

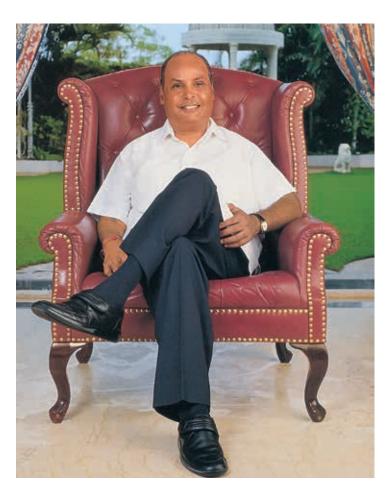


### Dhirubhai Ambani Institute of Information and Communication Technology

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Shri. Dhirubhai Hirachand Ambani

(28th December, 1932 – 6th July, 2002)

Founder Chairman, Reliance Group Founder Chairman, DA-IICT





### Contents

| Board of Governors                       | 6  |
|--|----|
| Director's Page                          | 7  |
| About the Institute                      | 8  |
| Academic Programs                        | 10 |
| Continuing Education Program             | 16 |
| Placements and Internships               | 17 |
| Fourteenth Convocation                   | 22 |
| Research and Development                 | 24 |
| Workshops, Special Lectures and Visitors | 28 |
| Faculty Publications                     | 29 |
| Awards and Professional Activities       | 40 |
| Faculty and Staff Updates                | 54 |
| Student Activities and Achievements      | 55 |
| Alumni Activities and Achievements       | 62 |
| Resource Centre                          | 63 |
| Infrastructure                           | 65 |
| Annexures                                | 66 |

- 1. Management
- 2. Theses, Projects and Reports
- 3. Faculty
- 4. Staff

### Board of Governors



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Prof. Sanjeev Gupta Dean (Research & Development), DA-IICT, Gandhinagar

Secretary

Shri Soman Nair Executive Registrar, DA-IICT, Gandhinagar



### Director's Page



The year 2017-18 witnessed planning for another phase of institutional development activities covering research, teaching and infrastructure facilities. The faculty deliberated on designing and offering new teaching programs and collaborating with national institutions on joint teaching and research programs. These deliberations led to an international collaborative partnership in research in Artificial Intelligence with Bennett University, Greater Noida, Uttar Pradesh; preliminary designs of an MTech Program in Computer Science with Indian Institute of Technology Jammu, Kashmir and another MTech Program in Electronics and Communication Engineering with specialization in Wireless Communication and Embedded Systems with C. R. Rao Advanced Institute of Mathematics, Statistics, and Computer Science, Hyderabad, Telangana, planned to offer from the academic year 2019-20. The infrastructure facilities planned include up-gradation of computing facilities, a new hostel for men with 238 rooms and an additional hostel block for women having 36 rooms.

The Institute makes its best efforts in nurturing and supporting our dedicated faculty, staff and talented students to achieve their full potential. The accomplishments narrated in the following pages are the result of the commitment of faculty, staff and students. I am grateful for the ardent support and encouragement I have received from the Board of Governors, Reliance ADA Group, Central and State Governments, our recruiters, faculty, staff and students in managing the affairs of the Institute

K.S.Dasgupta Director

### About the Institute

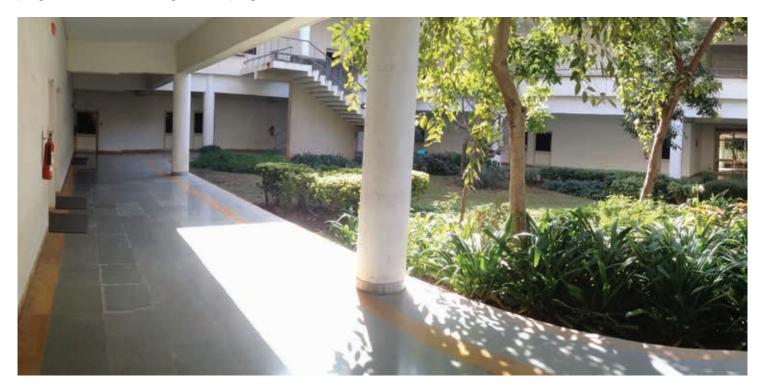
### THE INSTITUTE

Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, was founded in 2001 by the legendary visionary Industrialist, Shri Dhirubhai Hirachand Ambani. The Institute's vision is 'to help build a knowledge-led society founded on intellectual competitiveness for global leadership.' Registered as a Society under the Societies Registration Act, 1850 and Bombay Public Trust Act 1950, an Act of the Gujarat State Legislature in 2003 conferred upon DA-IICT the status of a University. The University Grants Commission has included DA-IICT in the list of Universities maintained under Section 2(f) of the UGC Act, 1956. In 2009, DA-IICT became a member of the Association of Indian Universities (AIU). DA-IICT is managed by a Board of Governors chaired by Shri Anil Ambani, Chairman, Reliance ADA Group with visionaries and leaders from academia, government and industry.

DA-IICT offers two undergraduate and four postgraduate programs, including a doctoral program. The first undergraduate program, BTech

(Information and Communication Technology) was launched in 2002 and the second one, BTech (Hons.) in ICT with Computational Science as a minor, was designed and launched in 2013. The other programs offered are MTech (Information and Communication Technology), MSc (Information Technology), MDes (Communication Design) and a Doctoral Program in Technology and Humanities. DA-IICT has graduated over 4800 ICT engineers, design professionals, agriculture and rural development professionals and doctoral scholars and they are spread all over the world occupying prominent positions.

DA-IICT has more than 55 regular faculty members with active research credentials. They have authored quality books, published research papers in international journals and attracted several research projects with funding from Central and State Governments. The Institute houses a Government of India funded Incubation Centre to nurture and develop business ideas based on new technology. The Government of Gujarat has also been financing the Incubation Centre to support start-ups and related activities.





The Institute has signed Memorandums of Understanding with national and international institutions to promote and enhance academic and research collaboration. The notable MoUs are to mentor the Indian Institute of Information Technology, Vadodara, an Institute set up on Public Private Partnership (PPP) model, with the Government of Gujarat; Space Application Centre, Indian Space Research Organization, to admit eligible officers for PhD Program and collaborate in research and training; Indian Navy to admit naval officers for MTech and other advanced courses including PhD and joint research and training; University of Evora (Universidade de Evora), Portugal for academic exchange, collaboration in teaching and research — DA-IICT is one of the Asian University Partners with the University of Evora in the Erasmus Mundus Fellowship Program of the European Commission; University of Dayton, USA to develop academic exchange and co-operation in teaching and research for the advancement and dissemination of learning and Tata Consultancy Services for the TCS Research Scholar Program for Doctoral Scholars at the Institute.

DA-IICT designs and offers continuing education programs to upgrade the skills of researchers, academicians and professionals in industries, public and government organizations. These programs are knowledge sharing programs and they are in the forms of hands-on training, workshops and seminars.

DA-IICT is spread over 50 acres of land in Gandhinagar, Capital City of Gujarat. The campus is caringly planned and designed. The full green coverage on the campus with trees, lawns and bushes bearing green leaves and exotic flowers surrounding the buildings and pathways instills environment awareness among students and enrich their learning. The landscape was planned and developed in a manner that the rainwater seeps into and recharges the campus wells. The recycled water is used to irrigate the campus garden and lawns. The campus is also an abode for various species of birds and many rare birds are spotted on the campus.



### Academic Programs

The Institute aims to create a new class of Engineers in Information and Communication Technology (ICT) and Communication Design Professionals who will be committed to a vision of excellence both as professionals and citizens. The academic programs of the Institute have been designed to develop their comprehension of technology both within the broader vision of science and by providing an understanding of the business and social environment.

The Institute offers six teaching programs -- two undergraduate and four postgraduate programs including a Doctoral Program. The main features of the programs are that they are interdisciplinary,

have an effective combination of core and elective courses in ICT, basic sciences, humanities, arts, design, social sciences, management and project-based flexible learning and internships in rural, industrial and research environments. The curricula of the programs are periodically reviewed, assessed and updated in consultation with industry to prepare students industry-ready. Besides Degree Programs, the Institute offers short-duration training programs to industry professionals, government officials, academics and research scholars, research dissemination seminars and workshops. The details of the academic programs offered are given in **Table 1.** 

**Table 1: Academic Programs** 

| Sr. No. | Programs   | Commencement | Duration (Years) | Annual<br>Intake <sup>*</sup> |
|---------|--|--------------|------------------|-------------------------------|
| 1       | BTech (ICT)  | 2001         | 4                | 288                           |
| 2       | BTech (Honours) in ICT with minor in Computational Science | 2013         | 4                | 72                            |
| 3       | MTech (ICT)  | 2002         | 2                | 65                            |
| 4       | MSc (Information Technology)                               | 2002         | 2                | 120                           |
| 5       | MDes (Communication Design)                                | 2004         | 2                | 20                            |
| 6       | PhD  | 2002         | 3-5              | 10-20                         |

<sup>\*</sup>Exclusive of NRI/International students.

### **ADMISSIONS FOR 2018-19 BATCHES**

The process of admissions for 2018-19 batches of the programs began in February 2018 with the releasing of advertisements in regional/national dailies covering the entire country. The admissions were also announced at the web site of the Institute and by means of posters, brochures and social media networks. The admissions to 50% seats of the BTech Programs are conducted by the Admission Committee for Professional Courses (ACPC),

Government of Gujarat and these seats are reserved for applicants who have studied in Schools located in Gujarat State. The admissions to the remaining 50% seats including admissions of NRI/Foreign Students are conducted nationwide by the Institute directly.

### **Undergraduate Programs**

BTech (ICT) and BTech (ICT) Honours with Computational Science as Minor

The BTech programs have 360 seats, including 54



seats for Non-Resident Indians, Foreign Nationals and Persons of Indian Origin. Out of them, 180 seats were filled in by ACPC following their eligibility criteria, procedures and rules on admissions. The admissions to the other 126 seats were filled in by the Institute based on the All India Rank of Joint Entrance Examination Main 2018 (JEE Main 2018). The admissions to the 54 seats offered to Non-

Resident Indians, Foreign Nationals and Persons of Indian Origin were carried out on the basis of the Scholastic Aptitude Test (SAT) or JEE Main 2018 score. The Institute follows the guidelines for admission of reserved category students. The starting and closing JEE merit ranks of the students admitted are given in Table 2.

**Table 2: JEE Merit Ranks of Students** 

| Rank                 | Category        | BTech (ICT) | BTech (Honours) (CS) |
|----------------------|-----------------|-------------|----------------------|
| Best JEE Main Rank   | All India (Gen) | 1828        | 1588                 |
| Lowest JEE Main Rank | All India (Gen) | 13275       | 8722                 |

#### **PG Admissions**

**MTech (ICT):** The admission to the program was based on a valid Graduate Aptitude Test in Engineering (GATE) score. The restructured curriculum of the program was implemented from the reporting year and 65 students have joined the program.

**MSc (IT):** The program was restructured from the academic year 2017-18. The students were selected through an entrance test conducted at selected centers in the country. The test was for 90 minutes and the final merit list for admission was prepared on the basis of the aggregate score in the test. In 2018, 120 students were admitted to the program.

MDes (Communication): A Committee constituted by the Director with Prof S Balram, Director, DJ Academy of Design, Coimbatore, reviewed the program to restructure the program to augment it as one of the leading programs of the Institute. The students admitted to the program were selected through a Design Aptitude Test (DAT) conducted

at DA-IICT. Those who qualified DAT were called for an interview. The final selection was based on the combined scores attained in DAT, interview and Statement of Purpose (SOP) submitted along with the application. The candidates with a valid CEED score were directly called for the interview. Twenty-One applicants were called for entrance test/interview and 10 were offered admission and 6 have joined the program.

**PhD:** The admission to the program was through DA-IICT entrance test/CPI obtained in MTech Degree awarded by DA-IICT, CSIR/UGC-NET qualification, or GATE score. Out of 94 applicants, 23 candidates were called for interview on clearing the admission test. Three candidates were called directly for interviews based on their CSIR/UGC-NET qualification/GATE score/DA-IICT CPI. Eight candidates were shortlisted for admission and 6 have joined the program.

**Table 3** shows the number of students admitted at the end of the admission process.

**Table 3: Students Admitted to PG Programs** 

| Programs    | Application Received | Admission Offered |
|-------------|----------------------|-------------------|
| MTech (ICT) | 264                  | 86                |
| MSc (IT)    | 504                  | 120               |
| MDes (CD)   | 22                   | 6                 |
| PhD         | 94                   | 6                 |

### **ORIENTATION**

The orientation for the postgraduate students was held from 20th to 24th July 2018 and for undergraduates during 25-27 July 2018. The objectives of the orientation programs are to introduce the newly admitted students to the services provided by the Institute to support their education and stay on the campus. A good number of families of students attended the programs which gave them an opportunity to interact with faculty, staff and senior students and also get comprehensive information about the academic and student service resources. The sessions conducted covered genesis and mission of the Institute, academic policies and procedures, curriculum contents, placement, academic rules and regulations and life on campus. There were explicit sessions on cyber and gender sensitization. The senior student volunteers conducted special sessions on campus and hostel life. The orientation also acquainted the students and parents with the faculty, staff, course structure, evaluation system, grading, academic regulations, campus and infrastructure facilities. The Alumni representing 2003, 2009, 2011 and 2014 batches interacted with the newly admitted BTech students. In the session organized for the PG students, alumni belonging to MTech, MSc (IT), MDes and PhD graduates interacted with the newly admitted PG students.

### **FINANCIAL SUPPORT**

The Institute provides financial support in the form of fellowships, scholarships and teaching and research assistantships to eligible students.

### **Reliance Merit Scholarships**

Reliance, as part of its Corporate Social Responsibility (CSR), has instituted merit scholarships for students pursuing BTech Programs. The scholarship is equal to the full tuition fee for the duration in which the scholarship is awarded. Twenty six BTech (ICT) and (CS) students received the scholarship in the autumn and winter semesters.

### **DA-IICT Merit Scholarship**

The Merit Scholarships are awarded to the top five students admitted to the BTech program having an All India Rank not exceeding 5000 in the JEE Main Examination. During the academic year 2017-18, in the autumn semester, 17 and the winter semester, 12 students were awarded the Merit Scholarships.

### **DA-IICT Merit-cum-Means Scholarship**

The Merit-Cum-Means Scholarships are awarded to five students in each semester based on their academic performance and whose parent(s)/guardian(s) annual income is up to Rs. 3,00,000/-. Eighteen students have received the scholarship in autumn and winter semesters.



### **Assistantships**

The Institute offers full-time and half-time teaching assistantships with monthly fellowship to PhD Scholars and MTech (ICT) students. The BTech (ICT) students are offered half-time teaching assistantships in their final year studies. Thirty eight PhD Scholars, 111 MTech and 4 BTech students have received assistantships during the academic year 2017-18.

### **TCS Research Fellowship**

The Tata Consultancy Services (TCS) has recognized DA-IICT as one of the Institutions to administer the TCS Research Scholar Program. This prestigious program provides attractive doctoral fellowships and contingency grants to full-time students pursuing PhD programs in broad areas of Computer Engineering, Computer Science, Information Systems, Information Technology and Software Engineering. The Scholars are also eligible to receive support for paper presentation in one International refereed conference, held outside India, and two National/International refereed conferences held in India, during the Scholar's tenure.

During the reporting year, Ms. Jainisha Sankhavara and Mr. Prashant Mansukhbhai Domadiya, 2015-16 batch PhD Scholars were recipients of the Fellowship.

#### **TCS Student Award**

The DA-IICT is one of the institutions selected by TCS for the 'TCS-100 Best' high-ranking engineering institute student award scheme. The 'TCS 100 Best' is to enhance student's attention towards academics through healthy competition.

### Chief Minister Scholarship Scheme and Mukhyamantri Yuva Swavlamban Yojana (MYSY), Government of Gujarat

The Government of Gujarat has designated DA-IICT as one of the Institutions to guide the undergraduate students in preparation and submission of

applications for the Chief Minister Scholarship and MYSY. The Registrar's Office guides and assists students of DA-IICT as well as students from other Institutions to apply for the 'Mukhyamantri Yuva Swavlamban Yojana (MYSY).' The Scheme provides financial help to bright and needy undergraduate students whose parents' income is up to Rs.6 lakh. During the academic year 2017-18, 255 BTech students have received the scholarship.

#### **THESES**

### **Master's Theses**

The thesis work of the MTech (ICT) students starts from the summer semester after their second-semester courses. They work comprehensively to generate exciting research outcomes under the guidance of the faculty. Students of MDes (CD) program work full time on projects during their fourth semester at DA-IICT or leading organizations. The list of projects completed by the students during the year is given in **Annexure 2**.

### INSTITUTIONAL COLLABORATION AND STUDENT EXCHANGE PROGRAMS

The Institute has signed Memorandum of Understanding with national and international institutions to promote and enhance academic and research interaction as well as collaboration. The MoUs which were in force during the reporting period are as follows:

#### The Government of Gujarat:

To mentor the Indian Institute of Information Technology, Vadodara set up on the Public Private Partnership (PPP) model by the Central and State Governments and Industry.

#### **Indian Navy:**

To admit eligible candidates sponsored by the Navy for MTech and other advanced courses including PhD, joint research and development and training.

# Space Application Centre, Indian Space Research Organisation:

To admit eligible Officers sponsored by the Space Application Centre for the PhD Program of DA-IICT and collaborate in research and training.

### CR Rao Advanced Institute of Mathematics, Statistics and Computer Science, Hyderabad:

To design and offer joint teaching programs, visit of faculty and research fellows from one Institute to the other to participate in joint teaching, research and guidance and joint conferences, seminars and training programs.

#### **Indian Statistical Institute:**

Visit of faculty from one Institute to the other to participate in joint teaching, research and joint conferences and visit of students to each other for short term courses, internship and mini-projects.

# NVIDIA-BENNETT Research Center on Artificial Intelligence, Bennett University:

To work in partnership with the Center as a Collaborator on the project on Artificial Intelligence and Deep Learning Skills Research.

### **Entrepreneurship Development Institute of India:**

Exchange of personnel, conducting courses for Doctoral Scholars and credit transfer, joint guidance of projects/theses of students, organization of joint conferences, seminars and training programs.

### **University of Hildesheim, Germany:**

Academic and research collaboration, exchange of faculty, staff and students and exchange of scholarly information, materials and publications.

# University of Evora (Universidade de Evora), Portugal:

For academic exchange, collaboration in teaching, research and exchange of scientific materials and publications, for advancement and dissemination

of learning. Under the provisions of the MoU, DA-IICT is one of the Asian University Partners with the University of Evora in the Erasmus Mundus Fellowship Program of the European Commission.

## Institut Superieur D'Electronique De Paris, France:

For exchange of faculty, students and joint research.

### **University of Dayton, USA:**

To develop academic exchange and co-operation in teaching and research for the advancement and dissemination of learning.

### Universiti Teknologi MARA, Malaysia:

Accept undergraduate and graduate students between for periods of study and/or research and joint guidance of students on projects and theses, faculty and staff exchange, organization of joint seminars, short courses and meetings on research issues; exchange of information pertaining to developments in teaching, student development and research.

### University of Swaziland (UoS), Swaziland:

For academic exchange, research and faculty development of UoS for the advancement and dissemination of learning.

### **University of Antwerp, Belgium:**

To exchange faculty, students and for scientific cooperation.

### Junagadh Agricultural University, Junagadh:

To design and conduct joint undergraduate and postgraduate teaching programs, research projects, guidance of students on their internships, research and theses mainly, in the areas of application of Artificial Intelligence, Robotics and Drone Technology in Agriculture and allied disciplines; organize joint seminars, workshops, symposia, conferences, and meetings on research issues.



# International Crops Research Institute for the Semi-Arid Tropics, Hyderabad:

To participate in teaching, training and research; explore external funding opportunities for research, exchange and host students and scholars for research and degree programs by each other and exchange scientific materials and publications.

## INFLIBNET Centre, Inter-University Centre of the University Grants Commission:

To participate in the digitization of theses and dissertations and building-up of a digital repository and to promote, share and host DA-IICT's electronic theses and dissertations in 'Shodhganga.'

### **TCS Foundation:**

To nominate suitable full-time PhD candidates of DA-IICT for the TCS Research Scholar Program.

### Infinium Solutionz, Ahmedabad:

To support DA-IICT's efforts in education, training and research in the areas of Geographical Information System (GIS), Global Positioning System (GPS), Radio Frequency Identification (RFID) and IOT Technology and other research areas of mutual interest.

### **Erricsson India Private Limited:**

To impart pieces of training to the BTech students who have completed their sixth semester of studies at DA-IICT and consider employment of the certified students with Erricson India.

## eiTRA-einfochips Institute of Training Research and Academics Limited, Ahmedabad:

To train and upgrade the skills of eiTRA employees, conduct lectures for academic programs offered by Ganpat University, provide consultancy and guidance for technological research and project execution, facilitate DA-IICT students to carry out their internship and project work at eiTRA-einfochips and jointly offer continuing education programs.

#### **ICICI Bank:**

MoU to participate at the ICICI Trinity Program. The Program encourages and promotes students' talent intending to bring forth new ideas and innovations which can be applied in the banking/finance industry and help in their commercialization. The Program supports final year UG/PG students of five students team. In the case of PhD Scholars, single Scholar can seek support.

#### Ramakrishna Sarada Sevashram, Bastar:

To sponsor eligible candidates for PhD studies at DA-IICT, develop and support joint research programs and conduct specialized courses.

### **External Researchers and Student:**

DA-IICT has a scheme to accept researchers and students from other institutions for research affiliation, internships or project work on the recommendation of the faculty. The faculty members work as guides to them.



### Continuing Education Program

With the rapid pace of growth in science and technology and frequent paradigm shifts in policy, governance and management, continuing education of working and teaching professionals in the industry is a vital need. The Continuing Education Program (CEP) platform at DA-IICT, Gandhinagar, has been set up to meet the workforce training, knowledge upgradation by leveraging the expertise within DA-IICT and in collaboration with others.

The programs offered through the CEP platform have been fulfilling the broad spectrum of continuing education needs of working professionals from different industries and are fast emerging as one of the preferred continuing education centers within the country.

DA-IICT also views these programs as forums to:

- Gain a more in-depth insight into the challenges and needs of technology and management.
- Establish collaborative programs for addressing these challenges and to further the state-of-theart technical learning.

The outstanding faculty and staff with their wide spectrum of expertise in science, technology and management enable DA-IICT to offer a wide range of short term programs through the CEP platform to address the continuing education needs of working professionals in the industry, budding professionals and academia.

The following training programs were conducted:

| Programme                                       | Sponsor/Coordinator | Period          | No. of<br>Participants |
|---|---------------------|-----------------|------------------------|
| Digital System Architecture Using Verilog HDL   | CED (AIP)           | 4-8 June 2018   | 21                     |
| Design & Implementation of Relational Databases | CED (AIP)           | 11-15 June 2018 | 15                     |
| C/C Programming                                 | CED (AIP)           | 11-15 June 2018 | 8                      |
| Machine Learning for Data Mining                | SAC, ISRO           | 16-20 July 2018 | 25                     |





### Placements & Internships

#### **PLACEMENTS**

DA-IICT has been one of the most preferred institutes by companies. A good number of students have been recruited with attractive packages by leading companies like Amazon, ZS Associate, Deloitte, Endurance International Group, Qualcomm, HSBC, Oracle, Juniper Networks, SAP Lab, Samsung, Morgan Stanley, TCS, etc. The 2017-18 placement season saw recruiters from various domains of industries offering job profiles like Software Development, R&D Engineer, Business Technology Analyst, Data Scientist, Site Reliability Engineer, ASIC Design Engineer, Business Intelligence Consultants and Graduate Engineer Trainees, and many other. Eighty three companies participated in campus placement.

The companies that visited DA-IICT for campus placements include Servify, Rtcamp, Verse, E-Infochips, Evosys, Future First, Networks, Kuliza, MAQ Softwares, and MuSigma. The students were also offered project internships in premier research institutions such as Capillary, Amazon and Oracle. The placement process also benefited junior batches, with many of them securing summer internships. A good number of students got placements in the companies in which they did their summer internships.

The average annual salary package was Rs. 10.4 lakh. The highest salary package touched Rs. 29.30 lakh per annum.

| Placement 2017-18                                    | BTech | MTech | MScIT | MSc(ICT)ARD | MDes |
|--|-------|-------|-------|-------------|------|
| Students opting for campus placement (each batch)    | 197   | 54    | 90    | 3           | 2    |
| Students opting out of campus placement (each batch) | 77    | 7     | 0     | 0           | 7    |
| Total  | 274   | 61    | 90    | 3           | 9    |

| Details      | BTech | MTech | MScIT | MSc(ICT)ARD | MDes |
|--------------|-------|-------|-------|-------------|------|
| Total Placed | 197   | 50    | 65    | 01          | 02   |

### **RURAL INTERNSHIPS**

Rural Internship is a mandatory requirement of the BTech curriculum. The objective is to expose students to social and economic realities of rural lives, sensitize them to vulnerabilities the rural people face, and facilitate them to appreciate constraints and opportunities for the development of rural India. Rural internship is of four weeks at the end of their third semester during December vacation. A threemember Rural Internship Committee appointed by the Director is responsible for the Rural Internship.

The BTech 2016 Batch comprised of 300 students - 50 female and 250 male students. They were placed in 10 States with 32 Non-Governmental Organizations. The Rural Internship period was from December 01 to December 28.

As a part of the evaluation of Rural Internship, students made group-wise poster presentations that were evaluated by faculty members.

The following organisations hosted the students for Internship:

|        | overnment Organisation hosted<br>nts for Rural Internship |
|--------|---|
| Sr.no. | Name of the firm  |
| 1      | All India Institute of Local Self Government,             |
|        | Maharashtra   |
| 2      | Aga Khan Rural Support Programme,                         |
|        | Gujarat   |
| 3      | Akshay Patra, Gujarat                                     |
| 4      | Anoopam Mission, Gujarat                                  |
| 5      | Astha Sansthan, Rajasthan                                 |
| 6      | Bethany Society, Meghalaya                                |
| 7      | Blind People's Association, Gujarat                       |
| 8      | Centre for Environment Education, Gujarat                 |
| 9      | Chaitanya, Maharashtra                                    |
| 10     | CHETNA, Gujarat   |
| 11     | Cohesion Foundation Trust, Gujarat                        |
| 12     | Development Support Centre, Gujarat                       |
| 13     | Environmental Sanitation Institute, Gujarat               |
| 14     | GHCL Foundation Trust, Gujarat                            |
| 15     | Gurukripa Sewamay Trust, Gujarat                          |
| 16     | Gramin Vikas Trust, Gujarat                               |
| 17     | HelpAge India, Jammu & Kashmir                            |
| 18     | Himalayan Institute for Environment,                      |
| 19     | Ecology & Development, Uttaranchal Ishwar-GVT, Gujarat    |

|    | +   |
|----|---|
| 20 | Late J.V Nariya Education and Charitable                          |
|    | Trust, Gujarat  |
| 21 | Jeevantirth, Gujarat  |
| 22 | Kutch Nav Nirman, Gujarat   |
| 23 | Maitri Manthan Sansthan, Rajasthan                                |
| 24 | MicroGraam, Karnataka   |
| 25 | MIIT, Sabang, West Bengal   |
| 26 | NARDES, Gujarat   |
| 27 | People Welfare Society, Gujarat                                   |
| 28 | PNR Society, Gujarat  |
| 29 | Pratibha, Gujarat   |
| 30 | Prayosha Pratisthan, Gujarat                                      |
| 31 | Ruchi, Himachal Pradesh   |
| 32 | Samata, Andhra Pradesh  |
| 33 | Social Action for Rural and Tribal In-                            |
| 34 | Habitants of India (SARTHI), Rajasthan<br>Sewa Mandir, Rajasthan. |
| 35 | SEWA, Gujarat   |
| 36 | Social Upliftment Through Rural Action                            |
|    | (SUTRA), Gujarat  |
| 37 | Tribhuvandas Foundation, Gujarat                                  |
| 38 | UETS, Andhra Pradesh  |
| 39 | Vidhya Bhawan, Gujarat  |
| 40 | Yuva Unstoppable, Gujarat   |
|    | 1   |





#### RESEARCH/ INDUSTRIAL INTERNSHIPS

At the end of the sixth semester, the students of BTech program undertake research or industrial internship of six to eight weeks during the summer vacation. A research internship is done either in an academic or research and development institution under the supervision of a faculty. The objective of this internship is to expose the students to cutting edge research at an undergraduate level. An industrial internship is to familiarize the students with the corporate environment.

The students of BTech 2015 batch took internships across Industry, Research and Development Laboratories and national Academic Institutions (including DA-IICT). Microsoft, Amazon, Morgan Stanley, Sprinklr, Reliance Dahej Manufacturing Division, Tata Communications and a few startups

and new companies, such as Gemini Consulting and Services, Techwave and MAQ Software, have provided internships. Indian Institutes of Technology, Bombay and Madras, Indian Institute of Management, Ahmedabad, National Institute of Technology, Warangal and Bhaskaracharya Institute of Space Applications and Geoinformatics, Gandhinagar are some of the academic/research institutions where the students did their internships.

On completion of internships, the students made their presentations and it was observed that through research/industrial internships, they could get excellent exposure to research and development and/or industrial applications of broad areas of ICT. A total of 292 BTech students undertook internships, out of which 192 were research internships and 100 were industrial internships.









# No. of students opting for Summer internships - (off-campus through Placement Section)

### Number of Organizations - 6

| rumber of organizations o          |  |                 |  |  |
|------------------------------------|--|-----------------|--|--|
| Sr. No. Name of the organizations/ |  | No. of students |  |  |
| 1                                  | Amazon India Pvt Ltd                         | 5               |  |  |
| 2                                  | GE Digital Pvt Ltd                           | 1               |  |  |
| 3                                  | Goldman Sachs                                | 4               |  |  |
| 4                                  | Morgan Stanley Advantage<br>Services Pvt Ltd | 6               |  |  |
| 5                                  | Sprinklr Solutions Pvt Ltd                   | 12              |  |  |
| 6                                  | VISA (For girls)                             | 2               |  |  |

# Number of students opting for Industrial Internships - 345

### Number of Organizations - 73

| Sr. No. | Name of the Organization          | No. of<br>Students |
|---------|-----------------------------------|--------------------|
| 1       | Adsom GlobalTech Pvt Ltd          | 3                  |
| 2       | Amazon CSA                        | 3                  |
| 3       | Amazon India Pvt Ltd              | 15                 |
| 4       | Apttus India                      | 11                 |
| 5       | AssetTrackr                       | 4                  |
| 6       | Autoninja                         | 1                  |
| 7       | Bitmapper Integration Pvt Ltd     | 2                  |
| 8       | Capillary Technologies            | 1                  |
| 9       | Coviam Technologies               | 6                  |
| 10      | Dailyhunt                         | 9                  |
| 11      | Delhi Development Authority (DDA) | 5                  |
| 12      | Delhivery                         | 3                  |
| 13      | Deloitte                          | 14                 |
| 14      | Direct-i                          | 7                  |
| 15      | Dolcera                           | 3                  |
| 16      | DSC Logistics                     | 1                  |
| 17      | Educational Initiatives           | 1                  |
| 18      | Ekutir                            | 4                  |
| 19      | Endurance International Group     | 1                  |
| 20      | Evive                             | 2                  |
| 21      | Evosys                            | 3                  |
| 22      | ezDI                              | 5                  |
| 23      | Factset                           | 9                  |
| 24      | Fractal Analytics Pvt Ltd         | 1                  |
| 25      | Futures First                     | 3                  |
| 26      | Gateway Telecommunications        | 5                  |
| 27      | GE Digital                        | 5                  |
| 28      | Half tick                         | 1                  |

| 29 | Hansa Cequity Solutions Pvt                  | 10 |
|----|--|----|
| 30 | Ltd Here Technologies Pvt Ltd                | 2  |
| 31 | HSBC   |    |
| 32 |  | 3  |
|    | HSBC-Other profile                           | 4  |
| 33 | Hubilo                                       | 3  |
| 34 | Infocusp                                     | 3  |
| 35 | Infosys                                      | 27 |
| 36 | Innovaccer Analytics Pvt Ltd                 | 1  |
| 37 | Innovify India                               | 2  |
| 38 | Intellimind LLC                              | 1  |
| 39 | Intello Labs Pvt Ltd                         | 6  |
| 40 | Juniper Networks                             | 7  |
| 41 | Kiwi Technology LLC                          | 3  |
| 42 | Kuliza Technologies                          | 9  |
| 43 | Larsen & Toubro (L&T)                        | 4  |
| 44 | MAQ Software                                 | 1  |
| 45 | Mettl  | 1  |
| 46 | Microsoft(I)                                 | 8  |
| 47 | Morgan Stanley Advantage<br>Services Pvt Ltd | 10 |
| 48 | Multi Commodity Exchange                     | 2  |
| 49 | Nagarro                                      | 5  |
| 50 | Next Education Pvt Ltd                       | 1  |
| 51 | Ola  | 1  |
| 52 | Open-Silicon Research Pvt<br>Ltd             | 3  |
| 53 | OpsHuBTechnologies                           | 3  |
| 54 | Oracle Corporation                           | 9  |
| 55 | PlexusMD                                     | 4  |
| 56 | Postdot Technologies Pvt Ltd                 | 2  |
| 57 | Qualcomm                                     | 4  |
| 58 | Rapid Ops Inc                                | 4  |
| 59 | RT Camp Solutions Pvt Ltd                    | 5  |
| 60 | Saba Software Pvt Ltd                        | 7  |
| 61 | Samsung R&D                                  | 5  |
| 62 | Sankalp Semiconductors                       | 1  |
| 63 | SAP Labs                                     | 4  |
| 64 | Searce                                       | 7  |
| 65 | Servify                                      | 7  |
| 66 | Shipmnts                                     | 5  |
| 67 | Sophos                                       | 7  |
| 68 | Sprinklr                                     | 19 |
| 69 | TrueSource                                   | 2  |
| 70 | Upgrad                                       | 1  |
| 71 | UX Reactor                                   | 1  |
| 72 | Vehant Technologies Pvt Ltd                  | 2  |
| 73 | Wishbook                                     | 1  |

### Fourteenth Convocation

The Fourteenth annual Convocation was held on Saturday, 20th January 2018. Eleven PhD Scholars, 55 MTech, 89 MSc (IT), 7 MSc(ICT-ARD), 9 MDes (CD), and 266 BTech students have received their Degrees.

The following students have received the President's Gold Medal for scholastic performance:

| Sr. No. | Name                         | Program                             |
|---------|------------------------------|-------------------------------------|
| 1       | Panchal Parth Dixitbhai      | BTech(ICT)                          |
| 2       | Zarana Pareshkumar<br>Parekh | BTech(Honours)<br>ICT with Minor CS |
| 3       | Desai Meet Nitin             | MTech(ICT)                          |
| 4       | Sunil Suresh Chawla          | MSc (IT)                            |
| 5       | Patel Ashviniben<br>Kanubhai | MSc(ICT-ARD)                        |
| 6       | Saurav Sharma                | MDes(CD)                            |









Prof Sangamitra Bandyopadhyay, JC Bose National Fellow and Director, Indian Statistical Institute, was the Chief Guest for the Convocation. In her address, she advised the graduating class not to be afraid to experiment and go beyond what one thinks she/he is capable of. She cautioned the graduating students that they will often face challenging situations, and will have to make difficult choices and advised them that at such junctions, not to be afraid to take risks and step into unknown territory if required. She also encouraged them to work hard to attain their

dreams and not to turn away from opportunities, tread where others have not gone before, and accept the consequences happily. She recalled her area of studies and research, what she has attained as a Researcher and narrated incidents of her failures and success. She concluded her speech by reminding the graduates to look no further than the person whose name DA-IICT bears and advised the graduates to read up his life and learn what a person with a firm intent can achieve.







# Research and Development (Sponsored Projects and Entrepreneurship)

DA-IICT has been a research-led University since its inception in 2001. Ever since it was founded, the Institute has had a vibrant research environment. This has brought dynamism to all academic activities. It stands for a confluence of several interrelated disciplines, from technology and basic sciences to humanities and social sciences catering to both academia and industry. The Institute aims to encourage basic, applied and developing research conducted both by students and members of faculty alike. The Institute's encouragement reflects in the policies the Institute has formulated for research activities and professional development. Although the needs of faculty are as diverse as the disciplines they represent, they, however, share the common goal of building their capacities to generate new ideas and ways of understanding society.

DA-IICT's infrastructure, ranging from various wellequipped laboratories, specialized equipment, campus-wide networking, high-speed internet access and subscription to hundreds of print and online journals, matches the general expectations of inter-disciplinary research. The faculty are also encouraged to seek out the latest opportunities for research collaboration and funding. Partnerships with industry are a priority. Besides, all efforts to participate in bilateral, international and multi-institutional research grants aimed at solving critical problems will be duly supported. In this challenging fiscal climate, when the traditional individual research grant has become increasingly competitive, multi-institutional grants can be an important source of funding for research

The faculty, students, and research staff are active in research in several academic disciplines, including but not limited to the following: computer science, electronics and communication, mathematics, physics, agriculture and rural development, humanities, and social sciences. They have been regularly publishing their research work in leading refereed journals and conferences. Over the last decade, a large number of sponsored projects have been initiated by faculty, including international projects.

### **SPONSORED PROJECTS**

In the year 2017-18, the Institute received grants for 4 new sponsored projects and 2 grants for promotion of start-ups.

**Table 6: New Projects** 

| Title of the Sponsored Project  | Sponsoring<br>Agency                             | Investigators                                   |
|---|--|---|
| Development of Microwave Absorbers (Carbonyl Iron filled Silicon Rubber Sheets) in 1 to 8 GHz range | ISRO/DoS   | Prof. Deepak Ghodgaonkar<br>Prof. Sanjeev Gupta |
| Desertification and Land Degradation: Monitoring, Vulnerability Assessment and Combating Plans      | ISRO/DoS   | Prof. Ranendu Ghosh<br>Prof. Suman Mitra        |
| Imprint - A platform for Cross-lingual and Multilingual Event Monitoring in Indian Languages        | MHRD   | Prof. Prasenjit Majumder<br>Prof. Suman Mitra   |
| Using Mobile Sensing Mechanism to access Smart Phone Addiction and Its Negative Impact on students  | ICSSR  | Prof. Alka Parikh<br>Prof. P.S. Kalyan Sasidhar |
| Nodal Institute for Start-ups   | Industries Commissionerate Government of Gujarat | Prof. Sanjeev Gupta                             |
| Student Start-up and Innovation   | Government of Gujarat                            | Prof. Sanjeev Gupta                             |
| Setting up of Anchor Institute  | CED (Government of Gujarat)                      | Prof. Amit Bhatt                                |



Faculty continued work on 13 on-going sponsored projects.

**Table 7: On-going Projects** 

| Title of the Sponsored Project  | Sponsoring<br>Agency | Investigators                                     |  |
|---|----------------------|---|--|
| UCMA: A Toolset to Automatically Analyse Functional Requirements Specified in the Use Cases   | SERB/DST             | Prof. Saurabh Tiwari                              |  |
| Detection of Heavy Metal Pollution in Vegetation and<br>Characterization of Soil Clay Minerals using AVIRIS-NG<br>Data                  | ISRO/DoS             | Prof. Ranendu Ghosh Prof.<br>P.S. Kalyan Sasidhar |  |
| Kinetic Modelling of Large size Negative Ion Sources for Fusion Application using Emerging Parallel Processing Computer Architectures   | BRNS                 | Prof. Bhaskar Chaudhury<br>Prof. Mukesh Tiwari    |  |
| Development of Ultra Low Power and Low Voltage Time to Digital Converter(TDC) for Space Applications                                    | ISRO/DoS             | Prof. Biswajit Mishra                             |  |
| Study of Privacy, Accountability and Ownership in IoT   | IFCPAR               | Prof. Manik Lal Das Prof.<br>Anish Mathuria       |  |
| Techno-feasibility Study on Automation of Hydroponics and Green House Cultivation   | GHM                  | Prof. Ranendu Ghosh<br>Prof. Rahul Dubey          |  |
| Processor RTL Customization and Development of Low Power Design Flow Methodology  | GUJCOST              | Prof. Amit Bhatt Prof.<br>Mazad Zaveri            |  |
| Enabling Technologies for Remote Health Monitoring  | GUJCOST              | Prof. Biswajit Mishra<br>Prof. Manik Lal Das      |  |
| Speech based Access of Agriculture Commodity Prices and Weather Information in 12 Indian Languages/ Dialects (ASR), Consortium-Phase-II | DeitY                | Prof. Hemant A Patil<br>Prof. M.V. Joshi          |  |
| Center Early Adopter - NSF/ TCPP CDER   | NSF (USA)            | Prof. Bhaskar Chaudhury<br>Prof. Mukesh Tiwari    |  |
| Ultra Wide Band Dielectric Resonator Antenna  | ISRO/DoS             | Prof. Deepak Ghodgaonkar<br>Prof. Sanjeev Gupta   |  |
| Development of Cross Lingual Information (CLIA) System (Phase-II)   | DeitY                | Prof. Prasenjit Majumder<br>Prof. Suman K. Mitra  |  |
| Expansion of Technology Incubation and Development of Entrepreneurs (TIDE) in the areas of Electronics and ICT                          | DIT                  | Prof. Manish Gupta                                |  |

Faculty completed work on 3 projects.

**Table 8: Completed Projects** 

| •   | •                                    |  |
|---|--------------------------------------|--|
| Title of the Sponsored Project  | Sponsoring<br>Agency                 | Investigators                          |
| Developing of Infant Cry Analyzer using Source and System Features  | DST                                  | Prof. Hemant A Patil                   |
| Development of Text to Speech System in Indian Languages (Phase-II) High quality Text to Speech Synthesis and small footprint TTS integrated with Disability aids |                                      | Prof. Hemant A Patil<br>Prof. MV Joshi |
| Value Addition in Grassroots Technologies   | National<br>Innovation<br>Foundation | Prof. Anil K. Roy                      |

### **CONSULTANCY PROJECTS**

In the year 2017-18, the faculty undertook 2 consultancy projects.

**Table 9: Consultancy Projects** 

| Consulting Area  | Organization   | Faculty               |
|--|--|-----------------------|
| Development of OCR Algorithms to Enhance the Accuracy of Numerical Data Recognition by the Machine | Factset Systems<br>India Pvt. Ltd.,<br>Hyderabad           | Prof. MV Joshi        |
| Design of a Novel Batch-mix Control Unit on an FPGA  | Samyak<br>Instrumentation<br>Private Limited,<br>Ahmedabad | Prof. Biswajit Mishra |

# DA-IICT Centre for Entrepreneurship and Incubation (DCEI)

DA-IICT Centre for Entrepreneurship and Incubation was established in 2011 to promote innovation and entrepreneurship culture among the community. DCEI is supported by the Ministry of Electronics and Information Technology, Government of India to nurture and develop a business idea based on the latest and emerging technology. DCEI has also been recognized by the Government of Gujarat as a Nodal Institution to promote and nurture entrepreneurship among young technologists. The DCEI has incubated the following start-ups since its inception:

- AlmaConnect Solutions Private Limited creates a network for educational institutions and tracks its alumni members.
- 2. Playpower Labs Private Limited develops game curriculum for school students and data analytics for companies involved in the field of education.

- Appbin Labs Private Limited successfully developed a product 'Developer Hub' which provides complete database services for rapid application development.
- 4. Kamkaaj Solutions Private Limited engaged in developing a job aggregator that aggregates jobs that are posted on different job boards/ portals and empowers job-seekers with the features of searching and analyzing jobs.
- 5. Corygbee Private Limited a faculty-led startup is an online research collaboration platform for researchers, students, and research funding agencies.
- 6. Innoruptiontech Solution Private Limited a hyper-local job market place for the blue-collar and entry-level segment.
- 7. Yoctosehns Technologies Private Limited a through monitoring of cattle at a low cost. It helps in estrus detection with a simple user interface.



### Workshops, Special Lectures and Visitors

# SEMINARS / CONFERENCES/ WORKSHOPS ORGANIZED

The Institute regularly organizes conferences, seminars and workshops for promoting interactions

with wider academic and research communities. Below is a listing of the conferences and workshops organised during 2017-18:

Table 10: Conferences, Seminars, and Workshops Organised

| Tubic 10. Comercines, seminars, and Workshops Organised   |                                  |  |  |
|---|----------------------------------|--|--|
| Title   | Dates                            | Sponsoring Agency  |  |
| Workshop on Block Chain<br>Technology and Applications  | 7-8 July 2018                    | DA-IICT  |  |
| Fourteenth Annual ADMA (Academy of Discrete Mathematics and Applications) Conference and Graph Theory Day | 6-10 June 2018                   | DA-IICT, DRDO, ISRO, NBHM, DST (Government of Gujarat), Industries Commisionerate (Government of Gujarat), MeiTY, iNDEXTb, GUJCOST, DCEI, IIT Gandhinagar, IIIT Vadodara, Rygbee Inc., USA, eChai Ventures |  |
| Technical hands-on session on Git and Git hub   | 4 April 2018                     | IEEE Industry Applications<br>Society, DA-IICT   |  |
| Interpersonal skills development session in association with the members of Toastmasters International    | 19 March 2018                    | IEEE Industry Applications<br>Society, DA-IICT   |  |
| Machine Learning Sessions for UG students   | 22 January & 14<br>February 2018 | IEEE MI-SIG, DAIICT  |  |
| Workshop on Touch and Augmented Reality   | 23-24 September<br>2017          | Infi-Zeal Technologies, IIT Delhi<br>Alumni Venture, DA-IICT   |  |
| Workshop on Innovative Design using 3D Printer  | 9-10 September 2017              | IEEE Industry Applications<br>Society, DA-IICT   |  |



### **VISITORS AND SPECIAL LECTURES**

The Institute welcomes visitors from various organizations. Their visits help the faculty and students to explore collaboration, funding and

professional development opportunities. It regularly invites speakers from academic institutions and industry experts to deliver special lectures. Below is a list of visitors during 2017-18:

Table 11: Visitors

| Visitor and Affiliation                                    | Date              |
|--|-------------------|
| Dr. R. Ganesh, Institute of Mathematical Sciences, Chennai | 27 April, 2017    |
| Dr. Sumitesh Sarkar, SAC, Ahmedabad                        | 27 April, 2017    |
| Shri Tapan Mishra, Director, SAC Ahmedabad                 | 22 August, 2017   |
| Dr. D. Majunath, IIT Bombay                                | 07 November, 2017 |
| Dr. Dinesh Garg, IBM Research Lab, Bangalore               | 07 November, 2017 |
| Prof. Amit Kumar, IIT Delhi                                | 08 February, 2018 |
| Prof. Dinesh Garg, IBM Research Lab, Bangalore             | 08 February, 2018 |
| Prof. Virendra Singh, IIT Bombay                           | 09 February, 2018 |
| Dr. Apoorva Bhattacharya, SAC, Ahmedabad                   | 09 February, 2018 |
| Prof. K.R. Ramakrishnan, IISc Bangalore                    | 09 February, 2018 |
| Prof. Phani Tetali, IIT Bombay                             | 10 February, 2018 |
| Prof. Tarun Deep Girdhar, NID, Ahmedabad                   | 10 February, 2018 |
| Prof. K.Bandhopadhyay, IIT, Jadavpur                       | 28 March, 2018    |
| Prof. S. Sarkar, SAC, Ahmedabad                            | 28 March, 2018    |
| Prof. Jitesh Bhatt, PRL, Ahmedabad                         | 28 March, 2018    |
| Dr. Sangeeta Angom, Project Coordinator, NIEPA, New Delhi  | 14-18 May, 2018   |
| Prof. Harjinder Singh, IIIT Hyderabad                      | 22 May, 2018      |
| Prof. Suvra S.Das, IIT Kharagpur                           | 22 May, 2018      |
| Prof. Virendra Singh, IIT Bombay                           | 27 August, 2018   |
| Prof. Jayanta Mukherjee, IIT Bombay                        | 27 August, 2018   |
| Prof. Vijaykumar Chakka, Shiv Nadar University, Noida      | 27 August, 2018   |
| Prof. Usha Mehta, Nirma University, Ahmedabad              | 27 August, 2018   |
| Prof. Vivek Kanhangad, IIT Indore                          | 27 August, 2018   |
| Prof. Anirban Dasgupta, IIT, Gandhinagar                   | 27 August, 2018   |



### Faculty Publications

Publications reflect faculty and staff interests and their research initiatives. The publications have appeared primarily in peer-reviewed conferences and journals. The majority of publications have student co-authors indicating a strong faculty commitment to train and mentor both post graduate and under graduate students in research.

During the reporting year, the faculty published 2 books, 6 chapters in books and 93 papers in journals and conferences.

#### **Books**

- Shweta Rao Garg and Deepti Gupta, Eds., "The English Paradigm in India: Essays in Language, Literature and Culture," Singapore: Palgrave Macmillan, 02 Oct. 2017. DOI:10.1007/978-981-10-5332-0
- Prasenjit Majumder, Mandar Mitra, Parth Mehta and Jainisha Sankhavara, Eds., "Text Processing: FIRE 2016 International Workshop, Kolkata, India, 7-10 Dec. 2016, Revised Selected Papers," Cham, Switzerland: Springer International Publishing, 2018. DOI: 10.1007/978-3-319-73606-8

### **Book Chapters**

- Binita Desai and Nina Sabnani, "Pluralistic View of Indian Images: 2nd BCE to the 1990s," in *History of Illustration*, Susan Doyle, Jaleen Grove, Whitney Sherman, Eds., UK: Fairchild Books, 22 Feb. 2018. ISBN: 9781501342110
- Prathmesh R. Madhu, and Manjunath V. Joshi, "Digital Heritage Reconstruction Using Deep Learning-Based Super-Resolution," in "Heritage Preservation: A Computational Approach, Bhabatosh Chanda, Subhasis Chaudhuri, and Santanu Chaudhury, Eds., Singapore: Springer: 16 Jun. 2018. DOI: 10.1007/978-981-10-7221-5\_4
- Naveen Kumar, and Anish Mathuria, "Security and Privacy Issues in Outsourced Personal Health Record" in *Research advances in Cloud Computing*, Sanjay Chaudhary, Gaurav Somani, Rajkumar Buyya, Eds., Singapore: Springer, Dec. 2017, pp. 431-447. DOI: 10.1007/978-981-10-5026-8\_17

- Shweta Rao Garg, "Food Images and Identity in the Selected Writings of Three Indian American Women Writers," in *The English Paradigm in India*, Rao Garg S., Gupta D., Eds, Palgrave Macmillan, Singapore, 2017. DOI:10.1007/978-981-10-5332-0\_15
- Vishvajit Pandya "Events, Incidents and Accidents: Re-Thinking Indigenous Resistance in the Andaman Islands," *In Savage Attack: Tribal Insurgency in India*, Crispin Bates, Alpa Shah, Eds., London, UK: Routledge, Jun. 2017. ISBN:978-1-13-810287-3
- 6. Vishvajit Pandya and Madhumita Mazumdar, "'Dr. Kar I Presume!': 'Medical' Narratives from the Jarawa Tribal Reserve 126," in Locating the Medical: Explorations in South Asian History, Rohan Deb Roy and Guy N.A. Attewell, Eds., India: Oxford University Press, 4 Jan. 2018, pp 126-151. ISBN: 978-0199480197

#### **Journal Papers**

- Nileshkumar Vaishnav and Aditya Tatu, "Efficient Filtering of Graph Based Data Using Graph Partitioning," World Academy of Science, Engineering and Technology, International Journal of Computer, Electrical, Automation, Control and Information Engineering, vol. 11, no. 3, pp. 374-377, Aug. 2017. DOI: 10.1999/1307-6892/10006802
- Ruchi Gajjar, Tanish Zaveri, Asim Banerjee, and K.V.V. Murthy, "Trigonometry-based motion blur parameter estimation algorithm," *International Journal of Image Mining*, vol. 3, no. 1, pp. 67-78, Jul. 2018. DOI: 10.1504/IJIM.2018.092997
- 3. Agam Shah, Yagnesh Chauhan, Prithvi Patel and **Bhaskar Chaudhury**, "Multivariate data

- visualization based investigation of projectiles in sports," *European Journal of Physics*, vol. 39, no. 4, pp. 04400, 3 May 2018. DOI: 10.1088/1361-6404/aab6da
- Hardik Vyas and Bhaskar Chaudhury, "Computational investigation of power efficient plasma based reconfigurable microstrip antenna," *IET Microwaves, Antennas & Propagation*, vol. 12, no. 9, pp. 1587 – 1593, 25 Jul. 2018. DOI: 10.1049/iet-map.2017.0729
- R. J. Doshi and Deepak Ghodgaonkar, "Adaptive Thermal Management Technique to Improve the Efficiency of SSPA for Geo-Synchronous Satellite," *Journal of Heat Transfer*, vol. 140, no. 5, pp. 054502(1)-054502(4), May 2018. DOI: 10.1115/1.4038425
- Anshu Chittora and Hemant A. Patil, "Significance of Higher-Order Spectral Analysis in Infant Cry Classification," *Circuit, System and Signal Processing*, vol. 37, no. 1, pp. 232-254, Jan. 2018. DOI: 10.1007/s00034-017-0544-3
- Maulik C. Madhavi and Hemant A. Patil, "Partial matching and search space reduction for QbE-STD," Computer Speech & Language, vol. 45, pp. 58-82, Sept. 2017. DOI: 10.1016/j. csl.2017.03.004
- Jaideep Mulherkar and V. Sunitha, "Capacity of a quantum memory channel correlated by matrix product states," *Quantum Information Processing*, vol. 17, no. 4, p. 80, Apr. 2018, DOI: 10.1007/s11128-018-1847-4
- Kalyan P. Subbu, Athanasios V. Vasilakos, "Big Data for Context Aware Computing – Perspectives and Challenges," Big Data Research, vol. 10, pp. 33-43, Dec. 2017. DOI: 10.1016/j.bdr.2017.10.002
- Laxminarayana S. Pillutla, "Network Coding Based Distributed Indoor Target Tracking Using Wireless Sensor Networks," Wireless Personal Communications, vol. 96, no. 3, pp. 3673-3691, Oct. 2017. DOI: 10.1007/s11277-017-4069-7
- 11. Sarita Agrawal and **Manik Lal Das**, "Mutual healing enabled group-key distribution protocol

- in Wireless Sensor Networks," *Computer Communications*, vol. 112, pp. 131-140, Nov. 2017. DOI: 10.1016/j.comcom.2017.08.014
- 12. Sonam Nahar & Manjunath V. Joshi, "A learned sparseness and IGMRF-based regularization framework for dense disparity estimation using unsupervised feature learning," IPSJ Transactions on Computer Vision and Applications, vol. 9, no. 2, pp. 1-15, Dec. 2017. DOI: 10.1186/s41074-016-0013-0
- 13. Kamal Captain and Manjunath Joshi, "Performance Improvement in Wideband Spectrum Sensing Under Fading: Use of Diversity," IEEE Transactions on Vehicular Technology, vol. 66, no. 9, pp. 8152-8162, Sept. 2017. DOI: 10.1109/TVT.2017.2679282
- 14. Om Prakash, Jeonghwan Gwak, Manish Khare, Ashish Khare and Moongu Jeon, "Human detection in complex real scenes based on combination of biorthogonal wavelet transform and Zernike moments," Optik: International Journal for Light and Electron Optics, vol. 157, pp. 1267-1281, Mar. 2018. DOI: 10.1016/j. ijleo.2017.12.061
- 15. Manish Khare, Om Prakash, and Rajneesh Kumar Srivastava, "Combining Zernike moment and complex wavelet transform for human object classification," *International Journal of Computational Vision and Robotics*, vol. 8, no. 2, pp. 140-167, May 2018. Doi: 10.1504/IJCVR.2018.091983
- 16. Manish Narwaria, "Toward Better Statistical Validation of Machine Learning-Based Multimedia Quality Estimators," *IEEE Transactions on Broadcasting*, vol. 64, no. 2, pp. 446-460, Jun. 2018. DOI: 10.1109/TBC.2018.2832441
- Lukas Krasula, Manish Narwaria, Karel Fliegel and Patrick Le Callet, "Preference of Experience in Image Tone-Mapping: Dataset and Framework for Objective Measures Comparison," IEEE Journal of Selected Topics in Signal Processing, vol. 11, no. 1, pp. 64-74, Dec. 2017. DOI: 10.1109/JSTSP.2016.2637168



- 18. Nabin Kumar Sahu, N. K. Mahato and Ram N. Mohapatra, "System of nonlinear variational inclusion problems with (A, η)-maximal monotonicity in Banach spaces," Statistics, Optimization & Information Computing, vol. 5, no. 3, pp. 244-261, Sept. 2017. DOI: 10.19139/soic.v5i3.238
- Parth Mehta and Prasenjit Majumder, "Effective aggregation of various summarization techniques," Information Processing & Management, vol. 54, no. 2, pp. 145-158, Mar. 2018. DOI: 10.1016/j.ipm.2017.11.002
- 20. Viji K., Anil Kumar and R. Nagaraj, "Enhanced Discrete Fuzzy Sliding Mode Control for Buck Converter," *International Journals of Control Theory and Applications*, vol. 10, no. 18, pp. 335-342, Sept. 2017.
- Mahipal Jadeja, Rahul Muthu and V. Sunitha, "Set Labelling Vertices to Ensure Adjacency Coincides With Disjointness," *Electronic Notes in Discrete Mathematics*, vol. 63, pp. 237-244, Dec. 2017. DOI: 10.1016/j.endm.2017.11.019
- 22. Yves Beghein, **Rajendra Mitharwal**, Kristof Cools and Francesco P. Andriulli, "On a Low-Frequency and Refinement Stable PMCHWT Integral Equation Leveraging the Quasi-Helmholtz Projectors," *IEEE Transactions on Antennas and Propagation*, vol. 65, no. 10, pp. 5365-5375, Oct. 2017. DOI: 10.1109/TAP.2017.2738061
- 23. Manish Chaturvedi and **Sanjay Srivastava**, "Multi-Modal Design of an Intelligent Transportation System," *IEEE Transactions on Intelligent Transportation Systems*, vol. 18, no. 8, pp. 2017-2027, Aug. 2017. DOI: 10.1109/TITS.2016.2631221
- 24. **Santanu Koley**, R. Mondal, and Trilochan Sahoo, "Fredholm integral equation technique for hydroelastic analysis of a floating flexible porous plate," *European Journal of Mechanics B/Fluids*, vol. 67, no. 4, pp. 291-305, Jan.- Feb. 2018. DOI: 10.1016/j. euromechflu.2017.10.004

- 25. Saurabh Tiwari and Atul Gupta, "Investigating Comprehension and Learnability Aspects of Use Cases for Software Specification Problems," *Information and Software Technology*, vol. 91, pp. 22-43, Nov. 2017. DOI: 10.1016/j. infsof.2017.06.003
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# **Technical Papers**

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# Awards and Professional Activities

The faculty and staff continued to be actively involved in international, national, state and local level professional activities and made significant contributions at all levels. They also received fellowships and presented a large number of invited talks all over the country and abroad. Below is a listing of the major recognitions and activities of the faculty and staff of the Institute:

# HONORARY WORK/POSITIONS HELD ON PROFESSIONAL BODIES

#### Alka Parikh

- · Board of Trustees, Utthan, Ahmedabad
- Joint Director, Uplift India Association, Pune

#### **Amit Bhatt**

- Member, Board of Studies, Gujarat Technological University, Ahmedabad
- Course curriculum in ECE discipline, Charotar University of Science and Technology, Anand, Gujarat

#### **Bhaskar Chaudhury**

- Life Member, Plasma Science Society of India, IPR, Gandhinagar
- Honorary Member, Data for Modeling Plasmas (DMP), France
- Member, Division of Plasma Physics- Association of Asia Pacific Physical Societies
- Member, IEEE

# **Biswajit Mishra**

- Advisory Member, Department of Science Technology, Government of Gujarat
- Advisory Member, Gujarat Public Service Commission, Gujarat

# Deepak Ghodgaonkar

- Fellow, The Institution of Engineers, Malaysia (FIEM), Malaysia
- Life Fellow, Institution of Electronics and Telecommunication Engineers, India
- Senior Member, IEEE USA

# **Hemant Patil**

 Member, Project Review Steering Group, Consortia projects, Ministry of Electronics and Information Technology (MeitY), Government of India

- Member, Board of Studies, GH Raisoni Institute of Engineering and Management, Jalgaon, Maharashtra
- Member, Research Progress Committee, Nirma University, Ahmedabad
- External Expert Member, IQAC, Nirma University, Ahmedabad
- PRSG member, MeitY's Data Collection Project
- PRSG Member, MeitY ASR Phase-II project
- Member, International Speech Communication Association, France
- Member, IEEE, USA
- Member, IEEE Signal Processing Society, USA
- Affiliate Member, IEEE Speech and Language Technical Committee, USA
- Member, IEEE Circuits and Systems Society, USA
- Member, International Association for Engineers, London
- Life Member, System Society of India

#### **Manik Lal Das**

Senior Member, IEEE

#### **Manish Khare**

Member, IEEE

# Ranendu Ghosh

 Convener, Quality assurance/quality control committee, Secretary, Agriculture, Government of Gujarat

#### Sanjeev Gupta

- Member, Board of Governors, DA-IICT
- Member, Board of Governors, IIIT Vadodara
- Member, Board of Governors, Government Engineering College, Gandhinagar
- Member, Governing Council, Gujarat Industrial Research and Development Agency, Vadodara
- Member, Board of Governors, DA-IICT Centre for Entrepreneurship and Incubation
- Member, Senate, IIIT Vadodara
- Vice Chairperson, Research Council, IIIT Vadodara
- Convenor, Disciplinary Action Committee, IIIT Vadodara
- Member, Committee for Government of Gujarat approved DA-IICT as Nodal Institute under its Start-up/Innovation Scheme
- External Expert, SAC Promotion Interview



- Committee (Scientist-SB to Scientist-SC and Scientist-SC to Scientist-SD), Space Applications Centre, Department of Space, Government of India, Ahmedabad
- Member, Advisory Committee for PG Research Centre for Mobile Computing & Wireless Technologies, Gujarat Technological University, Ahmedabad.
- External Expert Member, Faculty of Doctoral Studies and Research, Nirma University, Ahmedabad
- Member, Board of Studies, Charotar University of Science and Technology, Changa, Gujarat
- Member, Board of Studies, SATCOM (Satellite Communications) Course conducted by Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP – affiliated to the United Nations), IIRS Campus, Dehradun (Headquarters) & SAC Campus, Ahmedabad
- Member, Academic Council, CU Shah University, Surendranagar, Gujarat
- Member, Board of Studies, Indus University, Ahmedabad.
- Member, Board of Studies, LDRP Institute of Technology and Research, Kadi Sarva Vishwavidyalaya, Gandhinagar
- Member, Vision Committee for guidance on various issues in RF and Microwave Engineering to strengthen the future paths in various disciplines of Science and Technology, Institute of Plasma Research, Gandhinagar.
- External Expert Member, Selection of faculty, Institute of Technology, Nirma University, Ahmedabad.
- External Expert Member, Selection of faculty, Gujarat Technological University, Ahmedabad
- Subject Expert, Faculty selection, Charotar University of Science and Technology, Changa, Gujarat
- Member, Doctoral Progress Review Committee, PhD students of Gujarat Technological University, Ahmedabad
- Expert Member, Research Progress Committee, Faculty of Doctoral Studies and Research, Nirma University, Ahmedabad
- PhD Reviewer, Charotar University of Science

- and Technology, Changa, Gujarat
- Reviewer, ME Dissertations, Gujarat Technological University, Ahmedabad
- Subject Expert, review the academic performance of ME in Wireless and Mobile Computing of Gujarat Technological University, Ahmedabad, Gujarat
- PhD Thesis Examiner, evaluation of Doctoral thesis at Mukesh Patel Institute of Technology, (Narsee Monjee Institute of Management Studies), Mumbai
- PhD Thesis Examiner, Charotar University of Science and Technology, Changa, Gujarat
- Coordinator, Co-operation with SAC under the MoU for cooperation in research and academic activities, Space Applications Centre, Department of Space, Government of India, Ahmedabad
- Expert Member, Committee for Techno-Commercial Evaluation of 220 GHz Vector Network Analyzer, Institute of Plasma Research, Department of Atomic Energy, Government of India, Ahmedabad
- Member, Antenna Test and Measurement Association, Ahmedabad
- Member, Agilent's Test Advisory Panel

#### Saurabh Tiwari

 Professional Member, Association for Computing Machinery

#### V. Sunitha

- Member, Association for Computing Machinery
- Life Member, Academy of Discrete Mathematics and Applications
- Academic Expert Member, Board of Studies, Department of Mathematics, Pandit Deendayal Petroleum University, Gandhinagar
- Expert Member, Research Progress Committee, Department of Mathematics, SRM University, Kattankulathur, Tamilnadu
- Expert Member, Research Advisory Committee, Department of Information Technology, Nirma University, Ahmedabad

# FELLOWSHIPS/VISITING SCHOLARSHIP

#### Saurabh Tiwari

 Postdoctoral Research Fellowship, funded by the Electronic Component Systems for European Leadership; Malardalens University Sweden and worked with Volvo Construction Equipment (VCE) AB, Sweden

#### **JOURNAL EDITORSHIP**

#### **Hemant Patil**

 Member, Editorial Board, Engineering Letters, International Association of Engineers

#### **Manik Lal Das**

 Associate Editor: IEEE Transactions on Dependable and Secure Computing, IEEE

# Manish K Gupta

- Associate Editor, Journal of Applied Mathematics and Computation, Springer
- Associate Editor, AIMS Electronics and Electrical Engineering, AIMS Press

#### Sanjeev Gupta

- Member, Editorial Board, International Journal of Science and Technology, ISSN: 2229-7677
- Member, Editorial Board, International Journal of Engineering and Technology Management, Bimonthly online journal published in Iran

# Yash Agrawal

- Frontiers of Mechatronics Engineering, EnPress Publisher
- Signal and Information Processing, Whioce Publishing Pte. Ltd.

# REVIEWING OF BOOK/JOURNAL/ CONFERENCE PAPERS

# **Book/Book Chapter Reviewing**

# **Manoj Kumar Raut**

 Reviewed the book, 'Neighborhood Semantics for Modal Logic,' Eric Pacuit, Switzerland: Springer, 2017, Review #: CR146435

# **Journal Paper Reviewing**

#### **Biswajit Mishra**

- IEEE Transactions on Very Large Scale Integration Systems Sensors and Actuators, IEEE
- IET Computers & Digital Techniques, IEEE

#### **Bhaskar Chaudhury**

 Physics of Plasmas, American Institute of Physics Journal

- IEEE Transactions on Plasma Science, IEEE
- Journal of Physics D: Applied Physics, IOP Publishing
- IEEE Transactions on Microwave Theory and Techniques, IEEE
- Journal of Electromagnetic Waves and Applications, Taylor & Francis Group
- European Physical Journal: Applied Physics, EDP Sciences
- Journal of Applied Physics, American Institute of Physics
- Plasma Sources Science and Technology, IOP Publishing
- Journal of Geophysics and Engineering, IOP Science

# Deepak Ghodgaonkar

- IEEE Transactions Instrumentation and Measurement, IEEE
- IEEE Transactions on Microwave Theory and Techniques, IEEE
- IEEE Transactions on Antennas and Propagation, IEEE

# **Hemant Patil**

- IEEE Transactions on Audio, Speech and Language Processing, IEEE
- IEEE Journal of Selected Areas in Signal Processing, IEEE
- Speech Communication, Elsevier
- Computer Speech and Language, Elsevier

# Jaideep Mulherkar

• Quantum Information Processing, Springer

# Kalyan Sasidhar

- IEEE Transactions on Instrumentation and Measurement, IEEE
- · Hindawi Mobile Information Systems, Hindawi

# Manik Lal Das

- IEEE Transactions on Services and Computing, IEEE
- Journal of Computer Security, IOS Press

# Manish K Gupta

- The Computer Journal, Oxford University Press
- Advances in Mathematics of Communications,
   American Institute of Mathematical Sciences
- Defense Science Journal, Defence Research & Development Organisation



#### **Rahul Muthu**

 Journal of Discrete Mathematics, Society for Industrial and Applied Mathematics

#### Ranendu Ghosh

 Journal of Geomatics, Indian Society of Geomatics

# Sanjay Srivastava

 IEEE Transactions on Intelligent Transportation Systems, IEEE

# Sanjeev Gupta

- Journal of Electromagnetic Waves and Applications, Taylor & Francis Group
- Progress in Electromagnetic Research, EMW Publishing
- International Journal of Applied Electromagnetics and Mechanics, IOS Press
- IET Circuits, Devices and Systems Journal, The Institution of Engineering and Technology
- Indian Journal of Physics, Indian Association for the Cultivation of Science
- Journal of the Indian Institute of Science, Indian Institute of Science
- Iranian Journal of Electrical and Computer Engineering, Iranian Research Institute for Electrical Engineering, JD
- International Journal of Science and Technology, IJST Publications UK
- ICTACT Journal on Communication Technology, ICTACT Journals
- ADIT Journal of Engineering, A.D.Patel Institute of Technology

#### Saurabh Tiwari

- IEEE Access: The Multidisciplinary Open Access Journal, IEEE
- IET Software Journal, The Institution of Engineering and Technology

#### V. Sunitha

• Journal of Graph Theory, John Wiley & Sons Inc.

# Yash Agrawal

- IEEE Transactions on Electromagnetic Compatibility, IEEE
- IEEE Transactions on Nanotechnology, IEEE
- IET Electronics Letters, The Institution of Engineering and Technology
- IET Micro and Nano Letters, The Institution of Engineering and Technology

- IET Microwaves, Antennas and Propagation, The Institution of Engineering and Technology
- IET Power Electronics, The Institution of Engineering and Technology
- World Scientific Journal of Circuits, Systems, and Computers, World Scientific Publishing
- Emerald COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, Emerald Group Publishing Ltd.
- Superlattices and Microstructures, Elsevier
- · Alexandria Engineering Journal, Elsevier
- Elsevier Microelectronics Journal, Elsevier
- Elsevier Microelectronics Reliability, Elsevier
- Journal of Nanoelectronics and Optoelectronics, American Scientific Publishers

#### Yash Vasavada

IEEE Journal on Specific Areas in Communication,
 IEEE

#### **Manish Khare**

- · Pattern Recognition Letters, Elsevier
- IEEE Signal Processing Letters, IEEE
- IEEE Transaction on Image Processing, IEEE
- KSII Transactions on Internet and Information Systems, Korea Society of Internet Information
- The Imaging Science Journal, Taylor & Francis Group
- SPIE Electronic Imaging Journal, SPIE
- IET Image Processing, The Institution of Engineering and Technology
- Information Sciences, Elsevier
- Journal of Healthcare Engineering, Hindawi
- Signal Image and Video Processing, Springer
- IET Computer Vision, The Institution of Engineering and Technology
- Journal of Medical Imaging and Health Informatics, American Scientific Publisher
- Computational Intelligence, John Wiley & Sons Inc.
- International Journal on Computational Vision and Robotics, Inderscience Enterprises Ltd.

# **Conference Paper Reviewing**

# **Hemant Patil**

 International Conference Acoustic. Speech and Signal Process, Calgary, Alberta, Canada, 15-20 April 2018.

- 7th International Conference on Pattern Recognition and Machine Intelligence, Kolkata, India, 5-8 December 2017
- INTERSPEECH 2017, Stockholm, Sweden, 20-24 August 2017

# Kalyan Sasidhar

- IEEE International Conference on Advances in Computing, Communications and Informatics Karnataka, India, 13-16 September 2017
- IEEE International Conference on Wireless Communications, Networking and Mobile Computing, Chongqing, China, 18-20 September, 2018

# **Manik Lal Das**

- International Conference on Distributed Computing and Internet Technologies, Bhubaneswar, India, 11-13 January 2018
- International Conference on Information Systems Security, Mumbai, India 16-20 December 2017
- IEEE Symposium on Computational Intelligence in Cyber Security, Hawaii, USA, 27 November and 1 December 2017
- International Conference on Soft Computing and its Engineering Applications, Ahmedabad, India, 1-2 December 2017

# **Manish Khare**

- Tenth Asian Conference on Intelligent Information and Database Systems, Dong Hoi City, Vietnam, 19-21 March 2018
- International Conference on Control, Automation and Information Sciences, Chiang Mai, Thailand, 31 October- 1 November 2017

# **PM Jat**

 International Conference on Computational Intelligence: Theories, Applications and Future Directions, Indian Institute of Technology Kanpur, India, 6-8 December 2017

# V. Sunitha

 Fourteenth ADMA Conference and Graph Theory Day, DA-IICT, Gandhinagar, 6-10 June 2018

# Yash Agrawal

 Fourth International Conference on Fuzzy Systems and Data Mining, Bangkok, Thailand, 16-19 November, 2018

#### Yash Vasavada

 National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics, Mandi, Himachal Pradesh, India, 16-19 December 2017

#### **INVITED LECTURES/TALKS/COURSES**

#### **Amit Mankodi**

- Design and Implementation of Relational Database, DA-IICT-AIP (Anchor Institute Program), 11-15 Jun 2018
- Introduction to programming in C, DA-IICT-JAU (Junagadh Agriculture University), 2-20 Jul 2018

# **Arnab Kumar Ray**

 A white hole under the tap, Institute for Plasma Research, 7 February 2018

# **Bhaskar Chaudhury**

- Computational investigation of Low-Temperature Plasma Experiments, Workshop on Experimental Techniques in Physics at Institute of Advanced Research, Gandhinagar, June 8, 2018.
- High-Performance Computing with GPUs, Hacker earth Webinar, December 2017

#### **Hemant Patil**

- Spoofing Attacks for Speaker Recognition, Joint tutorial with Prof. Haizhou Li and Ms. Madhu Kamble, Asia-Pacific Signal and Information Processing Association Annual Summit and Conference, 12-15 December 2017, Kuala Lumpur, Malaysia
- Speech Production, Satellite Workshop (INTERSPEECH 2018), 09-11 September 2018, DA-IICT

#### **Manik Lal Das**

 Effective Password Management in Modern Digital Space, Sardar Vallabhbhai National Institute of Technology, Surat, 19-21 March 2018

# Manish K Gupta

- The Art of DNA strings: Data Storage, IEEE ITSOC and CS-DL Invited Distinguished Speaker, University of Denver, USA, 22 June 2018
- How not to work at Google?, ADMA Discrete Mathematics and Start-up day, 9 June 2018, DA-IICT



- A Story of Computational Fashion, National Institute of Fashion Technology, Gandhinagar, 24 May 2018
- How not to work at Google?, Gujarat Student Start-up Meet at Knowledge Consortium of Gujarat, May 2018

#### Nabin Kumar Sahu

 Probability Theory, Refresher Course for Junagarh Agricultural University, DA-IICT 02-21 July 2018

# Sanjeev Gupta

- Integrated Active Antennas, One Week Short Term Training Program under Career Advancement Scheme on "RF Antenna and Electromagnetics", KJ Somaiya College of Engineering, Mumbai, 22 June 2018
- Microwave Mixers for MTech Students, EC Department at Institute of Technology, Nirma University, 21 April 2018
- Issues and Challenges in Wireless System Design, DTE-sponsored Five-day Faculty Development Programme on 'Evolutionary Trends in Signal Processing and Wireless Communication,' Institute of Infrastructure Technology Research And Management (IITRAM), Ahmedabad, 19-23 March 2018
- Integrated Active Antennas for MTech Students, EC Department, Charotar University of Science and Technology, Changa, Gujarat, 9 March 2018
- Maxwell's Equations, EC Department, Charotar University of Science and Technology, Changa, Gujarat, 9 October 2017
- RF/Microwave Integrated Circuits, EC Department, Charotar University of Science and Technology, Changa, Gujarat, 12 September 2017

#### **Shweta Garq**

 Invited Speaker, Grand Education Fair, Government of Gujarat, Gujarat University, Ahmedabad February 2018

#### Yash Vasavada

 STTP on Advanced Engineering Optimization through Modern Computing Techniques, BVM Engineering College, Vallabh Vidyanagar, 21 December 2017  Machine Learning - An approach to achieve Artificial Intelligence and its applications, Charotar University of Science and Technology University, 22 December 2017

#### V. Sunitha

- Third State Level Multidisciplinary Symposium, Silver Oak College of Engineering and Technology, Ahmedabad, December 2017
- ACM-India Summer School on Graph Theory and Graph Algorithms, IIT Gandhinagar, Gandhinagar, June-July 2017

# CONFERENCE/WORKSHOP SESSION CHAIR/PARTICIPATION

#### **Arnab Kumar Ray**

- Vision & Exploration for Planetary Sciences in Decades 2020-2060, Physical Research Laboratory, Ahmedabad, 8-10 November 2017
- PRL Conference on Condensed Matter Physics-2018, Physical Research Laboratory, Ahmedabad, 15-16 March 2018

#### **Bhaskar Chaudhury**

 Twenty fourth IEEE International Conference on High-Performance Computing, Data, and Analytics, Jaipur, 18-21 December 2017

# Deepak Ghodgaonkar

 IEEE MTT-S International Microwave and RF Conference (IMaRC), Hyatt Regency, Ahmedabad, 11-13 December 2017

#### **Hemant Patil**

- Chair, Satellite Workshops, INTERSPEECH 2018, Hyderabad, 02-06 September 2018
- Session Chair, 7th International Conference on Pattern Recognition and Machine Intelligence (PReMI), ISI Kolkata, 5-8 December 2017
- Presented research paper, International Conference on Acoustics, Speech, and Signal Processing 2018, Calgary, Canada, 16-20 April 2018
- Attended, Workshop on Brain, Computation and Learning, IISc Bangalore, 08-13 January 2018
- Presented research papers and a tutorial, Asia-Pacific Signal and Information Processing

- Association Annual Summit and Conference, Kuala Lumpur, Malaysia, 12-15 December 2017
- Presented research papers, 7th International Conference on Pattern Recognition and Machine Intelligence (PReMI), Kolkata, India, 5-8 December 2017
- Presented a poster paper, 5th Global Conference on Cyberspace, The Ministry of Electronics and Information Technology (MeitY), Government of India, New Delhi, 23-24 November 2017
- Presented research papers and tutorials and a satellite workshop, 25th European Signal Processing Conference (EUSIPCO 2017), Kos Island, Greece, 28 August - 2 September, 2017

#### **Manik Lal Das**

 Security and Privacy Challenges in the Digital Age, State-level Seminar Series on Emerging Technologies, Ahmedabad, 20-22 December 2017

# Manish K Gupta

 Fourteenth Annual Conference of Academy of Discrete Mathematics and Applications (ADMA), DA-IICT, 6-10 June 2018

# **Manoj Kumar Raut**

- Session chair, 17th International Conference on Intelligent Systems Design and Applications (ISDA 2017), New Delhi, 14-16 December 2017
- Workshop on Blockchain Technology and Applications, DA-IICT, 7-8 July 2018

#### **Puneet Bhateja**

 14th Annual ADMA Conference and Graph Theory Day, 6-10 June 2018

#### Sanjeev Gupta

- IEEE MTT-S International Microwave and RF Conference (IMaRC 2017), Ahmedabad, 11-13 December 2017
- Keysight Technology Day Seminar on RF Technologies, Ahmedabad, 30 January 2018

## Saurabh Tiwari

- 11th IEEE International Conference on Software Testing, Sweden, 9-13 April 2018
- ICSE 2018 40th International Conference on Software Engineering, Gothenburg, Sweden, 27 May - 3 June 2018

- STAF 2018 Software Technologies: Applications and Foundations, Toulouse, France, 25-28 June 2018
- 13th International Workshop on Mutation Analysis (MUTATION), co-located with 11th IEEE International Conference on Software Testing, Sweden, 9-13 April 2018
- 2nd International Workshop on Software Engineering Education for Millennials! (SEEM 2018), co-located with 40th International Conference on Software Engineering, Gothenburg, Sweden, 27 May - 3 June 2018
- 1st International Workshop on Model-Driven Engineering for Design-Runtime Interaction in Complex Systems (MDE@DeRun) Co-located with STAF 2018, Toulouse, France, 28 June 2018

#### Yash Vasavada

- ICACCI 2017, International Conference on Advances in Computing, Communications and Informatics, Manipal University, 14 September 2017
- 2017 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), C. V. Raman College of Engineering, Bhubaneshwar, Odisha, 18 December 2017
- 2017 IEEE MTT-S International Microwave and RF Conference (IMaRC), Hyatt Regency, Ahmedabad, December 2017

# **CONFERENCE PROGRAM COMMITTEE**

# **Bhaskar Chaudhury**

- Session Chair, NTU-Singapore-India Connect and DA-IICT Workshop on Data Science, July 2017
- Member Finance Committee, 14th Annual ADMA Conference & Graph Theory Day, DA-IICT, Gandhinagar, 06 – 10 June 2018

# Deepak Ghodgaonkar

 Co-Chair, Student Design Competition, IEEE MTT-SInternational Microwave and RF Conference (IMaRC), Hyatt Regency, Ahmedabad, 11-13 December 2017

#### **Hemant Patil**

 Member, Program Committee, WiSSAP 2018, IIT Guwahati, 19-22 January 2018



 Ninth International Conference on Advances in Pattern Recognition (ICAPR 2017), Bangalore, 27-30 December 2017

#### **Manik Lal Das**

- Technical Program Committee member: International Conference on Distributed Computing and Internet Technologies (ICDCIT 2018), Bhubaneswar, 11-13 January 2018
- Member, Technical Program Committee, International Conference on Information Systems Security (ICISS 2017), Mumbai, 16-20 December 2017
- Member, Technical Program Committee, IEEE Symposium on Computational Intelligence in Cyber Security (IEEE CICS™ 17), Hawaii, USA, 27 November - 1 Dec 2017
- Member, Technical Program Committee, International Conference on Soft Computing and its Engineering Applications, Ahmedabad, 1-2 December 2017
- Blockchain Technologies and Applications, DA-IICT, Gandhinagar, 7-8 July 2018

# Manish Khare

- Organized Special session on Computational Imaging on Vision (CIV 2018), 10th Asian Conference on Intelligent Information and Database Systems (ACIIDS 2018), Dong Hoi City, Vietnam, 19-21 March, 2018
- Technical Committee, 3rd International Workshop on Pattern Recognition (IWPR 2018), Jinan, China, 19-21 May 2018
- Program Committee, International Conference on Control Automation & Information Sciences, 2017 (ICCAIS 2017), Chiang Mai University, Chiang Mai, Thailand, 31 October – 1 November 2017

#### Manish K Gupta

- Fourteenth Annual Conference of Academy of Discrete Mathematics and Applications (ADMA), DA-IICT, 6-10 June 2018
- Convener and Program Co-chair, 14th Annual Conference of Academy of Discrete Mathematics and Applications (ADMA), DA-IICT, -10 June 2018

#### **Rahul Muthu**

 Member Organising Committee: ADMA, 2017, DA-IICT, 6-10 June 2018

### Sanjeev Gupta

- Chair, Organising Committee, 14th Annual Academy of Discrete Mathematics (ADMA) Conference, DA-IICT, Gandhinagar, 6-10 June 2018.
- Member, Program Committee, International Conference on Internet of Things for Technology Development (IoT4TD-2017), Kadi Sarva Vishvavidyalaya, Gandhinagar, Gujarat, 1-2 August 2017

#### Saurabh Tiwari

 Workshop on 'Emerging Software Engineering Education' IIIT Hyderabad, Co-located with 11th Innovations in Software Engineering Conference, IIIT Hyderabad, 9-11 February 2018

#### V. Sunitha

- Chair, Organizing Committee, 14th Annual ADMA Conference and Graph Theory Day, DA-IICT, Gandhinagar, 6-10 June 2018
- Member, Program Committee, 14th Annual ADMA Conference and Graph Theory Day, DA-IICT, Gandhinagar, 6-10 June 2018

# Yash Agrawal

- Technical Program Committee member, International Conference on Signals, Machines and Automation (SIGMA- 2018), Netaji Subhash Institute of Technology, Delhi, 23-25 February 2018
- One Week Workshop on Digital System Architecture Realization using HDL and FPGA, DA-IICT, 4-8 June 2018

# SPONSORED RESEARCH PROJECTS

#### Alka Parikh

 Using Mobile Sensor Mechanisms to Assess Smart Phone Addiction and Its Negative Impact on Students, Alka Parikh and Kalyan Sasidhar, Indian Council of Social Science Research

# **Bhaskar Chaudhury**

 Kinetic Modeling of Large size Negative Ion Sources for Fusion Application using Emerging Parallel Processing Computer Architectures. Principal Investigator Bhaskar Chaudhury; Co-Principal Investigator: Mukesh Tiwari. Sponsor:

- Department of Atomic Energy (DAE)/ Board of Research in Nuclear Sciences (BRNS),
- Modeling and Simulation of a Non-invasive Approach for the Electromagnetic Field (EMF) Assessment inside Human Subject exposed to CPS Wireless Infrastructure. Principal Investigator
   Rajendra Mitharwal; Co- Principal Investigator: Bhaskar Chaudhury. Sponsor: ICPS program, ICPS division, DST, Government of India

# **Biswajit Mishra**

 Establishment of Design Lab, Biswajit Mishra and Sanjeev Gupta, DST, Government of Gujarat

# Deepak Ghodgaonkar

- Development of Microwave Absorber (Carbonyl Iron Filled Silicon Rubber Sheets) in 1 to 8 GHz range, Name of Funding Agency Space Application Centre, ISRO, Ahmedabad (RESPOND Program), Principal Investigator -Prof. Deepak K Ghodgaonkar, Co-Investigator Prof. Sanjeev Gupta
- Ultra-Wide Band Dielectric Resonator Antennas, Name of Funding Agency Space Application Centre, ISRO, Ahmedabad (RESPOND Program), Principal Investigator - Prof. Deepak K Ghodgaonkar, Co-Investigator Prof. Sanjeev Gupta

# **Hemant Patil**

- Development of Text to Speech Synthesis (TTS)
   System in Indian Languages: High-quality text
   to speech synthesis and small footprint TTS
   integrated with disability aids
- Speech-Based Access of Agricultural Commodity Prices and Weather Information in 11 Indian Languages/Dialects
- DST FIST Proposal to develop the Center of Excellence in Signal Processing and Communications, Submitted on 15 June 2018, and under review. (Principal Investigator)
- Consortium Members: IIT Madras (project coordination), CDAC, Tiruvananthapuram, CDAC, Mumbai, CDAC, Kolkata, IIIT Hyderabad, IISc, Bangalore IIT, Guwahati, SSNCE, Chennai, University of Guwahati, DA-IICT Gandhinagar, IIT, Kharagpur, IIT, Mandi. (Principal Investigator from DA-IICT: Prof. Hemant A. Patil.)

 Consortium Members: IIT Madras (overall project coordination), TIFR Mumbai, IISc Bangalore, IIIT Hyderabad, IIT Guwahati, IIT Bombay, IIT Kanpur, IIT Kharagpur, DA-IICT Gandhinagar, CDAC Kolkata, IIT Bhubaneshwar, BIT Mesra. (Principal Investigator). Principal Investigator from DA-IICT: Prof. Hemant Patil

#### Kalyan Sasidhar

 Using Mobile Sensing Mechanism to Assess Smart Phone Addiction and its Negative Impact on Students, Alka Parikh and Kalyan Sasidhar, Indian Council of Social Science Research

#### **Manik Lal Das**

 Study of Privacy, Accountability and Ownership in IoT, Manik Lal Das (Principal Investigator) and A. Mathuria (Co-Principal Investigator), DA-IICT, India. Lafourcade Pascal (Principal Investigator) and Gerard Chalhoub (Co-Principal Investigator), University Clermont Auvergne, France. Department of Science and Technology, Government of India under Indo-French Collaborative Research Programme under DST-INRIA-CNRS Targeted Programme

#### Ranendu Ghosh

- Detection of Heavy Metal Pollution in Vegetation and Charaterisation of Soil Clay Minreals using AVIRIS-NG Data, Ms. Swati Priya
- Desertification and Land Degradation: Monitoring, Vulnerability Assessment and Combating Plans, Sh Viral Dave and Ms. Megha Pandya

### Sanjeev Gupta

 Ultra Wideband Dielectric Resonator Antenna, Sponsor: SpSAC-ISRO, Department of Space, Government of India, Prof. Deepak Ghodgaonkar & Prof. Sanjeev Gupta

# Saurabh Tiwari

 UCMA: A Toolset to Automatically Analyze Functional Requirements Specified in the Use Cases, Dr Saurabh Tiwari, DST-SERB, Government of India

#### Yash Vasavada

 Enhanced Design of Return Link Dedicated Bursts and Return Link Burst Demodulator at the Hub. Team Members: Yash Vasavada, Sponsor: SAC ISRO



#### **VISIT TO INSTITUTES/ INDUSTRIES**

#### **Hemant Patil**

- SJTU Shanghai, China. April 13, 2018
- Fudan University, China, April 23, 2018
- University of Calgary, Biometrics Labs, Department of Electrical Engineering, 16 April 2018, and 23 April 2018
- Government College of Engineering, Gandhinagar, Gujarat, 30 July 2018
- KIIT Gurgaon, India, 12 April 2018
- Shri Guru Gobind Singhji Institute of Engineering and Technology, Maharashtra, 29 January 2018

#### Kalyan Sasidhar

 Space Applications Centre, ISRO for research collaborations, March 2018

#### Manish K Gupta

• University of Denever, USA, June 2018

#### Sanjeev Gupta

- First Advisory Committee Meeting of Directorate of Research and Innovation, Nirma University, Ahmedabad, 5 August 2017
- Thirteenth Board of Studies (BoS) Meeting of EC Department of Electronics and Communication Engineering, Charotar University of Science and Technology, Changa, Gujarat, 26 August 2017
- Faculty Board Meeting, Charotar University of Science and Technology, Changa, Gujarat, 26 August 2017
- SSIP (Student Start-up and Innovation Policy)
   Grant Proposal Presentation to Directorate of
   Technical Education, Government of Gujarat,
   Gandhinagar, 1 September 2017
- Fifty ninth Governing Council Meeting of Gujarat Industrial Research and Development Agency (GIRDA), Autonomous Institute under Department of Industries and Mines, Government of Gujarat, Vadodara, 4 September 2017
- Meeting of Interim Committee for recognition of PhD Supervisors in the discipline of EC Engineering, Gujarat Technical University, Ahmedabad, 29 September 2017
- Thirty fourth Meeting of Faculty of Doctoral Studies and Research, Nirma University, Ahmedabad, 22 September 2017

- FIST (Fund for Improvement of S&T Infrastructure)
   Proposal Presentation to DST, New Delhi, Indian
   National Science Academy, New Delhi, 28
   October 2017
- Review and Presentation of RESPOND Project on Ultra-Wideband Dielectric Resonator Antenna, Space Applications Centre (SAC), Department of Space, Government of India, Ahmedabad, 2 November 2017
- Reviewer of MTech Dissertations, Charotar University of Science and Technology, Changa, Gujarat, 29 November 2017
- External Expert of SAC Promotion Interview Committee (Scientist-SC to Scientist-SD), Space Applications Centre (SAC), Department of Space, Government of India, Ahmedabad, 15 December 2017
- Member of the Selection Committee for the selection of PhD Supervisors in the discipline of EC Engineering, Gujarat Technical University (GTU), Ahmedabad, 22 December 2017
- Award received on behalf of DA-IICT for Research Excellence in SSIP (Student Startup and Innovation Policy) at Grand Education Fair organized by Government of Gujarat, Ahmedabad, 2 February 2018
- Second Advisory Committee Meeting of Directorate of Research and Innovation, Nirma University, Ahmedabad, 3 February 2018
- External Expert of the Selection Committee for selection of Associate Professors, Department of Electronics and Communication Engineering, Institute of Technology, Nirma University, Ahmedabad, 8 March 2018
- External Expert at Research Week, Gujarat Technological University (GTU), Ahmedabad, 14 March 2018
- Research Council Meeting, IIIT Vadodara, 156 March 2018
- 35th Meeting of Faculty of Doctoral Studies and Research, Nirma University, Ahmedabad, 17 March 2018
- Doctoral Progress Committee Meeting of PhD Student, Pandit Deendayal Petroleum University, Ahmedabad, 21 March 2018

- Third Senate Meeting of IIIT Vadodara, 23 March 2018
- External Expert (EC Engineering Antennas) at Research Week, Gujarat Technological University, Ahmedabad, 17 April 2018
- Board of Studies Meeting of EC Department of Electronics and Communication Engineering, Charotar University of Science and Technology, Changa, Gujarat, 23 April 2018
- Reviewer of MTech and PhD Dissertations, Charotar University of Science and Technology, Changa, Gujarat, 28 April 2018
- Meeting of Interim Committee for scrutiny of applications for PhD Supervisors in the discipline of EC Engineering, Gujarat Technical University, Ahmedabad, 8 May, 2018
- External Expert of the Interview Committee for PhD candidates, Department of Electronics and Communication Engineering, Institute of Technology, Nirma University, Ahmedabad, 19 May 2018
- 60th Governing Council Meeting of Gujarat Industrial Research and Development Agency (GIRDA), Autonomous Institute under Department of Industries and Mines, Government of Gujarat, Vadodara, 21 May 2018
- External Expert of the Test Team for the testing of Gyrotron at 42 GHz (developed by IPR), Institute

- of Plasma Research (IPR), Gandhinagar, 29 May 2018
- Fifth Board of Governors Meeting, IIIT Vadodara at Mumbai, 21 June 2018
- External Expert of SAC Promotion Interview Committee (Scientist-SC to Scientist-SD), Space Applications Centre (SAC), Department of Space, Government of India, Ahmedabad, 26 June 2018.
- External Examiner for examination of MTech theses (by research), Department of Electronics and Communication Engineering, Institute of Technology, Nirma University, Ahmedabad, 30 June 2018
- External Expert of the Interview Committee for PhD candidates, Department of Electronics and Communication Engineering, Institute of Technology, Nirma University, Ahmedabad, 7 July 2018
- Sixty first Governing Council Meeting of Gujarat Industrial Research and Development Agency (GIRDA), Autonomous Institute under Department of Industries and Mines, Government of Gujarat, Vadodara, 19 July 2018
- PhD Thesis Examination at Narsee Munjii Institute of Management Sciences, University of Mumbai, Mumbai, 27 July 2018





# **AWARDS/HONOURS**

#### **Hemant Patil**

- DA-IICT Team consisting of Prof. Hemant A. Patil, UGC scholar Ms. Madhu R. Kamble, DeitY ASR Phase-II project staffs, Ms. Tanvina B. Patel and Mr. Meet Soni, awarded Eighth Rank in 'ASV Spoof Challenge 2017', INTERSPEECH 2017, Stockholm, Sweden, 20-24 August 2017
- International Speech Communication Association (ISCA), awarded a grant of 650 Euros to Ms.
   Madhu Kamble, UGC PhD Scholar, to present joint research papers, co-authored with Prof. Hemant A. Patil, INTERSPEECH 2017, Stockholm, Sweden, 20-24 August 2017

#### ANY OTHER SIGNIFICANT CONTRIBUTIONS

#### Alka Parikh

 Started Mobile Science Van, Vigyaan Shala, that would visit government schools to show science experiments and incite students' interest in science

#### **Amit Bhatt**

 Lead the team in bringing in 10 crore rupees project, which would make DA-IICT an Anchor Institute for the State of Gujarat. This grant was awarded by the Center of Entrepreneurship Development (CED), Department of Industries and Mines. The charter is to train faculty members in industries relevant skillset.

### **Bhaskar Chaudhury**

- Principal investigator and Author of Lets HPC project (www.letshpc.org)
- Member, The LXCAT Team (www.lxcat.net), the Plasma Data Exchange Project

# **Biswajit Mishra**

 External Examiner (PhD and MTech): SVNIT, Surat, GTU, Ahmedabad University, Nirma University

# Deepak Ghodgaonkar

- Coordinator for the MOU between DA-IICT-UiTM. DA-IICT signed an MOU with Microwave Research Institute, Universiti Teknologi MARA (UiTM), Malaysia on 7 May 2018
- External Examiner PhD thesis of Daw Mohammad Abdalhadi, Faculty of Science, Universiti Putra Malaysia (UPM), Malaysia, April 2018
- Participated as External Expert in Department Promotion Committee (SE to SF) of SAC, ISRO, and Ahmedabad on 12 June 2018

#### Manish K Gupta

- Moderated the panel discussion on Existing Government Policies and their Impact on the Technology Commercialization Process in the Indian Scenario at Empresario 2018 at Entrepreneurship Institute of India, Ahmedabad, March 2018
- Presentation on DNA codes using the ring Z\_4+wZ\_4, IEEE International Symposium on Information Theory (ISIT), Vail, USA, June 2018



# Faculty and Staff Updates

#### **FACULTY**

The faculty consisted of regular faculty, adjunct faculty on full time on a semester basis and visiting faculty who taught specialized courses in all Programs. The list of faculty is given in at **Annexure 3**.

### **New Faculty**

The following faculty have joined the Institute during 2017-18:

- Pankaj Kumar joined as Associate Professor, on 13 July 2018
- Bakul Gohel joined as Assistant Professor, on 18 July 2018

# **Faculty Resignation**

- Sarita Agrawal, Faculty Associate, on 15 December 2017
- 2. Santanu Koley, Assistant Professor, on 31 May 2018
- Manish Narwaria, Assistant Professor, on 23 July 2018

# **STAFF**

#### **New Staff**

- Rahul Vashisth joined as Junior Research Fellow, on 01 August 2017
- Julfikar Ahmed joined as Library Trainee, on 01 August 2017
- 3. Vishal Puri Goswami joined as Library Trainee, on 01 August 2017
- 4. Abid Fakhre Alam joined as Library Trainee, on 08 August 2017
- Viral Dave joined as Junior Research Fellow, on 05 September 2017
- 6. Dharmik Mehta joined as Laboratory Assistant, on 08 January 2018
- 7. Tanvi Rangwala joined as Consultant, on 15 January 2018
- 8. Swati Priya joined as Junior Research Fellow, on 01 February 2018
- Nitin Gamit joined as Library Trainee, on 12 March 2018
- 10. Megha Pandya joined as Junior Research Fellow, on 02 April 2018
- Surupendu joined as Junior Research Fellow, on 01 June 2018
- 12. Sneha Thakker joined as Manager, Placement, on 25 June 2018

# **Staff Resignation**

- Firoja Shaikh, Laboratory Assistant, on 02 August 2017
- Krupa Kinkhabwala, Laboratory Assistant, on 02 August 2017
- 3. Suryakantgiri Goswami, Laboratory Assistant, on 17 October 2017
- 4. Vishal Puri Goswami, Library Trainee, on 20 January 2018
- 5. Sunil Jain, Manager-Placement & CEP, on 31 May 2018
- 6. Trupti Barot, Library Trainee, on 02 June 2018
- 7. Mukesh Thaker, Secretary, on 22 June 2018





# Student Activities and Achievements

The students plan, organize and enjoy a rich array of activities on campus encompassing cultural, social and educational contents through student's bodies and clubs. They range from music concerts, theaters, folk and classical dances to coding, educational and professional competitions. The Student Body Government (SBG), an elected body of the students consisting of 7 Committees and some 15 Student Clubs provides leadership to these activities. The Institute of Electrical and Electronics Engineers (IEEE) Student Branch at DA-IICT constantly promotes the opportunities that exist in the field of electronics and electrical engineering among students through various educational programs. These activities provide a variety of engagement opportunities to students on the campus and what is learned through organizing and managing these activities inculcates leadership qualities and communication skills in them, which directly correlate with skills and attributes that employers are seeking of our graduates.

# **STUDENT ACTIVITIES**

# **Cultural Committee**

# Cultural Weekend (13-14, August)

The cultural weekend was specially organized for the freshers to make them feel comfortable on the campus and make new friends. The 3-day long event had Cafeteria day, Student Activity Centre (SAC) day and Open Air Theater (OAT) day. Cafeteria day had a Treasure Hunt organized for the freshers. The SAC day saw some fun events like tug of war, spin and kick and boom with your bum. Finally, on OAT day housie, painting, rangoli, sketching competitions and karaoke night were conducted.

#### Janmashtami (25 August)

Janmashtami, the birthday of Lord Krishna, was celebrated with great enthusiasm. The students participated in '*Matki-Fod*,' regarded as one of the most celebrated festivals at DA-IICT.

# **Ganesh Chaturthi (5-7 September)**

Ganesh Chaturthi was celebrated for three days on campus. The students concluded the celebration with idol immersion.

# **Teachers Day (5 September)**

The invites for the Teachers Day were hand-made by the first-year students. The freshers dedicated to the faculty the musical performance, drama, dance act, stand up comedy and pieces of poetry. The students also honoured their teachers by presenting them with mementos.

# Eid (13 September)

The celebration of all festivals is the specialty of the Cultural Committee. Eid was celebrated by distributing sweets among the student community.

# **Maniere - The Fashion Night (15 September)**

Maniere acts as a window for the fashion enthusiasts to showcase their skills as costume designers, thinkers, presenters and show stoppers. Displaying creative and inspiring concepts through fashion designing, ramp walks is the USP of Maniere. The students individually and as groups presented traditional and modern attire designs before the audience.

#### **Garba Night (5 October)**

Navratri festival is celebrated to worship the nine forms of Goddess Durga, the Goddess of Power. The campus had its share of celebrations on the 5<sup>th</sup> day of the festival. The students from other Institutions also participated. A group of over 1000 students played Garba in traditional attire and also danced to the beats of the DJ.

#### Ramleela (10 October)

The victory of Lord Ram over Ravan was celebrated through a dramatic enactment of the story of the victory of good over evil. The play was specifically directed by sophomores and the actors were mostly the freshers. It served as a good confidence booster for freshers. Ravan Dahan, the burning of the effigy of Ravan, the demon King was carried out after Ramleela.

# Diwali (30 October)

Diwali, the most celebrated festival encountered a semester break for the students. The students who stayed back on campus celebrated Diwali in a customary manner.

# Rangmanch- Drama night (1-2 October)

The drama night had three categories: Stage play, Mime and Felicity. Four stage plays and two mime performances were staged. Students from all batches participated with great enthusiasm.

#### Lohri (13 January)

Lohri is a popular Punjabi folk-festival celebrated in the northern regions of the country. It marks the end of the winter season and welcoming the longer days and the Sun's journey to the northern hemisphere. The students gathered at the venue in large numbers, enjoyed the warmth of the bonfire and each other's companionship.

# Makarsankranti (14 January)

Makar Sankranti or Uttarayan refers both to a specific solar day in reverence to deity Surya (sun) that is observed in January every year. It marks the first day of Sun's transit into the Makara (Capricorn), marking the end of the month with the winter solstice and the start of longer days. Being the first festival after the winter vacation, students enthusiastically flew kites.

# Raaga and Rhyme (24 January)

Raaga and Rhyme is a music and rhyme competition where students from all batches participated. It included solo, duet, instrumental and group performances of Indian and Western music category.

# Waltz-Dance Night (11 April)

Dance Nite or Waltz is a dance competition where

students from all batches show their enthusiasm and energy in the form of mesmerizing dance performances. Three categories under this event solo, duet/trio and group, were conducted.

# **Sports Committee**

# Inter-hostel wing Tournaments (September - October)

The Sports Committee organized Inter-hostel wing tournaments. The main aim of the tournament was to drive the interest of students towards sports for their overall development. The tournaments included Badminton, Table Tennis, Volleyball, Basketball, Chess, Cricket and Football. A captain was selected for each hostel wing to make teams. The PG students who do not live in hostels participated by forming their own teams. The tournament was conducted at the beginning of the semester so that the new batches could showcase their talent and meet the seniors of similar talent.

# Concours 2017: Annual Sports Festival - (10-13, November)

Concours is recognized as one of the biggest sports festivals conducted by a University in Gujarat. Students from various Universities, Institutes, and colleges took part in the festival. Sports included were Badminton, Table Tennis, Volleyball, Basketball, Chess, Cricket and Football. Students from Pandit Deendayal Petroleum University, Gandhinagar, took away the overall championship trophy.

# **Hostel Management Committee**

#### **Cleanliness Drive**

With the participation of inmates, Hostel Management Committee (HMC) worked as an interface between the administration and hostel inmates in keeping the hostels clean and to encourage cleanliness etiquette among hostels. The HMC members visited rooms, floors and evaluated them based on various parameters. The



rooms and the floors with the highest marks were shortlisted and awarded on the final day.

# **Annual Festival Committee**

#### Youth Run

The students organized the Youth Run, under the umbrella of the techno-cultural festival of Synapse to demonstrate their support for programs that lead to the betterment of society. It is a great display of what they are passionate about. The Youth Run 2017 was held on 22 January 2017 highlighting the initiatives of Gandhinagar Municipal Corporation such as Smart City Services, Swachh Bharat Abhiyan and awareness about AIDS.

# Synapse 2017 (February 23-26)

Synapse is the annual techno-cultural fest of the students. It is the celebration of culture, technology and life. It is a time when the student community comes forward to show its intensity, passion and enthusiasm--be it through participating or organizing artistic, cultural and technology events. In the year 2017, the festival was held during 23-26 February. The festival ended with the celebrity night by Mr. Sonu Nigam, the talented playback icon singer. He mesmerized the crowd with his extraordinarily melodious voice and entertained the crowd with his mimicry skills.

#### **Press Club**

# **Freshers Creative Writing Contest**

The Press Club organized a creative writing contest for the freshers in August 2017. The contest was aimed at motivating students to shed their inhibitions and share their creations with the community. The contest received a positive response from the batch with some very brilliant creations.

# **Theatre Group**

# Ramleela play (10 October)

Ram Leela play was performed on the occasion of Dusshera. The original story of Ram Leela was enacted with some creative twists and a witty and

humorous story was presented before the audience to make it lively and humorous. Enacted by first-year students, it provided a good participating platform for them. The play was followed by a monologue depicting the racial and caste system in society and what it would have been like if Lord Rama was witnessing them all.



# **Teachers Day Play (5 September)**

The first Open Theatre event of the autumn semester is the chance for the freshers to showcase their talents. According to Theatre Group, a play is performed by the first-year students that are directed by the second-year students. This year's play was a treat like a few third-year and fourth-year students made special appearances. The play was quite gripping as the story revolved around DA-IICT, carrying few punches that cracked up the audience.

#### **Gender Sensitization Play (10 August)**

The sensitization play was performed specially for freshers to sensitize them about gender discrimination going on around them. The event started with a brief speech on gender and sex by the Conveners of the Gender Cell Akshay Miterani and Kritika Somani, followed by a play written by Prof. Shweta Garg. The play had five segments covering topics such as female abuse and homosexuality. The response

from the audience was overwhelming. Freshers were further divided into groups of about ten along with a mentor of senior class and discussions were held. It ended with a healthy discussion leading to better interaction of the freshers with the seniors.

#### Sambhav

#### **Blood Donation Camps**

A blood donation camp was organized once in a semester. The objective is to educate and spread blood donation awareness among the youth and its benefits. The camp was organized for a full day and the collection ranged from 120-150 units.

# Visit to Old Age Home

Sambhav has been associated with Rahelba Vruddhashram, an old age home, for many years. Thirty students visited the home and interacted with inmates. For the majority of the students, this was the first visit to such a home. The interactions they had with some 40 residents were enriching.

# **Electronics Hobby Club**

# Basics of Arduino and working of LDR (10 September)

The students were made familiar with the Arduino board by giving the basic information about the board and its applications. The volunteers explained to them the LED blink code so that they could get the gist of programming semantics in embedded C. Further, they were given the task of writing the code for reading the LDR sensor values and displaying them on the serial monitor by explaining the workings of LDR and uses of each pin of Arduino board.

# Ultrasonic Sensor (SR04) and Temperature Sensor (LM35) (17 September)

The students were given detailed explanation about the working and applications of an ultrasonic sensor and its different pins. The students developed the code for displaying the distance of the object placed in front of the sensor. The workings of temperature sensors were explained and were made to write the code for reading sensor values and displaying those on the serial monitor.

# IR Sensor and 16\*2 LCD (24 September)

The session introduced the students to wireless communication. They made the circuit for IR communication, which consisted of the transmitter, IR sensor, and receiver IR sensor, both connected to different Arduino boards. The transmitted strings of characters were displayed on the serial monitor with the help of the receiver IR sensor connected with the Arduino board. Later, the students were introduced to the LCD library and its usage. Finally, the students were given the task of writing the code for displaying their names on the LCD.

# Manual Robotics Workshop (1 November)

The workshop catered to the groups of 5 entrants who got to take robo-kits containing a Bluetooth module, an Arduino, a set of motors, a castor wheel, two wheels, jumper wires, a battery, a motor driver and a voltage regulator (LM 7805).

# Basics of Raspberry Pi and OS installation (20 January)

The students built familiarity with the Raspberry Pi board by giving the basic information about the board and its applications, including the LED blink code for getting the gist of programming semantics in embedded python.





# Real life Problem-Solving competition (27 January)

The students have explained the working and applications of the Raspberry Pi board and its different pin configurations. The students wrote the code for a Traffic Light simulation. Few students even came up with many innovative ideas through their knowledge of electronics and done projects using minimised hardware materials. Three winners received the cash prizes.

# Workshop on Hostel Automation (10-11 February)

The workshop catered to groups of up to 5 entrants who got to take a complete Digital Assistant on Raspberry Pi and Bluetooth Communicating Application.

# **Heritage Club**

#### Gotipua (10 August)

The club organised the dance musical programme 'Gotipura' sponsored by Spic-Macay. Gotipua is a traditional dance form in the State of Odisha. It has been performed for centuries by young boys, who basically dress as women paying tribute to Lord Jagannath and Krishna. The dance music was done by a group of young boys who posed and articulated in various acrobatic positions inspired by the life of Radha and Krishna.

# **Microsoft Student Technical Club**

# **Cognitive Service Workshop (5 September)**

The Club conducted a hands-on workshop with Microsoft MVP, Mr. Jinal Shah. The session was conducted on the cognitive services offered by Microsoft through its Bing Web Search APIs focussing on Bing Speech API and Bing Emotion API. The session received registrations of 240 Students. The participants were able to generate the emotion and percentage of confidence of the result of the image of the person searched through speech to text using the Bing Emotion API and Bing Speech API.

# **Cloud Computing Session (6 September)**

The Club organized an introductory session on Cloud Computing. The session was conducted by speakers Prof. Lavneet Singh and Mr. Farhan Ansari, MSc (IT) second year student. The Students participated in represented UG and PG batches. Prof. Lavneet Singh guided the students about Cloud Computing with a brief introduction about Azure followed by a hands-on session on Azure. Finally, the students learned to deploy a website on Azure cloud.

# Python and Web Scraping session (14 November)

The Club conducted a lab session on Python programming language and its use in web scraping. Club members conducted the session. Attendees were given chances to implement the code and execute then and there thus, increasing clarity



among them. They were taught to scrap images from a particular website and other important features of web scraping

#### **IEEE Student Branch DA-IICT**

# Annual Technical Fest - i.Fest (21-23 October)

This is one of the biggest technical fests conducted in Gujarat and one of the three annual festivals of DA-IICT. More than 1000 students from various Universities and Colleges took part in the fest and made it memorable. Students took part in a variety of technical as well as non-technical activities.

# **STUDENT ACHIEVEMENTS**

Nine students from different courses cleared GSoC from DA-IICT. The number is increasing every year.

IEEE student branch DA-IICT has been awarded as the Best student branch in Gujarat.

Vandana Ravindran, a PhD student at DA-IICT, successfully defended her thesis on 17th January 2018. She is now the recipient of the Royal Society's Newton International Fellowship. The ratio of success for this fellowship is 2-4%.

Abhijeet Ghodgaonkar (M.Tech student and convener of Cubing Club DA-IICT) got 2nd rank in multiple blindfolded categories by solving 19 out of 21 Rubik's cubes in 53 minutes in the cubing competition held in Mumbai, 2017.

Mohib Manva, Tanmay Patel, and Deepit Patel, BTech third-year students, have received Honourable Mentions.

At the Nirma University's Sports Fest Vibes 2017, Kunal Jani won a Bronze medal in 1500 meter men category and the Chess team bagged the first prize. A Team comprising of Aashay Binaykia and Labdhi Shah, BTech students, won the British Parliamentary Debating Competition in the Novice category Organised by the Gujarat National Law University.

Theatres Group bagged second prize in street play competition Aahvaan held at Pandit Deendayal Petroleum University, Gandhinagar, as part of their annual cultural fest, Flare.

Theatres Group bagged Third prize in street play competition Nukkad held at IIM Ahmedabad

Hardik Modi, Amey Ghate, and Roshani of Microsoft Student Technical Club were selected as Microsoft Student Partners (MSP) 2017-18.





# Alumni Association Activities and Achievements

The Alumni Association, with a membership of over 4700, supports and promotes the interests of the Institute and expands awareness of its achievements within the country and abroad. The Director announced the first executive committee of the newly registered Alumni Association with Dr. Vinod Kumar Mall (2015 batch alumnus) as President at a meeting held on 19th September 2017. In this meeting, the newly elected Committee discussed matters of mutual interest particularly, on protecting and strengthening the relationship between the Institute and Alumni Association, contributions of alumni in upgrading the Institute's academic and

research activities and membership of Alumni Association, i.e., annual and life memberships.

A group of alumni representing 2003, 2009, 2011 and 2014 batches interacted with the 2018 batch of BTech students during their orientation. Similarly, another group belonging to MTech, MSc(IT), MDes and PhD graduates interacted with the 2018 batch of PG students at their orientation on 23rd July 2018. A special alumni meet was organized on campus before the Convocation on 20th January 2018 and this meeting facilitated the alumni to interact with the graduating class.





# Resource Centre

Resource Centre (RC) continued its growth journey by providing superior services and improved facilities while, at the same time, enduring to progress on our 2020 plan for building the Library of the 21st century.

Highlights of the reporting period include overhauling the index and indexing process of RC resources, aimed at its' contextual and improved discoverability. RC strived hard to enhance the user experience, promoting library services across campus, engage with users, and develop skills of RC's team of professionals. RC also focussed on upscaling its infrastructure and aesthetics.

RC continues to be the study space of choice for the students. The packed reading areas during the examinations are a testimony. RC team interacts with faculty, research scholars, staff and students to improve services, making it more flexible to support the varying learning needs of the community.

# Save the Time of the Users

The RC books have been taken up for detailed, analytical indexing. This process was in response to the users' feedback on our new KOHA catalogue. The more precise keywords, descriptors are being added to each book record to increase its inclusion during the catalogue search. It is intended to enhance the usage of the book collection which is rich and diverse in its subjects.

The Resource Centre Collections

| Collection Type             | Added<br>during<br>2017-18 | Total as of<br>31 July 2018 |
|-----------------------------|----------------------------|-----------------------------|
| Books                       | 651                        | 31607                       |
| E-books                     | 1602                       | 12093                       |
| CDs/DVDs & AV<br>Collection | 11                         | 3951                        |
| Theses & Dissertations      | 63                         | 687                         |
| Bound Volumes of Journals   | 129                        | 2799                        |

The new batches of the students were given a Library orientation with a slide show followed by a visit to the RC. The intention was to generate interest and create awareness about this important facility that will facilitate their learning.

A 3-day book exhibition was organised during the National Library Week to help RC users browse and suggest new titles from various publishers and across the domains. The exhibition had a good number of visitors that generated a large number of book suggestions.

A lecture session on 'Writing a Research Paper' was co-organised with Elsevier that highlighted the overall process, including literature search, plagiarism and the importance of editing. The lecture was attended and well-received by the faculty, students and PhD scholars.

The building interiors were re-painted, which imparted a fresh look. A large-size display monitor installed at the RC reception captures the attention of the visitors and the RC users about its new resources, current activities, training videos, etc.

# **Collaborating for Mutual Learning**

DA-IICT's doctoral dissertations harvested by the National Digital Library of India (NDLI) are getting an encouraging response. At the invitation of NDLI, Librarian attended a 3-day workshop on the copyright concerns. A Gujarati translation of NDLI page was successfully carried out.

The students of Junagadh Agricultural University made extensive use of RC during their participation in the course on Machine Learning at DA-IICT.

The RC received two library interns from the Gujarat University and one library intern from the SP University, Vallabh Vidhyanagar, Gujarat for training as a part of their Library Science Project.



#### **Research and Professional Activities**

Shashikumara A.A., Assistant Librarian, was deputed to participate in Library Technology Conclave (LTC 2018), Goa University Library, Goa, 23-25 January 2018.

Shashikumara A.A., Assistant Librarian, attended and presented the following papers at the National Conference on Open Data and Data Repository (NCODRR), Cochin University of Science & Technology, Kerala, 6-8 March 2018:

- Free and Open Source Software Tools for Implementation of Information Visualization in Libraries and Information Centers.
- Open Source Software Tools for Managing 21st Century Libraries.

Manish Mankad, Librarian, reviewed the seminar papers and chaired a session on Innovative Librarianship at the one-day Conference 'Reimaging Today's Librarianship' organized by Ahmedabad Library Network (ADINET) at Adani Institute of Infrastructure Management, Ahmedabad, on 12 August 2017. He also attended a 3-day e-book Summit organized by Springer Nature Publisher at Kochi during 7-9 September 2017

#### **Visitors**

- Dr. Maria Amante, Director of Documentation & Information Services at Instituto Universitário de Lisboa- ISCTE, Lisbon, Portugal
- Dr. T.S. Kumbar, Librarian, IIT, Gandhinagar
- Dr. L.N. Singh, HOD Physics, IIT, Mumbai
- Study tour by the faculty and the students of the Dept of Library and Information Science, University of Gujarat.
- Study tour by the faculty and the students of SDJ International College, Surat
- Lt. Cdr. Aravin Manikantan, SSO(TDEC), INS Valsura
- Dr. Sangeeta Angom, Project Coordinator, National Institute of Educational Planning and Administration, New Delhi
- Ms. Beena Parmar and Mr. Samruddhi Hawaldar, Library Professionals, IIT Bombay
- Dr. U.S. Jadhav, University Librarian, Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar
- Dr. M.G. Kerutagi, University Librarian,
   University of Agricultural Sciences, Bagalkot
- Dr. Umesha Naik, Assistant Professor, Mangalore University
- Dr. Mahendranath, Librarian, University of Agricultural Sciences, Raichur





# Infrastructure

#### **ICT INFRASTRUCTURE**

The Information and Communication Technology Committee works towards the mission to provide the best computing facilities for faculty research and student learning. During the reporting year, the Institute has invested over Rs. 200.00 lakh in upgrading existing ICT infrastructure, including hardware/software upgrades and acquiring new hardware and software.

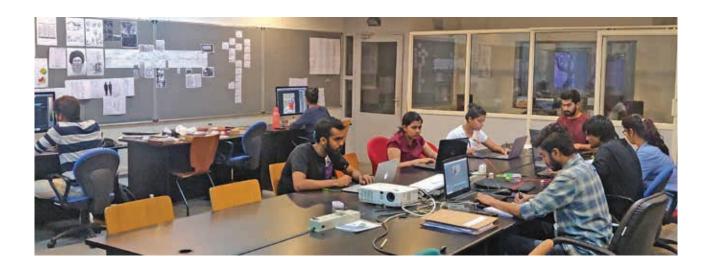
The Institute has a modern eco-friendly, fully networked campus through high-end intelligent CISCO switch with 10G support and with 1Gbps Internet Bandwidth. Campus LAN infrastructure with 1 Gbps optical fiber cable establishes connectivity between various buildings. The students on the campus have access to high-speed wi-fi connectivity. This helps them access online class lectures and assignments posted by teachers and instructions issued by the institute. Institute wireless network setup consists of 120 access points spread over various campus locations.

There are over 1100 Desktop PCs for Lab, faculty and staff use. Additionally, sixty Laptops are for the exclusive use of faculty. The Data Center with 30 servers and with 10G switch for a server farm

provides various IT services. The Institute has deployed Moodle open source software online learning management for course content hosting and submission of assignments. The Institute also deployed Network Attached Storage (NAS) to provide storage space for Post Graduate students and Doctoral Scholars.

Institute has deployed a High-Performance Computing (HPC) Cluster to meet the computing requirements of the BTech (ICT) Computational Science Program. Another setup of four high-end computing servers is also deployed for Research Scholars. For efficient use of these servers, provisions were made for off-campus access for faculty and PhD scholars via VPN whenever required.

Institute has subscribed to a campus-wide license of the popular scientific software like MATLAB and LabVIEW with tools. This is important since most of the virtual instruments have gone through major changes. The Cadence Electronic Design Automation Suite License was renewed and upgraded. To facilitate the design activities of MDes (Communication Design) students, 20 licenses of Adobe CCT were subscribed. The Turnitin, anti-plagiarism software and campus software agreement licenses were renewed.





The institute has an up-graded VMware License with new features for server virtualization and consolidation to reduce the power usage and maximum utilization of server resources.

Institute has installed 40 new wireless access points to cover new locations and also upgraded existing access points. The other up-gradations done were: (a) desktops at AIP Laboratory, (b) desktops in the CEP training room (c) desktops and laptops for faculty.

Institute has deployed 28 new high-end wireless access points to provide better speed and also deployed CCTV and surveillance systems in the new Men's Hostel.

#### LABORATORY INFRASTRUCTURE

The state-of-the-art teaching and research Laboratories at the Institute were installed with 1Gbps backbone network connectivity with intranet and internet access. The faculty and students use resources at the Laboratories to perform developmental experiments and work on projects. The Laboratories provide extensive facilities for faculty and students for research as well as audiovisual support for events such as conferences and workshops. During the reporting year electronics, audio-visual equipment, tools and software worth Rs.74.26 lakh were added to the Laboratories.

#### **CAMPUS INFRASTRUCTURE**

The Institute planned new infrastructure projects and completed the renovation of existing infrastructure facilities on the campus. The notable among them are as follows:

- Finalised Plan for new Hostel for Men: Finalised the plan to start work for two blocks of hostels having 476 seats in October 2018.
- Extension of Hostel for Women: A total of 36 rooms were constructed (J wing -12 Rooms and K wing 24 rooms) thus, creating additional 72 seats. The work was completed in July 2018.
- Construction of Additional Rooms in Hostel for Men: Work on construction of 45 additional rooms in Hostel for Men started during the reporting year.
- Renovation of Lecture Theatre 2: The work on the renovation of Lecture Theatre 2 began during the reporting year.
- Renovation of Conference Hall and Rooms 002 and 003 in CEP Building: Renovated Conference Hall, Rooms 002 (Information Retrieval Lab) and 003 (Training Room) in CEP Building.
- Construction of new security building: Construction work on new security building began during the reporting year.



# Annexure 1

# **MANAGEMENT**

# **Academic Council**

| Prof. K.S. Dasgupta, Chairman   | Director, DA-IICT, Gandhinagar   |
|---------------------------------|--|
| Shri K. Narayan, Member         | Management Consultant, Reliance Group, Mumbai  |
| Prof. Surendra Prasad, Member   | Professor, IIT Delhi, New Delhi  |
| Prof. David Koilpillai, Member  | Professor, IIT Madras, Chennai   |
| Shri Tapan Misra, Member        | Director, Space Application Centre, Indian Space Research<br>Organisation, Ahmedabad |
| Shri Suresh Rangachar, Member   | President, Reliance Communications Limited, Mumbai                                   |
| Prof. Sanjeev Gupta, Member     | Dean (Research & Development), DA-IICT, Gandhinagar                                  |
| Prof. Suman K Mitra, Member     | Dean (Academic Progams), DA-IICT, Gandhinagar  |
| Prof. Naresh Jotwani, Member    | Professor, DA-IICT, Gandhinagar  |
| Prof. Sanjay Srivastava, Member | Professor, DA-IICT, Gandhinagar  |
| Prof. Binita Desai, Member      | Professor, DA-IICT, Gandhinagar  |
| Shri Soman Nair, Secretary      | Executive Registrar, DA-IICT, Gandhinagar  |

# **Finance Committee**

| Prof. K.S. Dasgupta, Chairman | Director, DA-IICT, Gandhinagar  |
|-------------------------------|---|
| Shri Suresh Rangachar, Member | Trustee, Dhirubhai Ambani Institute of Information and Communication Technology Society, Mumbai |
| Shri Shrenik Vaishnav, Member | Vice President & Head (Consolidation), Reliance<br>Communications Limited, Mumbai               |
| Prof. Suman K. Mitra, Member  | Dean (Academic Programs), DA-IICT, Gandhinagar  |
| Shri Soman Nair, Secretary    | Executive Registrar, DA-IICT, Gandhinagar   |

# **Board of Studies**

| Prof. Suman K Mitra, Chairman | Dean (Academic Programs), DA-IICT, Gandhinagar         |
|-------------------------------|--|
| Prof. Manik Lal Das, Convenor | Convenor, Post-Graduate Programs, DA-IICT, Gandhinagar |
| Prof. Sanjeev Gupta, Member   | Dean (Research & Development), DA-IICT, Gandhinagar    |
| Prof. Ranendu Ghosh, Member   | Dean (Students), DA-IICT, Gandhinagar                  |



| Prof. Asim Banerjee, Member    | Convenor, Placement Committee, DA-IICT, Gandhinagar   |
|--------------------------------|---|
| Prof. Anil K Roy, Member       | DA-IICT, Gandhinagar  |
| Prof. Hemant Patil, Member     | DA-IICT, Gandhinagar  |
| Prof. P M Jat, Member          | Coordinator, MSc (IT) Program, DA-IICT, Gandhinagar   |
| Prof. Vishvajit Pandya, Member | Coordinator, MDes (CD) Program, DA-IICT, Gandhinagar  |
| Prof. Biswajit Mishra, Member  | DA-IICT, Gandhinagar  |
| Prof. Shweta Garg, Member      | DA-IICT, Gandhinagar  |
| Prof. Pratik Shah, Member      | Indian Institute of Information and Communication Technology Vadodara, Gandhinagar (Alumnus of DA-IICT)   |
| Shri Hasit Kaji, Member        | Tata Consultancy Services (Industry Representative)   |
| Dr. Sumitesh Sarkar, Member    | Space Application Centre, Indian Space Research Organisation (Nominated by the Academic Council)  |
| Prof. Sanjay Chaudhary, Member | Professor and Head (Research), Institute of Engineering and Technology (IET), Ahmedabad University, Ahmedabad (Nominated by the Academic Council) |

# **Internal Quality Assurance Cell**

| Prof. K.S. Dasgupta              | Director, DA-IICT - Chairman IQAC                       |
|----------------------------------|---|
| Prof. Suman K Mitra              | Dean (Academic Programs), DA-IICT - Director IQAC       |
| Shri Suresh Rangachar            | Reliance Communications – Management Member             |
| Prof. Sanjeev Gupta              | Dean (Research & Development), DA-IICT – Faculty Member |
| Prof. Ranendu Ghosh              | Dean (Students), DA-IICT – Faculty Member               |
| Prof. Sanjay Srivastava          | Alumni Board, DA-IICT – Faculty Member                  |
| Prof. Asim Banerjee              | Convenor, Placement Committee, DA-IICT – Faculty Member |
| Shri Soman Nair                  | Executive Registrar, DA-IICT – Administrative Member    |
| Shri Hasendrasinh Jhala          | Head, HR, DA-IICT – Administrative Member               |
| Shri Chirag Jain                 | TCS, Gandhinagar – Member from Employer                 |
| Shri Parikh Samarth Sanjay       | Student, DA-IICT – Student Member                       |
| Shri Makwana Bhargav Maheshkumar | Student, DA-IICT – Student Member                       |
| Shri Swapnil Khandelwal          | Alumnus, DA-IICT – Alumni Member                        |
| Ms. Anupama Panchal              | Alumnus, DA-IICT – Alumni Member                        |

#### **INSTITUTE OFFICIALS**

#### **Director**

Prof. K S Dasgupta

#### **Deans**

# **Academic Programs**

Prof. Suman K Mitra

#### **Research and Development**

Prof. Sanjeev Gupta

#### **Students**

Prof. Ranendu Ghosh

# **Executive Registrar**

Shri Soman Nair

#### **Head-HR and Administration**

Shri Hasendrasinh Jhala

# Librarian

Shri Manish Mankad

# **Internal Committees**

# **Undergraduate Committee**

Prof. Anil K Roy, Convenor

Prof. Minal Bhise, Member

Prof. Madhumita Mazumder, Member

Prof. Bhaskar Chaudhury, Member

Prof. Gagan Garg, Member

Prof. Rutu Parekh, Member

Prof. Manish Narwaria, Member

Prof. Santanu Koley, Member

Prof. Mukesh Tiwari, Member

#### **Postgraduate Committee**

Prof. Manik Lal Das, Convener

Prof. Binita Desai, Member

Prof. V Sunitha, Member

Prof. Mukesh Tewari, Member

Prof. Laxminarayan Pillutala, Member

Prof. Saurabh Tiwari, Member

Prof. P. Kalyan Sasidhar, Member

Prof. Arnab Roy, Member

# **Laboratory Committee**

Prof. Suman K Mitra, Dean (Academic Programs),

Convener (ex-officio)

PG Convenor, Member (ex-officio)

UG Convenor, Member (ex-officio)

Prof Yash Agrawal, Member

Lab Superintendent (ex-officio Invitee)

#### **Research Promotion Committee**

Prof. Manjunath V. Joshi, Convener

Prof. Vishvajit Pandya, Member

Prof. Deepak Ghodgaonkar, Member

Prof. Hemant A Patil, Member

Prof. Biswajit Mishra, Member

Prof. Bhaskar Chaudhury, Member

#### **ICT Committee**

Prof. Laxminarayana Pillutla, Convenor

Prof. Bhaskar Chaudhury, Convenor (Feb. onwards)

Prof. Yash Vasavada, Member

Prof. Rajendra Mitharwal, Member

Shri Soman Nair, Executive Registrar, Member

(ex-officio)

Shri Nimesh Patel, Manager (IT & Systems), Member

#### **Placement Committee**

Prof. Asim Banerjee, Convener

Prof. P M Jat, Member

Prof. Jaideep Mulherkar, Member

Prof. Manish Khare, Member

Prof. Yash Agrawal, Member

Ms. Sneha Thakker, Manager, Placement, Member

(ex-officio)

### **Resource Centre Committee**

Prof. Prasenjit Majumdar, Convenor

Prof. Gautam Dutta, Member

Prof. Bharani Kollipara, Member

Prof. Shweta Garg, Member

Shri Soman Nair, Executive Registrar, Member

(ex-officio)

Shri Manish Mankad, Librarian, Member (ex-officio)



#### **Web Committee**

Prof. Minal Bhise, Convenor

Prof. Puneet Bhateja, Member

Prof. Bharani Kollipara, Member

Prof. Saurabh Tiwari, Member

#### **CEP Committee**

Prof. Amit Bhatt, Convenor

Prof. Binita Desai, Member

Prof. Manish Gupta. Member

Prof. Biswajit Mishra, Member

Prof. Rajib Lochan Das, Member

Prof. Manoj Raut, Member

Shri Parth Vayeda, CEP Officer, Member (ex-officio)

# **Annual Report Committee**

Shri Soman Nair, Executive Registrar, Convener

Prof. Suman K Mitra, Dean (Academic Programs),

Member (ex-officio)

Prof. Sanjeev Gupta, Dean (R&D), Member

(ex-officio)

Prof. Ranendu Ghosh, Dean (Students), Member

(ex-officio)

Prof. Asim Banerjee, Convenor, Placement

Committee, Member (ex-officio)

Shri Manish Mankad, Librarian, Member (ex-officio)

Prof. Anish Mathuria, Member

Prof. Shweta Garg, Member

# **Disciplinary Action Committee**

Prof. Ranendu Ghosh, Dean (Students), Convener (Chair)

Warden, HOR-Men, Member (ex-officio)

Warden, HOR-Women, Member (ex-officio)

Shri Jigar P Yagnik, Dy. Registrar, Member

(ex-officio)

Student Representatives – two nominated students

#### **Gender Cell**

Prof. Binita Desai, Convener

Warden, HOR-Women, Member (ex-officio)

Prof. Suman K Mitra, Dean (Academic Programs),

Member (ex-officio)

Ms. Geeta Mehta, Member

Prof. Usha Neelakatan (LDCE) – External Member

Student Representatives – two nominated students

#### **Student Activities Council**

Prof. Ranendu Ghosh, Dean (Students), Member

(Chair)

Prof. Mukesh Tiwari, Convener (Sports Committee)

Prof. Rajendra Mitharwal, Co-convener

(Sports Committee)

Prof. Arnab Roy, Convener (Cultural Committee)

Prof. Jaideep Mulherkar, Convener

(Synapse Committee)

#### **International Student Cell**

Prof. Yash Vasavada, Convener

Prof. Suman K Mitra, Dean (Academic Programs),

Member (ex-officio)

Shri Soman Nair, Executive Registrar, Member

(ex-officio)

Prof. Anil K. Roy, Convenor (UGC), Member

(ex-officio)

# **Strategic Vision Committee**

Prof. Anish Mathuria, Convenor

Prof. Suman Mitra, Member

Prof. Deepak Ghodgaonkar, Member

Prof. Madhumita Mazumdar, Member

Prof. Mukesh Tiwari, Member

Prof. Yash Vasavada, Member

Prof. Bharani Kollipara, Member

Prof. Sourish Dasgupta, Member

# **BTP Coordinator**

Prof. Rahul Muthu

# **Rural Internship Committee**

Prof. Alka Parikh, Convenor

Prof. Aditya Tatu, Member

Prof. P. Kalyan Sasidhar, Member

# **Summer Internship Coordinator**

Prof. Hemant Patil

# Annexure 2

# THESES, PROJECTS AND REPORTS

#### **PhD Theses**

- Sailor, Hardik B., Auditory Representation Learning; xxv, 218 p.; 2018. (Supervisor: Hemant A. Patil)
- Desai, Nikita, Between Insularity and Cosmopolitanism: a Study on the relation between Urban Space and Urban Identity in Modern Baroda; xii, 319 p.; 2018. (Supervisor: Vishvajit Pandya and Madhumita Mazumdar)
- Chaudhari, Payal, Design and Analysis of Schemes for Privacy Preserving Cloud Storage Services; xiv, 170 p.; 2018. (Supervisor: Manik Lal Das)
- 4. Mehta, Parth, From Extractive to Abstractive Summarization: A Journey; x, 112 p.; 2018. (Supervisor: Prasenjit Majumder)
- Ravindran, Vandana, Graph Theoretic Investigations of Control in Biological Networks;
   xi, 94 p.; 2017. (Supervisor: V. Sunitha)
- Jadeja, Mahipal Prithvisinh, Set Labelling Vertices and Study of Auxiliary Graphs.; xv, 164 p.; 2017. (Supervisor: Rahul Muthu)
- 7. Vangala, Ram Naresh Kumar, Developing a framework of agriculture knowledge management process in Indian context; xi, 127 p.; 2017. (Supervisor: Asim Banerjee)

#### **MTech Theses**

- Agrawal, Vishakha, Designing Distributed Systems w.r.t Conformance; v, 27 p.; 2018. (Supervisor: Puneet Bhateja)
- Anjana, Rita, Cluster recommendation of scientific literature for research area analytics; vii, 38 p.; 2018. (Supervisor: P. M. Jat and Sourish Dasgupta)
- Chandra, Shubham, Public Toilet Hygiene Management System; vii, 41 p.; 2018. (Supervisor: Sanjay Srivastava and Anil K. Roy)
- 4. Chauhan, Rahul, A Novel Circular Fractal Antenna Array; vii, 41 p.; 2018. (Supervisor: Sanjeev Gupta)

- Deore, Prajak Balwant, Data Blocking for Partitioned Data; x, 54 p.; 2018. (Supervisor: Minal Bhise)
- Dhami, Aarushi, Design and Analysis of Ultra Wideband Low Noise Amplifier; ix, 49 p.; 2018. (Supervisor: Sanjeev Gupta)
- 7. Dhokai, Ronak, A Personalized Gait Abnormality Detection System; v, 28 p.; 2018. (Supervisor: Kalyan Sasidhar)
- 8. Doshi, Prarthana, Distant Supervision for Relation Extraction; vii, 26 p.; 2018. (Supervisor: P. M. Jatt)
- Dubey, Deepankar, FPGA Implementation of an ImprovedProportionate Normalized Least MeanSquare (IPNLMS) Algorithm; vii, 41 p.; 2018. (Supervisor: Rajib Lochan Das and Biswajit Mishra)
- Gandhi, Samkit Rakeshbhai, Design Consideration for a Novel BatchingControl Unit on an FPGA; viii, 61 p.; 2018. (Supervisor: Biswajit Mishra)
- Gohel, Prashant, Crime Information Extraction from News Articles; viii, 26 p.; 2018. (Supervisor: P. M. Jat)
- 12. Goswami, Jankhana J, Legal Informatics; vii, 36 p.; 2018. (Supervisor: Prasenjit Majumder)
- 13. Gupta, Shubhangi, Design and Implementaion of Low Power Superscalar Processor; viii, 41 p.; 2018. (Supervisor: Amit Bhatt)
- Jigalur, Lokesh, An Integrated Capacitance to Digital and Resistance to Digital Converter; ix, 40 p.; 2018. (Supervisor: Biswajit Mishra)
- 15. Khalpada, Vaidehi S, Document Representation using Extended Locality Preserving Indexing; vii, 36 p.; 2018. (Supervisor: Suman K. Mitra)
- Koshti, Nishant, Image Segmentation Fusion by Edge Detection Techniques; ii, 30 p.; 2018. (Supervisor: Asim Banerjee)
- 17. Kotawala, Fatema, Design and Implementation of Low Power Superscalar Processors; viii, 61 p.; 2018. (Supervisor: Aditya Tatu)



- Kotecha, Dhara, Learning Cross Domain Relations Using Deep Learning; viii, 49 p.; 2018. (Supervisor: Manjunath V. Joshi)
- Kriti, Design and Implementation of low power superscalar processor; vii, 31 p.; 2018. (Supervisor: Amit Bhatt)
- 20. Kumar, Lokesh, Set Labeling of Graphs; vii, 34 p.; 2018. (Supervisor: Rahul Muthu)
- Lodha, Nikita, SmartWearable Device using Embedded Systems; viii, 48 p.; 2018.
   (Supervisor: Biswajit Mishra)
- 22. Lodha, Pratik, The Study of Vertex Coloring Algorithms Using Heuristic Approaches; v, 30 p.; 2018. (Supervisor: Rahul Muthu)
- 23. M., Chothani Chintanika, Fully Digital, Low Energy Capacitive Sensor Interface with an Auto-Calibration Unit; viii, 39 p.; 2018. (Supervisor: Biswajit Mishra)
- 24. N, Sushantini, Framework for Adaptive Video StreamingIn Satellite Networks; ix, 71 p.; 2018. (Supervisor: Yash Vasavada)
- 25. Ogale, Suraj, Modelling and short term forecasting of flash floods in an urban environment; vii, 38 p.; 2018. (Supervisor: Sanjay Srivastava)
- 26. Panara, Bhavika, Thinning of Handwritten Gujarati numerals; viii, 38 p.; 2018. (Supervisor: Suman K. Mitra and Asim Banerjee)
- 27. Panchal, Namrata, Design of Shorted Microstrip Patch Antenna Array; viii, 51 p.; 2018. (Supervisor: Sanjeev Gupta)
- 28. Parekh, Krishna A, Handwritten Numeral Recognition using Polar Histogram of Low-Level Stroke Features; vi, 36 p.; 2018. (Supervisor: Suman K. Mitra)
- 29. Patel, Jinita, Security of Remote Car Locking System against Eavesdropping; ix, 42 p.; 2018. (Supervisor: Manik Lal Das)
- 30. Patel, Nikita, Performance Analysis of Next Generation Graphene Interconnects; xiii, 60 p.; 2018. (Supervisor: Yash Agrawal)
- 31. Patwa, Dolly R., Privacy Preserving Identity Verification with Binding Blinding Technique in

- Cloud Assisted Healthcare Applications; vii, 40 p.; 2018. (Supervisor: Manik Lal Das)
- 32. Purabia, Pooja R., Biomedical Information Retrieval; vii, 32 p.; 2018. (Supervisor: Prasenjit Majumder)
- 33. R., Sreeraj, Unsupervised Speaker-Invariant Feature Representations for QbE-STD; xiv, 78 p.; 2018. (Supervisor: Hemant A. Patil)
- 34. Rani, Neha, Wind Energy Forecasting using Recurrent Neural Networks; vii, 32 p.; 2018. (Supervisor: Manjunath V. Joshi)
- 35. Rathore, Rahul, Rule Based Approach for Aspect Extraction from Product Reviews; vii, 26 p.; 2018. (Supervisor: P. M. Jat)
- Ravali, K.V.N.N., Design and Implementation of a Low Power Superscalar Processor; ix, 41 p.;
   2018. (Supervisor: Amit Bhatt)
- 37. Rout, Debadutta, Measurement of Complex Permittivity of Materials Using Rectangular Dielectricwaveguide(Rdwg) Technique In 5.85-8.20GHz Range; vii, 46 p.; 2018. (Supervisor: Deepak Ghodgaonkar)
- 38. Sagathiya, Ridhamkumar, Synthesis of Distributed Systems w.r.t. Isomorphism; iii, 25 p.; 2018. (Supervisor: Puneet Bhateja)
- 39. Shah, Chintan, Implementation of Digital Multipliers Based on Single Electron Transistor; viii, 29 p.; 2018. (Supervisor: Rutu Parekh)
- Shah, Jeni Snehal, Imbalanced Bioassay Data Classification for Drug Discovery; ix, 47 p.; 2018. (Supervisor: Manjunath V. Shrivastava, Udit, Multi-class Diagnosis of Diabetic Retinopathy using Deep Learning; ix, 59 p.; 2018. (Supervisor: Manjunath V. Joshi)
- 41. Solani, Riddhi, On Insider Attack in Distributed File Systems; vii, 37 p.; 2018. (Supervisor: Manik Lal Das)
- 42. Srinivas, K., Phase-based Features for Replay Spoof Detection System; xii, 64 p.; 2018. (Supervisor: Hemant A. Patil)
- 43. Tak, Hemlata, Design of Countermeasures for Replay Spoof Speech Attack; xvi, 70 p.; 2018. (Supervisor: Hemant A. Patil)

- 44. Tapkir, Prasad Anil, Replay Spoof Detection using Handcrafted Features; xiii, 68 p.; 2018. (Supervisor: Hemant A. Patil)
- 45. Thakkar, Sanket Navinkumar, All-Digital Low Power Front-end SingleLead ECG Acquisition; x, 54 p.; 2018. (Supervisor: Biswajit Mishra)
- 46. Thakker, Avani, The Study of Cycles in 2-connected Graphs Specifically Odd Graphs; vi, 22 p.; 2018. (Supervisor: Rahul Muthu)
- 47. Thakur, Palak, Job Recommendation System; vii, 28 p.; 2018. (Supervisor: Prasenjit Majumder)
- 48. Thanki, Jigar, Design & Implementation of Low Power Superscalar Processor; ix, 45 p.; 2018. (Supervisor: Amit Bhatt)
- 49. Trivedi, Vishwas, Designing An Optimized Linear Adaptive Filtering Algorithm; vii, 29 p.; 2018. (Supervisor: Rajib Lochan Das)
- 50. Usdadiya, Chiragbhai Parabat, Assessing Quality of Use Case Specifications; viii, 51 p.; 2018. (Supervisor: Saurabh Tiwari and Asim Baneriee)
- 51. Vishwakarma, Nikita, Testing Synchronously Communicating Distributed Systems; ii, 27 p.; 2018. (Supervisor: Puneet Bhateja)
- 52. Yadav, Satyanjali, Image Denoising; viii, 39 p.; 2018. (Supervisor: Asim Banerjee)

# **MDes Project Reports**

1. Agrawal, Anandita, Bohra Tradition of Sharing Food; 26 p.; 2018. (Supervisor: Vishvajit Pandya and Madhumita Mazumdar)

- Gulati, Shaina, Mamta Kavach: Prevention and Identification of Disabilities in Early Stages of Childhood; 54 p.; 2018. (Supervisor: Vishvajit Pandya and Lokesh Khetan)
- 3. Jain, Neerja, Bison Horn Maria- Mrittu aur Sharan; 30 p.; 2018. (Supervisor: Binita Desai and Jaymin Modi)
- 4. K., Sarath, ANGADITHERUV E-Agri Marketing portal; 75 p.; 2018. (Supervisor: Madhumita Mazumdar and Lokesh Kehtan)
- Laishram, Yaiphahenba, Ema Keithel Commodities & Communities; 36 p.; 2018. (Supervisor: Vishvajit Pandya and Madhumita Mazumdar)
- Sharma, Ayushi and Pule, Prakruthi G., Particularly Vulnerable Tribal Groups of India Understanding the problem of vulnerability; 2018. (Supervisor: Vishvajit Pandy and Madhumita Mazumdar)
- Sheth, Aarsh and Singh, Saurabh, In Search of Buddhist Gujarat Between rhetoric and reality;
   p.; 2018. (Supervisor: Madhumita Mazumdar and Vishvajit Pandya)
- 8. Tharian, Roshni, Aasharyathaputhanvidu Migration in Identities; 86 p.; 2018. (Supervisor: Binita Desai and Jaymin Modi)
- Vardhan, Himanshu and Shah, Shailaja, Chalo bajaar jaiye: Ahmedabad through markets; 83 p.; 2018. (Supervisor: Vishvajit Pandya, Madhumita Mazumdar and Nikita Desai)





# Annexure 3

# FACULTY WITH AREAS OF INTEREST

# **Regular Faculty**

| Name of the Faculty  | Areas of Interest   |
|--|---|
| Dasgupta, K S (Director) PhD (Engineering) IIT Bombay                                      | Digital Signal and Image Processing, Digital Communication, Computer Networking and SatelliteCommunication.   |
| Agrawal, Sarita PhD (Wireless Sensor Network) DA-IICT, Gandhinagar                         | Wireless Sensor Network Security  |
| Agrawal, Yash PhD (Electronics & Communication Engineering) NIT Hamirpur, Himachal Pradesh | Design, modeling and simulation of high-performance VLSI interconnects, Nanotechnology  |
| Banerjee, Asim PhD (Electrical Engineering) IIT Bombay                                     | Pattern Recognition, Medical Imaging, Image<br>Processing, Digital Signal Processing, Speech<br>Coding, Software Engineering, Software Quality<br>Assurance and Project Management                                |
| Bhateja, Puneet PhD (Computer Science) Chennai Mathematical Institute, Tamil Nadu          | Formal Methods used for Testing and Verification  |
| Bhatt, Amit PhD (Electrical Engineering) North Carolina State University, USA              | Multicore Computer Architecture<br>and Parallel Programming, Low Power Methodology<br>in Digital design   |
| Bhise, Minal PhD (Computer Science) BITS Pilani  | Semantic Web, Distributed Databases, Software System Analysis and Design  |
| Chaudhury, Bhaskar<br>PhD (Physics)<br>Institute for Plasma Research, Ahmedabad            | Computational Science, High-Performance<br>Computing, Computational Physics, Modeling<br>and Simulation of Plasmas, Computational<br>Electromagnetics, Parallel Programming, GPU<br>Computing, Plasma electronics |
| Das, ManikLal PhD (Information Technology) IIT Bombay                                      | Information Security, Cryptography, System Design and Analysis  |
| Das, RajibLochan PhD (Adaptive Signal Processing) IIT Kharagpur                            | Adaptive Signal Processing, Compressive Sensing, Image Processing   |
| Dasgupta, Sourish PhD (Computer Science) University of Missouri-Kansas City, USA           | Distributed Multi-Agent System, Service Oriented Architecture, Semantic Web, artificial intelligence  |
| Desai, Binita PG Diploma (Animation) National Institute of Design, Ahmedabad               | Animation, Communication Design and Multimedia  |
| Dutta, Gautam PhD (Physics) Physical Research Laboratory, Ahmedabad                        | Quantum Computers, Signal Processing, Image Processing, Particle Physics  |
| Garg, Gagan PhD (Computer Science and Automation) Indian Institute of Science, Bangalore   | Information Theory, Cryptography, Number Theory   |

| Garg, Shweta  | Food and Cultural Studies, Performance Studies,   |
|---|---|
| PhD (English)<br>IIT Roorkee  | Creative Writing, Literature of the Indian Diaspora   |
| Ghodgaonkar, Deepak PhD (Electrical Engineering) University of Utah, USA  | RF and Microwave Engineering, Microwave Sensors, Microwave Instrumentation, Microwave characterization of composite materials, Biomedical applications of microwaves, Electromagnetic imaging of complex dielectric bodies and Wireless data communications |
| <b>Ghosh, Ranendu</b> PhD (Soil science & Agricultural Chemistry) Indian Agricultural Research Institute, New Delhi   | Satellite Remote sensing & GIS, satellite communication applications for rural development, sustainable agriculture system  |
| Gohel, Bakul PhD (Bio and Brain Engineering) Korea Advanced Institute of Science and Technology, Daejeon, South Korea | Bio and Brain Engineering, Information Technology, Medicine   |
| Gupta, Manish K<br>PhD (Mathematics)<br>IIT Kanpur  | Information processing in Biology, Bio-molecular (DNA, Membrane, Cell) computing, Coding and Information theory, Cryptology, Quantum computing, Computational, Structural and Systems Biology and Bioinformatics  |
| <b>Gupta, Sanjeev</b> PhD (Communication Engineering) Queen's University of Belfast, UK                               | Smart Antennas, Communication and Radar Systems, RF/Microwave Applications  |
| Jat, Pokhar Mal PhD (Computer Science and Engineering) ML Sukhadia University, Udaipur                                | Databases, Data Mining, Web of Data, Software Design  |
| Joshi, Manjunath V PhD (Electrical Engineering) IIT Bombay  | Computer Vision, Image processing, Super-<br>Resolution, Restoration, Signal Processing, Digital<br>Communication   |
| Jotwani, Naresh PhD (Computer Science) Rice University, Houston, Texas, USA   | Solar Energy, Engineering Design, Economics   |
| Khare, Manish PhD (Computer Science) University of Allahabad, Allahabad   | Image Processing, Computer Vision, Infrared Imaging, Applications of Wavelet transforms.  |
| Kollipara, Bharani PhD (English Literature) English and Foreign Languages University, Hyderabad                       | Literature and Philosophy, Ancient Greek Philosophy, Political Theory, Aesthetics   |
| Koley, Santanu<br>PhD (Mathematics)<br>IIT Kharagpur  | Integral Equations Computational Techniques<br>Hydrodynamics<br>Statistical Modeling Renewable Energy   |
| Mankodi, Amit<br>MS (Computer Science)<br>California State University, USA  | Embedded Systems, Computer Networks, High-<br>Performance Computing   |
| Majumder, Prasenjit PhD (Computer Science) Jadavpur University, Kolkata   | Information Retrieval, Natural Language processing,<br>Digital Libraries  |



| Mathuria, Anish PhD (Computer Science) University of Wollongong, Australia                  | Computer Security   |
|---|---|
| Mazumdar, Madhumita PhD (Modern History) University of Calcutta, Calcutta                   | Social History of Science, Technology and Medicine in India, Cultures of Communication and The Media  |
| Mishra, Biswajit PhD (Electrical & Electronics Engineering) University of Southampton, UK   | Ultra-Low Power and Sub-threshold Circuit Methodologies, Very Low Voltage Circuits for Wireless Sensor Networks, Digital IC Design, Power Management for Energy Harvesters, Signal Processing Hardware for Color Image Processing, Geometric Algebra and Novel Hardware |
| Mitharwal, Rajendra PhD (Engineering Science) Telecom Bretagne, Brest, France               | Computational Electromagnetics  |
| Mitra, Suman Kumar<br>PhD (Computer Science)<br>ISI Kolkata                                 | Image Processing, Pattern Recognition, Fractal,<br>Bayesian Network and Digital Image Watermarking  |
| Modi, Amishal Master of Arts The Ohio State University, USA                                 | English language Teaching Victorian Literature Indian Poetry in English   |
| Mulherkar, Jaideep PhD (Mathematics) University of California Davis, USA                    | Mathematical Physics, Quantum Computation and Information   |
| Muthu, Rahul<br>PhD (Computer Science)<br>Homi Bhabha National Institute, Mumbai            | Graph Theory and Algorithms   |
| Narwaria, Manish PhD (Computer Science) Nayang Technical University, Singapore              | Image, Video and Speech Processing, Multimedia<br>Communication, Psychophsics, Machine Learning   |
| Pandya, Vishvajit PhD (Anthropology) University of Chicago, USA                             | Material Culture, Design and Communication Culture, Visual Anthropology, Rituals and History with specific reference to Colonialism   |
| Pankaj Kumar PhD (Electrical and Computer Engineering) National University of Singapore     | Machine Learning, Artificial Intelligence, Neural network, Computer Vision, Image Processing, Digital Signal Processing, Signals and Systems, Engineering Mathematics   |
| Parikh, Alka PhD (Agriculture and Allied Economic) Cornell University, USA                  | Rural development and the related issues like Agriculture, Poverty, Unemployment and Wages, Rural Finance, Environment and Development, Disaster Management   |
| Parekh, Rutu PhD (Electrical Engineering) Sherbrooke University, Sherbrooke, Canada         | Nanoelectronics, Nano Device-CMOS Hybridization, Design and Simulation, Circuit Design, Modeling and Simulation of Next-Generation Memory (PCM), Nanofabrication  |
| Patil, Hemant PhD (Signal Processing) IIT Kharagpur   | Speaker Recognition and Wavelet Signal Processing   |
| Pillutla, Laxminarayana PhD (Electrical Engineering) University of British Columbia, Canada | Statistical Signal Processing, Information Theory,<br>Game Theory, Non-Linear Optimization, Wireless<br>Sensor Networks, Cognitive Radio, Cross Layer<br>Design of Wireless Networks  |

| Raut, Manoj Kumar<br>PhD (Mathematics)<br>IIT Madras   | Logic in Computer Science  |
|--|--|
| Ray, Arnab Kumar PhD (Physics) Jadavpur University, Kolkata  | Astrophysics and Nonlinear Systems   |
| Roy, Anil<br>PhD (Physics)<br>IIT Delhi  | Fibre Optics and Optical Communication, Quantum Optics, Nanotechnology, Semiconductor Devices, ICT Applications in Rural Development   |
| Sahu, Nabin Kumar PhD (Mathematics) IIT Kharagpur  | Applied Functional Analysis, Operator Theory,<br>Variational Inequality, Variational Inclusion Problems  |
| Sasidhar, P S Kalyan PhD (Computer Science and Engineering) University of North Texas-Denton, Texas, USA | Mobile and Pervasive Computing   |
| Singh, Lavneet<br>M.S. (Software Systems)<br>BITS Pilani   | Cloud Computing, IoT, Software Architecture, Design and Engineering, Enterprise Software Systems.  |
| Srivastava, Sanjay PhD (Physics) University of California, Los Angeles, USA                              | Computer Networks: Protocol Modelling, Simulation  |
| Sunitha, V PhD (Mathematics) IIT Madras  | Algorithms, Discrete Mathematics, Graph Theory, Parallel & Distributed Computing, Theoretical Computer Science, Interconnection Networks   |
| Tatu, Aditya PhD (Image Analysis) University of Copenhagen, Denmark                                      | Applications of Differential Geometry (Shapes, Curve Evolutions, etc.) Image features, Continuous optimization.  |
| Tiwari, Mukesh PhD (Optical Science & Engineering) University of New Mexico, USA                         | Statistical Physics, Non-Linear Dynamics, Quantum Transport, Surface Science   |
| <b>Tiwari, Saurabh</b> PhD (Software Engineering) IIITDM Jabalpur  | Requirement Engineering, Empirical Software<br>Engineering, Evidence-based Software Engineering,<br>Safety Analysis, Model-based Testing   |
| Vasavada, Yash PhD (Wireless Communications) Virginia Polytechnic Institute and State University, USA    | Wireless Communications, Satellite Communications, Signal Processing, Detection and Estimation Theory, Information Theory and Coding Theory, Machine Learning and AI, Cognitive Communications, LTE and 4G/5G, MIMO Channels |



# Adjunct/Visiting Faculty

| Name of the Faculty  | Areas of Interest   |
|--|---|
| Banerjee, Nandini<br>PhD<br>R D University, Jabalpur                                       | Economics & General Management  |
| Banerjee, Soumitra PhD (International Business Strategy) University of Belford, Texas, USA | Start-up Ventures, Product Development, Business Strategy, Productivity and Communication |
| Dasgupta, Kuntala B.Sc. Calcutta University  | Rabindra Sangeet, North Indian, Classical, India Film Music and History.                  |
| Dalwadi, P M Post Graduate in Visual Communication National Institute of Design, Ahmedabad | Photography   |
| <b>Desai, Nikita</b> PhD (Design) DA-IICT, Gandhinagar                                     | Information Design, Interaction Design, Web Design  |
| Khetan, Lokesh<br>MDes<br>DA-IICT, Gandhinagar   | Multimedia Design, Web Design, Graphic Design and Photography                             |
| Nagchoudhuri, Dipankar PhD (Electrical Engineering) Michigan State University, USA         | VLSI Design, CMOS Circuits and Technology,<br>Biomedical Signal Processing Chip Design    |
| Sisodia, Diksha PhD (Management) University of Connecticut, USA                            | Operations Management, Quantative Techniques, usiness Research Methodology                |



# Annexure 4

#### **OFFICERS AND STAFF**

#### Registrar

Soman Nair, Executive Registrar

# **Academic Programs**

Jigar P Yagnik, Deputy Registrar (Academic)
Jalpesh Pandya, Assistant Registrar (Academic)
Dinesh Prajapati, Senior Programmer
Jainik Patel, Academic Assistant

#### **Administration & HR**

Hasendrasinh Jhala, Head-HR & Admin.
Rajesh V Patel, Estate Engineer
Sudhir Dave, Commercial Officer
Bhavesh Shah, Senior Stores Assistant
Kiritkumar Pandya, Assistant Administrative Officer
Gyanesh Pandya, Senior HR Assistant
Niketa P Raval, Receptionist-Cum-Office Assistant
Keshurbhai M Zala, General Assistant
Bahadursinh M Veghela, Driver

#### **Accounts**

Geeta Mehta, Chief Accounts Officer Santosh Pandit, Assistant Accounts Officer

# Director/Dean/Registrar/Faculty Offices

Venugopal PR, Executive Secretary to Director Abhilash Bhaskaran, Senior Secretary to Registrar Satyabir Singh, Senior Secretary to Dean (AP) & Dean (R&D)

Mukesh Thaker, Secretary, Faculty Block 1 Deepa Poduval, Secretary Faculty Block 2 Geeta S Nair, Secretary Faculty Block 4

#### Placement & Continuing Education Program (CEP)

Sneha Thakker, Manager-Placement Anuradha Srivastava, Secretary

# **Resources Centre (Library)**

Manish Mankad, Librarian Prasanna Kumar Muduli, Assistant Librarian Shashikumara A A, Assistant Librarian Trupti Barot, Library Trainee
Julfikar Ahmed, Library Trainee
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