b>Issue/ date</b>   | <b>Vol</b>                                      |
|-------------------|-------------------------|--|--|----------------------|---|
| 1                 | Mrs. Pranjali Deshpande | International Journal of Computer Science and Information Security | Methodology of Assigning Musical Notations to Sanskrit Verse   | Issue 6<br>June 2015 | Vol. 13   |
| 2                 | Mrs. Chhaya S. Gosavi   | International Journal of Computer Applications                     | Video Authentication and Copyright Protection Using Unique Watermark Generation Technique and Singular Value Decomposition | Aug 2015             | (0975–8887)<br>Volume 123 –<br>No.3,<br>pp. 1-5 |
| 3                 | Mrs. Chhaya S. Gosavi   | Global Journal of Pure and Applied Mathematics                     | Watermarking for Video using single channel block based schur decomposition  | Feb 2016             | Vol 12,<br>Issue 2                              |
| <b>Conference</b> |                         |  |  |                      |   |

| Sr.No | Author                                 | Name of Journal/ Conference   | Topic Name  | Issue/ date           | Vol   |
|-------|--|---|---|-----------------------|---|
| 4     | Mrs. Chhaya S. Gosavi                  | Second International Conference On Advances in Computing, Control And Networking – ACCN, Copyright © Institute of Research Engineers and Doctors, USA | Comparative Performance Analysis of Video Watermarking in DCT, DCT-SVD Domains                | Aug 2015              | Proc. Published in ISBN: 978-1-63248-073-6 doi: 10.15224/978-1-63248-073-6-86                               |
| 5     | Mrs. Neeta P. Maitre                   | International conference on Innovative Research in Biotechnology , Biomedical Sciences, Bioinformatics and Stem Cell Applications                     | Expressed sequence tags and gene prediction in cotton genome                                  | 30th Jan 2016         | Proc. of conference : International Journal of Basic and Applied Biology (Volume 3- Issue 1, ISSN:2349-5820 |
| 6     | Mrs. Shubhangi Tikhe, Mrs. Anjali Naik | 6th IEEE International Advance Computing Conference, Bhimavaram andhra pradesh  | Algorithm to Identify Enamel Caries and Interproximal Caries Using Dental Digital Radiographs | 27-28th February 2016 |   |
| 7     | Mrs. Anjali Naik, Mrs. Shubhangi Tikhe | 6th IEEE International Advance Computing Conference, IEEE Conference Bhimavaram andhra pradesh  | Algorithm to Detect Fracture from OPG Images Using Texture Analysis                           | 27-28th February 2016 |   |



- **Industry Linkage :**

- 1. Citi-Bridge : CitiBridge 2018**

Citi, a renowned multinational company and a world leader in the banking sector, has designed a unique program “Citi Bridge” for select 100 students from Maharshi Karve Stree Shikshan Samstha’s (MKSSS) Cummins College of Engineering for Women, Pune. The objective is to promote women in technology through skill development.

The Citi Bridge Program aims to promote entry level women for careers in technology and banking by imparting practical knowledge and industry perspectives from technology experts at Citi. The structured, 100-hour program includes topics such as basics of banking and finance, technology and functional training, professional development and technical assignments. The participants also receive an opportunity to apply to Citi as part of the Bank’s Citi Analyst Program.

After the stupendous success of the first Citi Bridge program, The second Citi Bridge program for the current batch of Third year Computer and IT students of MKSSS's Cummins College of Engineering for Women was rolled out in January 2018 and has successfully completed.

The training was conducted at Citi’s office in Pune, which houses operations and technology teams. The technology experts from Citi became mentors on the assignment work. The participants were extremely engaged through the program. A graduation ceremony was held on 21<sup>st</sup> March 2018 which marked the successful completion of the second edition of Citi Bridge Program. Preplacement offers have been made by Citi to some of the participants

- 2. Guest Lectures/Workshops by Industry in 2017-2018 :**

Guest Lectures Total Count = 14

Wokshops by Guests =04

## Details of Expert Lectures arranged in 2017-2018

| Sr.No | Name of the faculty Coordinator   | Name, Designation and Company of the expert faculty   | Topic  | Date                                     | Target Audience Students |
|-------|---|---|--|--|--------------------------|
| 1     | Dr. Sunita Jahirabadkar   | Dr. Parag Kulkarni, Director (iKnowlation Research Labs)  | "YD and Innovation"                                | 12 <sup>th</sup> Sep 2017                | SY Computer students     |
| 2     | Rakhi Dongaonkar  | Ms. Stacey Lacy, Managing Director at CitiCorp  | Women in Technology                                | 20 <sup>th</sup> Sep 2017                | TE Comp and IT students  |
| 3     | Dr. Sandhya Arora, Prof Swati Shirsath  | Mr. Sachin Bapat, process managed, SQS India Infosystem Pvt Ltd   | Software testing: Contemporary and emerging trends | 25 sept 2017                             | TE Comp                  |
| 4     | Prof. Hitendra Khirnar, Prof. Rakhi Dongaonkar, Prof. Nilofer Atar, Prof. Jyoti Bhangre | Amol Dhondse & Anand Pikle - Lead IT architect at IBM   | Big Data and Hadoop                                | 22 <sup>nd</sup> Sep 2017<br>2:00-3:30pm | TE Comp                  |
| 5     | Prof. Hitendra Khirnar,   | Amol Dhondse & Anand Pikle - Lead IT architect at IBM   | Cognitive Computing and Robot demo                 | 22 <sup>nd</sup> Sep 2017<br>3:30-5:00pm | BE Comp                  |
| 6     | Prof. M. P. Deore S.P Mengale.  | Mahendra Murkute   Manager   Tax and Regulatory Services - Infrastructure, Industrial & Consumer, Ernst & Young LLP | Importance of Engineering Economics                | 25 sept 2017                             | TE Comp                  |
| 7     | Prof. S.V.Tikhe, Prof. M. P. Deore  | QAIDJOHAR ZOEB JAWADWALA, IT Consultant   | "Cisco Packet Tracer and Router Configuration"     | 5 <sup>th</sup> Oct 2017                 | TE Comp                  |
| 8     | Dr. S M Kelkar  | Ms. Sonali Kakade   | Personality development                            | 4 Jan 2018                               | TE Comp                  |

|                 |                         |  |                                     |               |                   |
|-----------------|-------------------------|--|-------------------------------------|---------------|-------------------|
| 9               | Dr. S M Kelkar          | Ms. Meghana Vaidya   | Leadership                          | 9 Jan 2018    | TE Comp           |
| 10              | Prof. H S Khairnar      | Amol Dhondse, Sr. Solution Architect, IBM                                      | AI and Machine Learning             | 20 feb 2018   | BE Comp and BE IT |
| 11              | Prof. H S Khairnar      | Kranti Athalye, HR, IBM  | Block Chain and Cognitive Computing | 20 feb 2018   | BE Comp and BE IT |
| 12              | Nilofer Attar           | Mr. Santosh Randive, Test manager, Brightrock insurance services, South Africa | Software testing tools              | 26 March 2018 | BE Comp           |
| 13              | Dr. S M Kelkar          | Ms. Sonali Kakade  | Personality development             | 4 Jan 2018    | TE Comp           |
| 14              | Dr. S M Kelkar          | Ms. Meghana Vaidya   | Leadership                          | 9 Jan 2018    | TE Comp           |
| <b>WORKSHOP</b> |                         |  |                                     |               |                   |
| 1               | Dr. Sunita Jahirabadkar | Kanchan Kamat, Anagha Bhave  | Data Management                     | 5 Feb 2018    | BE Comp           |
|                 |                         | Manoj Singh  | Data Analytics                      | 6 Feb 2018    | BE Comp           |
|                 |                         | Unnikrishnan Menon, Sunaina Miglani  | Data Reporting                      | 7 Feb 2018    | BE Comp           |
|                 |                         | Kanchan Kamat, Anagha Bhave, Manoj Singh, Unnikrishnan Menon, Sunaina Miglani  | Case Study                          | 8 Feb 2018    | BE Comp           |

### 3. Industrial Visits (in 2017-2018): 03

This year , the department had organized Industrial visit to Three IT companies on various days. These companies are visited as Tech Mahindra (01 Feb 2018),PSL (02 Feb 2018), DELL EMC(05 Feb 2018). In all 232 students from TE visited the various companies along with faculty members, Prof. Anjali Naik, Prof. Dr. Sandhya Arora,Prof. Hitendra Khairnar, Prof. Sakshi Mandke, Prof.Pranjali Deshpande, Prof.Mahendra Deore, Prof. Vaishali Salgar, Prof. Nutan Deshmukh, Prof. Hitendra Khairnar,Mr. Harshad Mhasawade, Ms. Deepali Nagrale, Ms. Namita Gajmal, Ms. Vrushali Shinde . These visits were arranged and coordinated by Prof. Pranjali Deshpande.

#### Industrial Visits 2017-18

| Sr No | Week         | Industry Visited   | Total Number of Students Visited | Students from | Location  | Name of Faculty Visited  | Organized By       |
|-------|--------------|--------------------|----------------------------------|---------------|-----------|--|--------------------|
| 1     | 1. Feb. 2018 | Tech Mahindra      | 65                               | TE            | Hinjewadi | Dr. Sandhya Arora<br>Prof. Vaishali Salgar<br>Ms.Vrushali Shinde<br>Ms.Namita Gajmal             | Pranjali Deshpande |
| 2     | 2. Feb. 2018 | Persistent Systems | 125                              | TE            | Hinjewadi | Mahendra Deore, Hitendra Khairnar,Anjali Naik,Deepali Nagrale, Nutan Deshmukh, Harshad Mhaswade, | Pranjali Deshpande |
| 3     | 5. Feb. 2018 | DELL EMC           | 42                               | TE            | Hinjewadi | Sakshi Mandke, Pranjali Deshpande  | Pranjali Deshpande |

- **MOUs with Industries (Minimum 3) :** NIL