



# 2016 ANNUAL REPORT 2017

August 2016 – July 2017



**Dhirubhai Ambani  
Institute of Information and Communication Technology**

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Tel.: +91 79 3052 0000 | Fax: +91 79 3052 0010 | Web: [www.daiict.ac.in](http://www.daiict.ac.in)

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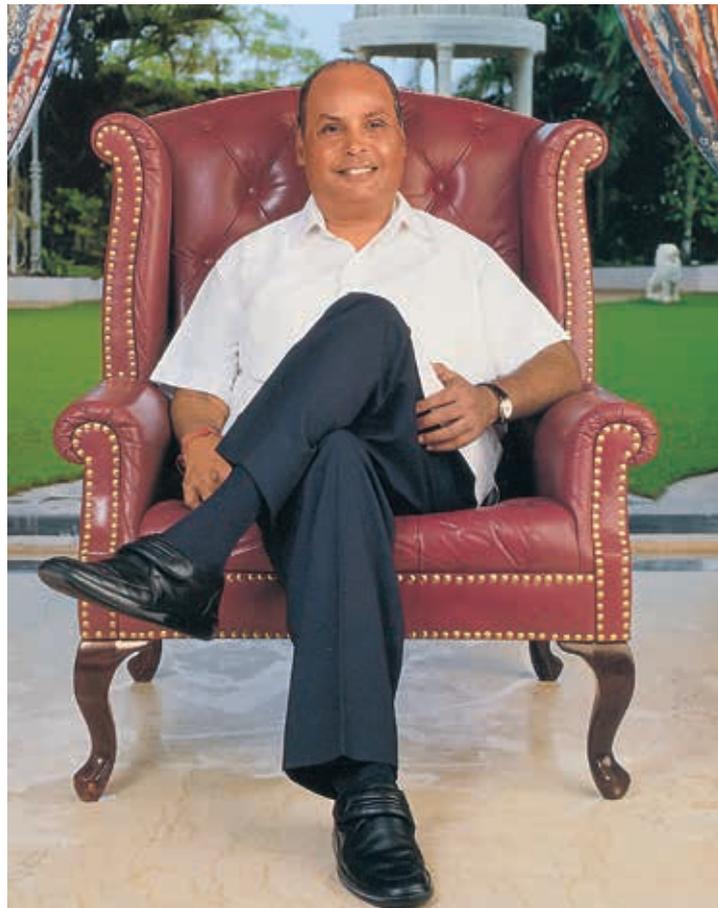
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**Shri. Dhirubhai Hirachand Ambani**

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

Founder Chairman, Reliance Group  
Founder Chairman, DA-IICT





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## Board of Governors



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Prof. Suman K Mitra	Dean (Academic Programs), DA-IICT, Gandhinagar
Prof. Sanjeev Gupta	Dean (Research & Development), DA-IICT, Gandhinagar

### **Secretary**

Shri Soman Nair Executive Registrar, DA-IICT, Gandhinagar



## Director's Page



This Annual Report, covering the academic year 2016-17, marked the first year of implementation of the restructured curriculums of B. Tech (ICT) and (CS) Programs.

The achievements narrated in the report on research and publications are owing to the active engagement of faculty and students in research, particularly, the research projects sponsored by national apex scientific bodies and government departments. The report highlights achievements of the students across a wide range of national and international competitions. The activities of Institute's Entrepreneurship and Incubation Centre in promoting entrepreneurship culture among the students are also reflected in the report.

The accomplishments of the Institute contained in the following pages are due to the guidance of the Board of Governors, dedication of faculty, staff and students, distinguished alumni and ardent support received from Reliance ADA Group, Government of Gujarat and Government of India.

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.' 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 is established as a Society under the Societies Registration Act, 1850 and the 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 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 minor, was designed and launched in 2013. The other programs offered are M.Tech (Information and Communication Technology), M.Sc (Information Technology), M.Des (Communication Design) and a Doctoral Program in Technology and Humanities. DA-IICT has graduated over 4500 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 50 regular faculty members with strong research credentials. They have authored quality books, published research papers in international journals and attracted a number of research projects with funding from the Central and State Governments. The Institute houses a Government of India funded Incubation Center to nurture and develop business ideas based on new technology. Government of Gujarat came forward to support and fund start-ups selected by the Incubation Center. The Institute also has research funding from industry for Doctoral Scholars.





The Institute has signed Memorandums of Understanding with national and international institutions to promote and enhance academic and research interaction as well as 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 Government of Gujarat, Indian Navy, to admit naval officers for M Tech and other advanced courses including PhD, joint research and development and training, Space Application Centre, Indian Space Research Organization, to admit eligible Officers for PhD Program and collaborate in research and training, 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 — 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 form of workshops, seminars and hands-on training. The Institute provides end-to-end services in training and development for knowledge transfer and skill enhancement.

DA-IICT is spread over 50 acres of land in Gandhinagar, the Capital City of Gujarat. The campus is carefully 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 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) who will be committed to a vision of excellence both as professionals and as citizens. The academic programs are designed to develop students' comprehension of technology within the broader vision of science and by providing them 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 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, research dissemination seminars and workshops to industry professionals, government officials, academics and research scholars.

The details of the academic programs offered are given in **Table 1**.

**Table 1: Academic Programs**

Sr. No.	Programs	Commencement	Duration (Years)	Annual Intake*
1	BTech (ICT)	2001	4	270
2	BTech (Honours) in ICT with minor in Computational Science	2013	4	70
3	MTech (ICT)	2002	2	80
4	MSc (Information Technology)	2002	2	120
5	MDes (Communication Design)	2004	2	20
7	PhD	2002	3-5	10-20

\*Inclusive of NRI/Foreign students.

### ADMISSIONS FOR 2017-18 BATCHES

The admissions to 50% seats of the B. Tech Programs are carried out by the Admission Committee for Professional Courses (ACPC), Government of Gujarat. The other 50% and the admissions of Non-Resident Indians, Foreign Nationals and Persons of Indian Origin are managed by the Institute directly.

The process of admissions for 2017-18 batches of the programs began in March, 2017 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 network. The admissions and counseling were carried out by using an online system.

### Undergraduate Programs

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

The numbers of seats for BTech programmes were revised from 300 to 360 which included 54 seats for Non-Resident Indians, Foreign Nationals and Persons of Indian Origin. Out of 360 seats, 180 seats were filled in by the Admissions Committee for Professional Courses, Government of Gujarat,



following their eligibility criteria, procedures and rules on admissions. The admissions to the other seats were filled in by the Institute based on the all India rank in Joint Entrance Examination Main 2017 (JEE Main 2017), conducted by the Central Board of Secondary Education. The admissions to Non-Resident Indians, Foreign Nationals and Persons of

Indian Origin were carried out on the basis of the Scholastic Aptitude Test (SAT)/JEE Main score. The Institute follows the guidelines for admission of reserved category students. The starting and closing JEE merit ranks of the students admitted under each category 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)	1785	2226
	Gujarat (Gen)	NA	NA
Lowest JEE Main Rank	All India (Gen)	12261	7264
	Gujarat (Gen)	NA	NA

### Postgraduate Programs

**MTech (ICT):** The curriculum of M. Tech (ICT) Program was reviewed by a Committee chaired by Prof. Manik Lal Das with faculty and external experts as members representing research institutions and industry. The program with six specializations offered in thesis mode until the academic year 2015-16 was with an objective to prepare the graduates for a career in research and academics but, majority of the graduates sought employment in industry. Thus the review of curriculum became necessary due to the aspirations of graduates, changing technologies and industry needs. Based on the inputs and suggestions provided by stakeholders and holding a series of deliberations within the Institute, the program was restructured offering both project and thesis modes. The revised curriculum does not have explicit specialization. The revised structure is that the first semester courses provide basic foundation in ICT and are common to all the students. This is expected to bring them on par with one another and prepare them to choose courses/research in the subsequent semesters. From the second semester onwards, students are given choice-based core and elective courses in interdisciplinary domains and then project/thesis by which a student can show breadth in domain

knowledge in ICT and robust skills in preferred areas/specializations. The revised curriculum incorporates laboratory components in some courses with latest technologies and tools, which will strengthen students' skills with practical knowledge. The structure has compulsory foundation courses in the beginning followed by group core termed as 'domain knowledge in ICT' and electives in ICT and finally either a Thesis or an Industry Project spread over in the third and fourth semesters. The restructured curriculum has 60 credits compared to 48 credits of the erstwhile program.

The admission to the program was based on valid Graduate Aptitude Test in Engineering (GATE) score. The implementation of the restructured program began with 2017 admissions and 65 candidates joined the program.

**MSc (IT):** A five member Committee with Prof. Minal Bhise as Convener with an external member appraised the MSc (IT) Program with an objective to identify the knowledge areas required for the curriculum, map courses objectives with program objectives and align sequences of courses with industry needs. Based on the feedback received from students, faculty and industry, Programming, Data Structures, Algorithm and

Communication Skills courses were prioritized and strengthened, and core courses, Operating Systems and Computer Organization were moved to technical electives. The courses, System Programming, 'C' Programming and Web Programming were added as core courses. The core courses, Computer Networks and Software Engineering that are relevant for placement were brought forward from the third to the second semester. The core course 'Enterprise Computing' was redesigned based on industry needs. The elective courses, Cloud Computing, E-Commerce and Big Data Analytics were restructured. The changes were made applicable for students admitted in 2017.

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 2017, 120 students were admitted to the program.

**MDes (Communication):** 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 the Statement of Purpose (SOP) submitted along with the application. Candidates with a valid CEED score were directly called for the interview. Thirty applicants were called for entrance test/interview and 15 candidates were offered admissions and 14 have joined the program.

**PhD:** The admission to the program was through DA-IICT entrance test/CPI obtained in M. Tech Degree awarded by DA-IICT, CSIR/UGC-NET qualification or GATE score. Out of 83 applicants, 21 candidates were called for interview on clearing the admission test. Fourteen candidates were called directly for interview based on their CSIR/UGC-NET qualification/GATE score/DA-IICT CPI. Twenty four candidates were shortlisted for admission and 12 have joined the program.

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

**Table 3: Admissions Details**

Programs	Application Received	Admission Offered
MTech (ICT)	205	65
MSc (IT)	390	120
MDes (CD)	27	15
PhD	105	14

## ORIENTATION

The orientation for the postgraduate students was held during 22-26 July, 2017 and for undergraduates during July 25-29, 2017. The objectives of the orientation programs are to integrate the newly admitted students into DA-IICT community. The sessions conducted covered genesis and mission of the Institute, academic policies and procedures, student activities, and other aspects of campus life. The students were briefed on curriculum contents,

academic requirements, rules and regulations. The senior student volunteers conducted special sessions on campus and hostel life. The students also met instructors of the first semester courses for briefings. One of the sessions was held for parents. The orientation also acquainted the students and parents with the course structure, evaluation system, grading, academic regulations, faculty, staff, campus and infrastructure facilities.



## 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. Thirty BTech (ICT) and (CS) students received the scholarship in autumn semester and, in winter semester, 29 of them received the scholarship.

### 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 2016-17, in autumn semester, 19 and, in winter semester, 18 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/-. Nineteen students have received the scholarship in autumn and winter semesters.

### Assistantships

The Institute offers full-time and half-time teaching assistantships with monthly remuneration to PhD scholars and M. Tech (ICT) students. The BTech (ICT) students are offered half-time teaching assistantships in their final year studies. Thirty eight PhD Scholars, 111 M. Tech and 4 B. Tech students received assistantships during the academic year 2016-17.

### 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 grant 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 Students 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. Nidhi Vyas, B. Tech 2013-17 batch student was conferred the award in 2017.

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

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.4.5 lakh. One hundred sixty two BTech students have received the scholarship during the year 2016-17.

## THESES

### Master's Theses

The thesis work of the M Tech (ICT) students starts from the summer semester after their second semester courses. They work comprehensively to generate interesting research outcome under the guidance of the faculty. Students of M Des (CD) program work full time on projects during their fourth semester at DA-IICT or at 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 Memorandums 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:

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

**Indian Navy:** To admit eligible candidates sponsored by the Navy for M Tech 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 and collaborate in research and training.

**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.

**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 co-operation.

**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 programmes by each other and exchange scientific materials and publications.

**INFLIBNET Centre, Inter-University Centre of the University Grants Commission:** To participate in digitization of theses and dissertations and building-up of digital repository and to promote, share and host DA-IICT's electronic theses and dissertations in 'Shodhganga.'

**Reliance Communications Limited:** To institute the Research Chair, to lead research and education in Computational Science and setting up of a Computational Science Laboratory at DA-IICT.

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



**Ericsson India Private Limited:** To impart training to the B Tech students who have completed their sixth semester of studies at DA-IICT and consider employment of the certified students with Ericsson 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 with a view 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 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 Students:** DA-IICT has a scheme to accept researchers and students from other institutions for research affiliation, internships or project work on recommendation of the faculty. The faculty members work as guides to them.



## Continuing Education Program

The Continuing Education Programs designed and offered by the Institute aim at upgrading the technology skills of participants. Designed, keeping in mind the emerging technology innovations in the field of information technology and related areas and taught by an outstanding group of faculty members with extensive teaching and research experience, the programs prepare participants with the critical capabilities to succeed in an ever-changing technology environment in areas such

as Information and Communication Technology, GIS, VLSI, Embedded Systems, Computer Vision and Image Processing, Wireless Communications, Network Administration and Security, Linux, Database Management and Software Testing. The programs are offered in the forms of summer schools, workshops, seminars and hands-on-training.

The following programs were conducted during 2016-17:

Program	Sponsor/Coordinator	Period	No. of Participants
MS Office in depth	Indian Air Force	1-12 August 2016	15
Summer School on Cyber Physical Systems	Department of Space, Government of India, IIIT Vadodara, Kalasingam University, IEEE and DA-IICT	8-11 April, 2017	56
Summer School on Speaker and Language Recognition	International Speech Communication Association, C-DAC Mumbai, Reliance Communications and DA-IICT	8-12 July, 2017	62





## Placements & Internships

### PLACEMENTS

The Placement Cell under the leadership of a faculty coordinator with student placement committee gets the prospective recruiters on campus. A well-structured curriculum, summer internships, research and industry projects, regular personality and professional development programs on the campus help the students to acquire the skill set expected by the recruiters. The placement season 2016-17 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. The average annual salary package was Rs. 9.17 lakh. The highest salary package touched Rs.40 lakh per annum.

For 2016-17 placements, 55 companies visited the campus. They included Amazon, Deloitte, Directi, HSBC, LinkedIn, Juniper, SAPLab, Samsung, Morgan Stanley, Oracle, TCS, Servify, Rtcomp, Verse, Wipro, Aspire Minds, E-Infochips, Evosys, Future First, Grit Innovations, Networks, Kuliza, MAQ Softwares, and MuSigma. The junior batches of students secured summer internships from companies visited.

Placement 2015-16	BTech	MTech	MScIT	MSc(ICT)ARD	M. Des
Students opting for campus placement	266	57	89	8	8
Students opting out of campus placement	6	5	5	2	2
Total	272	62	94	10	10

Details	BTech	MTech	MScIT	MSc(ICT)ARD	M. Des
Total Jobs offered	232	42	55	8	8

A good number of students got placements in the companies in which they did their summer internships.

### RURAL INTERNSHIPS

Rural Internship (RI) is a three-and-a-half-week activity that the second year BTech students are required to undertake in December during the winter break between their third and fourth semester studies. The RI program conducted in December 2016 was managed by a Committee of three faculty members. The Committee identified different NGOs (Non Governmental Organizations) that are active in rural India to host the students. Students selected NGOs from this curated list in a process lasting over nearly two months. On 7th December 2016, the 2015 batch of students started its mission of understanding, and possibly improving, the lives of rural India. Students worked in the areas of primary education (focusing on Anganwadi and primary schools in different villages), gave lessons in mathematics

and science to the village children, healthcare (conducted surveys of the villagers' health metrics e.g., blood pressure, blood sugar, body mass index, etc.), Swachh Bharat campaign (surveyed the use of toilets in a village near Bharuch), irrigation in farming, livelihood of the disabled and marginalized sections of the society, dairy udyog, financial management (especially for the village women who earn their own livelihood), ICT tutorial training for the villagers (e.g., how to use PayTM, or use websites that provide information about crop planning and scheduling, campaigns against vices and addiction to tobacco, alcohol and against poor practices and cultural traits (apathy toward girls' education and untouchability) in Indian villages. Many students also actively contributed to the day-to-day working of the NGOs by employing the ICT skills they had

acquired during the first three semesters of their study, they built websites and smartphone apps, social media campaigns, and prepared databases for aiding the NGO's operation. After completing the internship, in February 2017, the students presented their findings to the RI Committee by submitting reports and making presentations. The entire batch of students, without exception of a single student, voiced its happiness and satisfaction in participating in the program. A recurrent feedback was that the

RI opened their eyes to an aspect of India that they were mostly unaware of; many mentioned that this program had sensitized them toward the problems faced by the villagers and that they would continue to actively think about how they can contribute in solving the problems of the rural society.

The BTech 2015 batch comprised of 296 students. They were placed in eight States with 43 NGOs listed in **Table 4**.





**Table 4: Organizations Involved in Rural Internship**

Sl. No	Organizations (NGOs)
1	Blind People's Association (BPA), Ahmedabad, Gujarat
2	ESI, Sughad, Gujarat
3	Yuva Ustoppable, Gujarat
4	DISHAA, Gujarat
5	Tribhuvan Das Foundation, Gujarat
6	Pratham, Ankleshwar, Gujarat
7	Sarjan Foundation, Banas Kantha, Gujarat
8	Banas Dairy, Gujarat
9	NARDES, Bharuch, Gujarat
10	PNR Society, Bhavangar, Gujarat
11	NM Sadguru Foundation, Gujarat
12	GVT, Dahod, Gujarat
13	HiFeed, Dehradun, Uttarakhand
14	HESCO, Uttarakhand
15	The Scindia School, Gwalior, Madhya Pradesh
16	Astha Sansthan, Rajasthan
17	Jatan Sansthan, Gujarat
18	Aravali, Jaipur, Rajasthan
19	Late J V Nariya Edu Trust, Jamnagar, Gujarat
20	Brahamand Trust (BET), Gujarat
21	Rotary Club, Kadodara, Gujarat
22	Cohesion Foundation Trust, Kutchh, Gujarat

23	Kutch NavNiman Abhiyan, Gujarat
24	Sahjeevan Kutch, Gujarat
25	Development Support Center (DSE), Gujarat
26	AIM, Lucknow, Uttar Pradesh
27	Dhruva, Gujarat
28	Ishwar GVT, Patan, Gujarat
29	Navjeevan, Rajkot, Gujarat
30	Shree Bolbala Trust, Rajkot, Gujarat
31	Saptic Society of Surat, Saputara, Gujarat
32	People's Welfare Society, Gujarat
33	South Gujrat Backward Class Seva Mandal, Gujarat
34	Chetna Foundation, Gujarat
35	Seva Mandal, Megharaj, Gujarat
36	HAS, Vadodara, Gujarat
37	Pratibha Foundation, Vadodara, Gujarat
38	Deepak Foundation, Vadodara, Gujarat
39	Human Welfare Association (HWA), Varanasi, Uttar Pradesh
40	UETS, Andhra Pradesh
41	Samata, Andhra Pradesh
42	SUTRA, Himachal Pradesh
43	Satya Social Welfare Educational Society (SSWE[[S), Uttar Pradesh

## RESEARCH/ INDUSTRIAL INTERNSHIPS

After the completion of the foundation courses, the BTech students undertake a 6-8 weeks industrial or research internship after the sixth semester (during summer vacation) depending upon their career goal. They also undertake a BTech Project (BTP) in the eighth semester during which they demonstrate their ability to learn current areas of research or topics of industrial interest. The MSc (IT) students carry out a summer internship in between the first and second semesters followed by a full semester project in the final semester. The MDes (CD) students also undertake a project in the fourth semester.

Usually a research internship is done in an academic institute under the supervision of a faculty. The objective of this internship is to expose the student to cutting edge research. On the other hand, an

industrial internship is done in a selected company to familiarize the student with the corporate environment. A student chooses between an industrial and a research internship based on his career plan.

In 2014 BTech batch, there were 277 eligible students for internship. Out of these 132 students undertook industry internships, while 145 undertook research internships. Some of the academic institutes where the students did their internships were University of California, USA Nanyang Technological University (NTU), Singapore, and Indian Institute of Technology Gandhinagar. Likewise some of the companies where the students undertook internships were Morgan Stanley, Amazon, Sprinklr, Larsen and Toubro. **Table 5** provides details on organisations/ Institutions where the students undertook internships.

**Table 5: List of Organisations/Institutions Hosted Students for Internships**

No. of students opting for Summer Internships - 45 (Off-campus through Placement)		
Sr. No.	Name of the organizations/ Institution	No. of Students
1	Amazon India	7
2	Sprinklr Solutions	12
3	Morgan Stanley Advantage Services	5
4	Endurance International Group	2
5	MAQ Softwares	5
6	Visa Consolidated Support Services	1
7	Microsoft	1
8	White Panda	2
9	Kristal.Ai	2
10	Dailyhunt	4
11	Hedonista	1
12	Birst India	1
13	Cube26 Software	2

Number of students opting for Industrial Internship – 307		
Sr. No.	Name of the Organization	No. of Students
1.	2Bound	2
2.	Allerin	3
3.	Amazon	13
4.	Apttus	8
5.	Bitmapper	3
6.	Capillary Technologies	5
7.	CommScope	2
8.	Compusense Automation	4
9.	Covium	5
10.	CRD	1
11.	Deloitte	16
12.	Directi	4
13.	DSC	1
14.	E-Infochips	10
15.	Endurance International	1

16.	Etech Global Services	1
17.	Evive Health	7
18.	Evosys	3
19.	FactSet	12
20.	Helical	2
21.	Infocusp	10
22.	Infosys	33
23.	Innovaccer	4
24.	Investis	3
25.	Juniper	9
26.	Kivi	3
27.	Knowarth	2
28.	Kuliza	8
29.	L&T	1
30.	Logistixian	1
31.	MAQ	14
32.	Morgan Stanley	11
33.	Nagarro	7

34.	OFSS	6
35.	Optimized Solutions	2
36.	Oracle	10
37.	Phonon	3
38.	PlexusMD	9
39.	RTCamp	2
40.	Saba	6
41.	Sapient	13
42.	Searce	10
43.	Servify	6
44.	Sprinklr	16
45.	TCS	1
46.	TCS (CTO)	3
47.	Teal Labs	3
48.	Verse	4
49.	Zapr	2
50.	Zeus Learning	2



## Thirteenth Convocation

The thirteenth annual Convocation was held on Saturday, 21st January, 2017. Six PhD Scholars, 45 M. Tech, 75 M. Sc (IT), 5 M. Sc (ICT-ARD), 6 M.Des (CD), and 212 B. Tech students have received their Degrees.

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

Sr. No.	Name	Program
1	Devanshu Jain	BTech (ICT)
2	Parikh Sagar	MTech (ICT)
3	Samirbhai Thakkar Devang Jayantilal	MTech (ICT)
4	Sounak Banerjee	MSc (IT)
5	Mahendra Kumar Yadav	MSc (ICT-ARD)
6	Riddi Mehta	MDes (CD)

Dr G. Athithan, Distinguished Scientist and Director General, Micro Electronic Devices & Computational Systems, Defence Research & Development Organization, Government of India was the Chief Guest for the Convocation.

The topic of Dr Athithan's address was the importance of 'Securing our Cyber Space.' In his address, he highlighted the role of computers in processing, communicating and storing information which is crucial for the development of the country and most importantly country's defence. He recounted how the concept of cyber-physical systems emerged over the years and emphasized that this requires focus at the boundary between the cyber and physical worlds. He pointed out that, given the indispensable and deep roles that the computer networks play in the effective operation of our critical infrastructure and in our defence preparedness, the integrity and control of the associated cyber



space are essential. He narrated in detail various dimensions in defending the country's cyber space and its assets and stated that paying attention to each of these dimensions is essential to arrive at a total solution with high assurance. He highlighted on the challenges to arrive at the solution and listed various approaches such as ensuring the operators and users of computer networks to follow best practices, evolving usage-specific access models and enforcing them and customizing strong authentication technologies to support these models. He also forewarned that external threat is easier to identify and counter, the insider threat is insidious by nature and recognizing and neutralizing it is likely to be a constant challenge and they should be tackled through network traffic and host activity analysis applying signature detection and rule-based anomaly detection methods. He suggested that learning from complex biological systems as to how their immune techniques work in the physical world can help us in addressing this challenge. He

warned that the real sources of threat to our cyber systems are our human adversaries acting alone or as proxies of their national interests and their game would be to hide their footprint and camouflage their activities. Therefore, cyber security should learn from artificial intelligence in order to locate and track the cyber threats. He emphasized that the measures need to be supplemented by training and awareness programs eclectically enlisting faculty from all available sources.

Dr Athithan put forward to the graduating class a ten-fold way to achieve excellence in their personal and professional life. He advised them to plan and decide on a long term goal, align the goals with the organizations they chose to work for, be proactive and take initiative, follow the simple and shun the complex and collaborate and share credit.

Prof. R Nagaraj, the then Director, presented a brief report on the Institute's activities and achievements.



## 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 aim of the Institute is to encourage basic, applied and developing research conducted both by students and members of faculty alike. The Institute's encouragement clearly 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 the society.

DA-IICT's infrastructure, ranging from various well-equipped 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 is also encouraged to seek out 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 2016-17, the Institute received grant for 3 new sponsored projects.

**Table 6: New Projects**

Title of the Sponsored Project	Sponsoring 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 Characterization of Soil Clay Minerals using AVIRIS-NG Data	ISRO/DoS	Prof. Ranendu Ghosh Prof. 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 Prof. Mukesh Tiwari



Faculty continued work on 13 on-going sponsored projects.

**Table 7: On-going Projects**

Title of the Sponsored Project	Sponsoring Agency	Investigators
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. Anish Mathuria
Techno Feasibility Study on Automation of Hydroponics and Green House Cultivation	GHM	Prof. Ranendu Ghosh Prof. Rahul Dubey
Processor RTL Customization and Development of Low Power Design Flow Methodology	GUJCOST	Prof. Amit Bhatt Prof. Mazad Zaveri
Enabling Technologies for Remote Health Monitoring	GUJCOST	Prof. Biswajit Mishra 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 Prof. M.V. Joshi
Center Early Adopter - NSF/ TCPP CDER	NSF (USA)	Prof. Bhaskar Chaudhury Prof. Mukesh Tiwari
Ultra Wide Band Dielectric Resonator Antenna	ISRO/DoS	Prof. Deepak Ghodgaonkar Prof. Sanjeev Gupta
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	DeitY	Prof. Hemant A Patil Prof. M.V. Joshi
Value Addition in Grassroots Technologies	National Innovation Foundation	Prof. Anil Roy Prof. Rahul Dubey
Development of Cross Lingual Information (CLIA) System (Phase-II)	DeitY	Prof. Prasenjit Majumder 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. This includes one project each of NBHM, DST and ISRO/DoS.

**Table 8: Completed Projects**

Title of the Sponsored Project	Sponsoring Agency	Investigators
Knowledge Compilation in Modal and Multimodal Logic	NBHM	Prof. Manoj Raut Prof. Rahul Muthu
Design, development and hardware implementation of BPSK, QPSK and other modulation schemes as part of Software Defined Radio (SDR)/ Cognitive Radio (CR) for use in SATCOM Terminals	ISRO/DoS	Prof. Vijay Kumar Chakka Prof. Rahul Dubey
Evaluation of Spatiotemporal Dynamics of Land Surface Evapo-transpiration and Monsoon Rainfall Coupling over Indian Region for Climate Change Studies	DST	Dr. Indrani Choudhury Singh

## CONSULTANCY PROJECTS

The following are the ongoing consultancy projects

**Table 9: Consultancy Projects**

Organization	Consulting Area	Faculty
(n) Code Solutions	(1) Testing of Wireless Device and CCTV Surveillance System	Anil Roy
	(2) Internet Wi-Fi Network Security Testing	Anil Roy

### 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 business idea based on 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:

1. **AlmaConnect Solutions Private Limited** - creates network for educational institutions and tracks their alumni members.
2. **Playpower Labs Private Limited** - develops game curriculum for school students and data analytics for companies involved in the field of education.
3. **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 blue collar and entry level segment.

The following start-ups are under the process of incubation:

1. **Yoctosehns Technologies Private Limited** - a through monitoring of cattle at a low cost. It helps in estrus detection with a simple user interface.
2. **Truebook Technologies Private Limited** - 'True Sarathi' is a cloud and app base workflow management system to cover diary, conversation, chats, data, reminders, notes at single place which brings everything in vicinity and provides a bird eye view on multiple projects and tasks.

The total funding disbursed by DCEI to start-ups amounted to Rs.102.5 lakh. The DCEI continues to extend mentorship and other support to the promoted start-ups.

The DCEI participated at the Vibrant Gujarat Start-Up Summit in October 2016, a one of a kind platform for all the budding entrepreneurs in Gujarat and also set up a stall to popularize the concept and ideas of start-ups. It conducted an orientation program on the theme 'Breaking the Myth' on 9th November, 2016, to create awareness among students of DA-IICT and other institutes about the working of DCEI, incubation process of start-ups and enthuse them on the concept of entrepreneurship. Dr. Ronak Shodhan, Professor, Indian Institute of Technology, Kanpur, spoke at the orientation program. Another propagation program titled '10X Challenge' was conducted on 2nd October, 2016 to a team of DA-IICT students to demonstrate business opportunities to avail funding from DCEI.



## 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

community. Below is a listing of the conferences and workshops organised during 2016-17:

**Table 10: Conference, Seminar, and Workshop Organised**

Title	Dates	Sponsoring Agency
International Symposium on Computational Biology and DNA Computing	26 November 2016	Gujarat State Biotechnology Mission (GSBTM), DST, Govt. of Gujarat and DA-IICT
Familiarization with Visual TCAD Tool	4 February 2017	DA-IICT
NTU-India Connect and DA-IICT Workshop on Data Science	21-22 July 2017	DA-IICT & Reliance Communications Limited

### 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 2016-17:

**Table 11: Visitors**

Visitor and Affiliation	Date
Shri Manish Choudhary, Publishing Manager, Cambridge University Press	9 August 2016
Shri Hasit Kaji, Vice President, Tata Consultancy Services, Mumbai	9 August 2016 & 24 August 2016
Prof. B.V.R. Chowdari, Senior Executive Director & Professor, Nanyang Technological University, Singapore	24 August 2016
Dr. Prabhat Ranjan, Director, Technology Information, Forecasting and Assessment Council, Government of India, New Delhi	30 August 2016
Dr Rajiv V. Joshi, Senior Research Fellow, IBM Watson Research Center, NY, USA	30 January 2017
Brig. Manprakash, 85 Infantry Brigade, Military Station, Gandhinagar Cantt, Gandhinagar	11 January 2017
Dr. Jayanti Ravi, IAS, Principal Secretary (Public Health & Family Welfare) & Commissioner of Health, Medical Services & Medical Education, Government of Gujarat	19 January 2017
Dr. P.K. Mishra, President and Chief Advisor, Kaziranga University, Assam	23 January 2017
Prof. Yogesh B. Gianchandani, Center Director, Center for Wireless Integrated Microsensing & Systems, University of Michigan, USA	1 February 2017
Dr. Madhu Mehta, Chief Mentor Emeritus, International Centre for Entrepreneurship and Technology, Ahmedabad	26 July 2017



## Faculty Publications

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

During the reporting year, the faculty published 4 books, 4 chapters in books and 116 papers in journals and conferences along with 12 technical papers.

### Books

1. **Alka Parikh**, Sumit Singh, and Krati Agrawal, "India's growth story: Sector-wise," Germany: Lambert Academic Publishing, 2017, pp. 56. ISBN: 978-365-96-0960-2
2. **Alka Parikh**, "Risks in Agriculture: Farmers' Perspective," Singapore: Springer, 2017, pp. 104. ISBN: 978-981 10-6271-1
3. Jignesh Bhat, and **Manjunath Joshi**, "Regularization in hyperspectral imaging," Bellingham, Washington: SPIE Press, Dec 2016, pp. 39. ISBN: 978-151-06-0759-0
4. Milind G. Padalkar, **Manjunath V. Joshi**, and Nilay L. Khatri, "Digital Heritage Reconstruction Using Super-resolution and inpainting," San Rafael: Morgan Claypool, Dec 2016, pp. 168. ISBN: 978-162-70-5616-8

### Book Chapters

1. **Alka Parikh**, "Make in India: Performance and Possible Solutions," in Pay India 2017, Subhashini Srivatsa and Venkatesha Nayak, eds., published by University Evening College, Mangaluru, 2017.
2. **Bhaskar Chaudhury**, "Radar Cross-Section Reduction: Stealth Technology," In: Encyclopedia of Plasma Technology, J. Leon Shohet, eds., Boca Raton: CRC Press, 2016, pp. 1224-1235. Doi: 10.1081/E-EPLT-120051937.
3. **Madhumita Mazumdar**, "Science and the Making of a New Nationalist Masculinity in Colonial Bengal" In: Feminist and Science:

Critiques and Changing Perspectives in India, Sumi Krishna and Gita Chadha, eds., Vol. 02, Los Angeles : Sage, 2017, pp. 175-206. ISBN-978-93-8145-19-1.

4. Manik Lal Das, "Privacy and Accountability Concerns in the Age of Big Data," In: Big Data: Storage, Sharing, and Security, Fei Hu, eds., Boca Raton: CRC Press, 2016, pp. 341-356. ISBN: 978-149-87-3486-8

### Journal Papers

1. Girja Sharan, **Anil K. Roy**, Laurent Royon, Anne Mongruel, and Daniel Beysens, "Dew plant for bottling water," Journal of Cleaner Production, vol. 155, no. 1, 01 Jul. 2017, pp. 83-92. doi: 10.1016/j.jclepro.2016.07.079
2. Leanne C. Pitchford, Luis L. Alves, Klaus Bartschat, Stephen F. Biagi, Marie-Claude Bordage, Igor Bray, Chris E. Brion, Michael J. Brunger, Laurence Campbell, Alise Chachereau, **Bhaskar Chaudhury**, Loucas G. Christophorou, Emile Carbone, Nikolay A. Dyatko, Christian M. Franck, Dmitry V. Fursa, Reetesh K. Gangwar, Vasco Guerra, Pascal Haefliger, Gerjan J. M. Hagelaar, Andreas Hoesl, Yukikazu Itikawa, Igor V. Kochetov, Robert P. McEachran, W. Lowell Morgan, Anatoly P. Napartovich, Vincent Puech, Mohamed Rabie, Lalita Sharma, Rajesh Srivastava, Allan D. Stauffer, Jonathan Tennyson, Jaime de Urquijo, Jan van Dijk, Larry A. Viehland, Mark C. Zammit, Oleg Zatsarinsky, Sergey Pancheshnyi, "LXCat: an Open-Access, Web-Based Platform for Data Needed for Modeling Low Temperature Plasmas," Plasma Processes and Polymers, vol. 14, no. 1-2, Jan. 2017, pp. 01-17. doi: 10.1002/ppap.201600098
3. Hardik N. Patel and **Deepak Ghodgaonkar**, "Study of Effect of Numerical Breast Phantom Heterogeneity on Dielectric Profile Reconstruction Using Microwave Imaging," Progress in Electromagnetics Research M, vol. 58, no., 13 Jul. 2017, pp. 135-145. doi: 10.2528/PIERM17041302

4. Hardik N. Patel and **Deepak Ghodgaonkar**, "Application of Group Theory for Computation Reduction in Microwave Imaging of Human Breast Model at 500 MHz," *Progress in Electromagnetics Research M*, vol. 51, no., 04 Nov. 2016, pp. 165-173. doi: 10.2528/PIERM16080502
5. **Gautam Dutta**, and Mitaxi Mehta, "Comment on 'Yet another encounter with the golden ration: balancing laminar bodies on the edge'," *European Journal of Physics*, vol. 37, no. 6, 20 Sep. 2016, pp. 1-4. doi: 10.1088/0143-0807/37/6/068002
6. Hardik B. Sailor, and **Hemant A. Patil**, "Novel unsupervised auditory filterbank learning using convolutional RBM for speech recognition," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 24, no. 12, Dec. 2016, pp. 2341-2353. doi: 10.1109/TASLP.2016.2607341
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8. Tanvina B. Patel, and **Hemant A. Patil**, "Cochlear filter and instantaneous frequency based features for spoofed speech detection," *IEEE Journal of Selected Topics in Signal Processing*, vol. 11, no. 4, 30 Dec. 2016, pp. 618-631. doi: 10.1109/JSTSP.2016.2647201
9. Tanvina B. Patel, and **Hemant A. Patil**, "Significance of Source-Filter Interaction for Classification of Natural vs. Spoofed Speech," *IEEE Journal of Selected Topics in Signal Processing*, vol. 11, no. 4, 15 Mar. 2017, pp. 644-659. doi: 10.1109/JSTSP.2017.2682788
10. Anshu Chittora, and **Hemant A. Patil**, "Data collection of infant's cries for research and analysis," *Journal of Voice*, vol. 31, no. 2, Mar. 2017, pp. 252.e15-252.e26. doi: 10.1016/j.jvoice.2016.07.007
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14. Sonam Nahar, and **Manjunath V. Joshi**, "A Learned Sparseness and IGMRF based Regularization Framework for Dense Disparity Estimation using Unsupervised Feature Learning," *IPSN Transactions on Computer Vision and Applications*, vol. 9, no. 1, Dec. 2017, pp. 01--15. doi: 10.1186/s41074-016-0013-0
15. Kishor P. Upla, **Manjunath V. Joshi**, and Nilay Khatri, "Regularized Pan-sharpening Approach based on Self-similarity and Gabor prior," *International Journal of Remote Sensing*, vol. 38, no. 4, 13 Jan. 2017, pp. 949-984. doi: 10.1080/01431161.2016.1274444
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17. **Mukesh Tiwari**, T. R. Krishna Mohan, Surajit Sen, "Impact decimation using alignment of granular spheres," *International Journal of Modern Physics B*, vol. 31, no. 10, 20 Apr. 2017, pp. 1742012-1-1742012-13. doi: 10.1142/S0217979217420127
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  31. **Hemant A. Patil**, Maulik C. Madhavi, "Combining evidences from magnitude and phase information using VTEO for person recognition using humming," Computer Speech & Language, 2017. doi: 10.1016/j.csl.2017.06.009.
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4. Dixita Limbachiya, Bansari Rao, **Manish K. Gupta**, The Art of DNA Strings: Sixteen Years of DNA Coding Theory. CoRR abs/1607.00266 (2016). url: <https://arxiv.org/abs/1607.00266>
5. Dixita Limbachiya, Dhaval Trivedi, and **Manish K Gupta**, "DNA Image Pro-A Tool for Generating Pixel Patterns using DNA Tile Assembly," FNANO 2017, Utah, USA, April. 2017. url: <https://arxiv.org/pdf/1607.03434.pdf>
6. Krishna Gopal Benerjee, **Manish K. Gupta**, On Optimal Heterogeneous Regenerating Codes. CoRR abs/1607.06313 (2016) url: <https://arxiv.org/abs/1607.06313>
7. Shreyansh A. Prajapati, **Manish K. Gupta**: On Some Universally Good Fractional Repetition Codes. CoRR abs/1609.03106 (2016). url: <https://arxiv.org/abs/1609.03106>
8. Amay Agrawal, Birva Patel, Dixita Limbachiya, and **Manish K. Gupta**, "3DNA Printer: A Tool for Automated DNA Origami," FNANO 2016, Utah, USA, April. 2017 url: <https://arxiv.org/abs/1702.04343>
9. Payal Chaudhari and **Manik Lal Das**. Cryptanalysis of Searchable Anonymous Attribute Based Encryption. IACR ePrint Achieve, No. 2016/347, url: <http://eprint.iacr.org/2016/347>
10. Ravi Goyal, Mahipal Jadeja, and **Rahul Muthu**, "A New Characterisation of Total Graphs, url: <https://arxiv.org/abs/1602.04698>
11. **Saurabh Tiwari** and Santosh Singh Rathore, "A Methodology for the Selection of Requirement Elicitation Techniques". CoRR abs/1709.08481, 2017. url: <https://arxiv.org/abs/1709.08481>
12. **Sourish Dasgupta** User Profile Based Research Paper Recommendation - CoRR abs/1704.07757 (2017) url: <https://arxiv.org/pdf/1704.07757.pdf>.



## 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

- Joint Director, Uplift India Association (a mutuals for micro health insurance), Pune
- Trustee, Utthan, Ahmedabad
- Member, Governing Board, Center for Social Studies, Surat

#### Anil K. Roy

- Treasurer, IEEE India Council (Jan 2015 - Dec 2016)

#### Anish Mathuria

- Member, Faculty Selection Committee, Indian Institute of Information Technology Dharwad, Karnataka

#### Bhaskar Chaudhury

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

#### Deepak Ghodgaonkar

- Fellow, The Institution of Engineers, Malaysia (FIEM), Malaysia
- Life Fellow, Institution of Electronics and Telecommunication Engineers, (FIETE), India
- Senior Member, Institute of Electrical and Electronics Engineers, (SMIEEE), USA
- External Examiner, PhD. thesis Faculty of Electrical Engineering, Universiti Teknologi, MARA, Shah Alam, Selangor, Malaysia

#### Hemant A. Patil

- Member, Board of Studies, DA-IICT, Gandhinagar, Gujarat

- Member, Research Promotion Committee, DA-IICT, Gandhinagar, Gujarat
- Member, Board of Studies, GHRIEM, Jalgaon, Maharashtra
- Member, Research Progress Committee, Nirma University, 2017
- Co-chair, Session for Speech Processing, International Conference on Next Generation Intelligent Systems, RIT Kottayam, Kerala.
- MS Thesis Examiner, Cross-lingual Speech Synthesis and Enhancement of Dysarthric Speech, IIT Madras, February 2017
- Member, International Speech Communication Association (ISCA)
- Member, IEEE, USA
- Member, IEEE Signal Processing Society, USA
- Affiliate Member, IEEE, Speech and Language Technical Committee (SLTC)
- Member, IEEE Circuits and Systems Society, USA
- Member, International Association for Engineers
- Life Member, System Society of India

#### Manish Kumar Gupta

- Member, Doctoral Committee, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat
- Project Reviewer, Swiss National Science Foundation, December 2016.
- Chairman, Screening Committee for Gujarat Government Nodal Institute for Start-ups at DA-IICT, Gandhinagar, Gujarat
- University Coordinator, Gujarat State Student Startup and Innovation Policy (SSIP) of Education Department, Government of Gujarat
- Chairman, Executive Council, DA-IICT Center for Entrepreneurship & Incubation, Gandhinagar, Gujarat
- Founding Member, Executive Council, DA-IICT Center for Entrepreneurship & Incubation, Gandhinagar, Gujarat
- Chairman, Web Committee, DA-IICT, Gandhinagar, Gujarat
- University Coordinator, ICICI Bank Trinity Program, DA-IICT, Gandhinagar, Gujarat
- Member, Gujarat State Special Task Force Committee for Start-ups



- Member, Technical Advisory Committee, Gujarat State Biotechnology Mission, Department of Science and Technology, Government of Gujarat
- Member, Screening sub-committee for Gujarat Government Nodal Institute for start-ups at Industries Commissionerate, Government of Gujarat
- Member, Board of Studies, BTech Computer Science, Institute of Advanced Research, Gandhinagar
- Official Judge, Biomod 2017, Harvard/UCSF University

#### **Rutu Parekh**

- Chair, IEEE Nanotechnology Council, Gujarat Section.

#### **Sanjeev Gupta**

- Member, Board of Governors, DA-IICT
- Member, Board of Governors, IIIT Vadodara
- Member, Governing Council, Gujarat Industrial Research and Development Agency, Vadodara
- Member, Board of Governors, DA-IICT Centre for Entrepreneurship and Incubation
- Member, Academic Council, DA-IICT
- 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, Ahmedabad
- Member, Advisory Committee for PG Research Center for Mobile Computing & Wireless Technologies, Gujarat Technological University, Ahmedabad
- External Expert Member, Faculty selection, Doctoral Studies and Research, Nirma University, Ahmedabad
- Member, Board of Studies of Charotar University of Science and Technology, Changa, Gujarat
- Member, Board of Studies for SATCOM

(Satellite Communications) Course conducted by Centre for Space Science and Technology Education in Asia and the Pacific (affiliated to the United Nations), IIRS Campus, Dehradun (Headquarters) & SAC Campus, Ahmedabad

- Member, Board of Governors, Government Engineering College, Gandhinagar
- Member, Academic Council, CU Shah University, Wadhwan City, Surendranagar District, Gujarat
- Member, Board of Studies, Indus University, Ahmedabad
- Member, Board of Studies, LDRP Institute of Technogu and Reasearch, Kadi Sarva Vishwavidyalaya, Gandhinagar
- External Expert Member, Faculty selection, Institute of Technology, Nirma University, Ahmedabad
- External Expert Member, Faculty selection, Gujarat Technological University, Ahmedabad
- Subject Expert, Faculty selection, Charotar University of Science and Technology, Changa, Gujarat
- Member, Doctoral Progress Review Committee, 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, to review the academic performance of ME in Wireless and Mobile Computing of Gujarat Technological University, Ahmedabad, Gujarat
- PhD Thesis Examiner, Mukesh Patel Institute of Technology, Narsee Monjee Institute of Management Studies, Mumbai, Maharashtra
- 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, Ahmedabad
- Member, Antenna Test and Measurement Association
- Member, Agilent's Test Advisory Panel

#### V. Sunitha

- Member, Board of Studies, Mathematics, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat

### FELLOWSHIPS/VISITING SCHOLARSHIPS

#### Manjunath Joshi

- Visiting faculty IIIT Vadodara, January-April, 2017
- Guest Researcher, Pattern Recognition Lab, FAU, Erlangen, Germany, May-July 2017

#### Rutu Parekh

- Visiting Associate, Inter University Centre of Astronomy and Astrophysics, Pune

### JOURNAL EDITORSHIP

#### Hemant A. Patil

- Member, Editorial Board, Engineering Letters, International Journal

#### Manish Kumar Gupta

- Associate Editor, Journal of Applied Mathematics and Computation, Springer, 2017
- Associate Editor, AIMS Electronics and Electrical Engineering, AIMS Press, 2017

#### Rutu Parekh

- Member, Editorial Board, Journal of Electrical Engineering Science Research Association since March 2017
- Member, Editorial Board, Journal of Electrical and Electronic Engineering, since Sept. 2013

#### Sanjeev Gupta

- Member, Editorial Board, International Journal on Advanced Communication Technology, ISSN: 2229-7677
- Member, Editorial Board, International Journal of Engineering and Technology Management, Bi-monthly on-line journal published in Iran.

#### Suman K Mitra

- Associate Editor, International Journal on Image and Graphicsby, World Scientific Press
- Associate Editor, IET, Image Processing

### REVIEWING OF JOURNAL/ CONFERENCE PAPERS

#### Journal Paper Reviewing

#### Anil K. Roy

- IEEE Sensors Journal, IEEE

#### Anish Mathuria

- IEEE Systems Journal, IEEE
- IEEE Transactions on Services Computing, IEEE

#### Arnab Kumar Ray

- Scientific Reports, Nature

#### Biswajit Mishra

- Sensors and Actuators, Elsevier
- IEEE Transactions on Very Large Scale Integration Systems, IEEE
- IEEE Transactions on Circuits and Systems, IEEE

#### Bhaskar Chaudhury

- Advances in Space Research, Elsevier
- European Physical Journal: Applied Physics, EDP Sciences
- IEEE Transactions on Microwave Theory and Techniques, IEEE
- IEEE Transactions on Plasma Science. IEEE
- Journal of Applied Physics, American Institute of Physics
- Journal of Physics D: Applied Physics, Institute of Physics, UK Journal
- Journal of Electromagnetic Waves and Applications, Taylor & Francis Group
- Physics of Plasmas, American Institute of Physics
- Plasma Sources Science and Technology, Institute of Physics, UK

#### Deepak Ghodgaonkar

- IEEE Transactions on Instrumentation and Measurement, IEEE



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

#### **Hemant A. Patil**

- IEEE Journal of Selected Areas in Signal Processing, IEEE
- Computer Speech and Language, Elsevier

#### **Kalyan Sasidhar**

- IEEE Transactions on Instrumentation and Measurement, IEEE
- Journal of Big Data, Springer

#### **Laxminarayana Pillutla**

- IEEE Transactions on Vehicular Technology, IEEE
- IEEE Communications Letters, IEEE

#### **Manjunath Joshi**

- IEEE Transactions on Image Processing, IEEE
- IEEE Transactions on Geoscience and Remote Sensing, IEEE
- Optical Engineering, SPIE
- Sadhana, Springer

#### **Manish Kumar Gupta**

- Designs Codes and Cryptography, Springer

#### **Manish Narwaria**

- IEEE Transactions on Image Processing, IEEE
- IEEE Transactions on Multimedia, IEEE
- IEEE Transactions on Circuits and Systems for Video technology, IEEE
- Signal Processing: Image Communication, Elsevier

#### **Manik Lal Das**

- IEEE Systems Journal, IEEE
- IEEE Transactions on Cloud Computing, IEEE
- IEEE Transactions on Vehicular Technology, IEEE
- IEEE Transactions on Information Forensics and Security, IEEE

#### **Minal Bhise**

- Knowledge and Information Systems, Springer

#### **Mukesh Tiwari**

- Granular Matter, Springer

- International Journal of Modern Physics, World Scientific

#### **Rajib Lochan Das**

- IEEE Transactions on Signal Processing, IEEE
- IEEE Transactions on Very Large Scale Integration, IEEE
- IEEE Transactions on Circuits and Systems II: Express Briefs, IEEE
- IEICE Transactions on Fundamental, Institute of Electronics, Information and Communication Engineers
- IETE Technical Review, Taylor & Francis Group

#### **Rahul Muthu**

- Journal of Discrete and Applied Mathematics, Elsevier

#### **Rutu Parekh**

- Microelectronics Journal, Elsevier
- Journal of Electrical and Electronic Engineering, Science Publishing Group

#### **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, IEEE
- Indian Journal of Physics, Springer
- Journal of the Indian Institute of Science, Springer
- Iranian Journal of Electrical and Computer Engineering, Iran University of Science and Technology
- International Journal on Science and Technology, IJST Publications UK
- Journal of Communication Technology, ICTACT
- ADIT Journal of Engineering, A.D. Patel Institute of Technology

#### **Sourish Dasgupta**

- IEEE Transactions on Systems, Man, and Cybernetics: Systems, IEEE
- IEEE Transactions on Computational Intelligence and AI in Games, IEEE

## Conference-Paper Reviewing

### Anil K. Roy

- IEEE SENSORS 2016

### Biswajit Mishra

- International Symposium on Circuits and Systems, Baltimore, Maryland, USA, 28-31 May 2017

### Hemant A. Patil

- International Conference on Acoustics Speech and Signal Process, New Orleans, USA during 05-09 March 2017
- INTERSPEECH 2016, San Francisco, USA, 08-12 September 2016
- FIRE'16, ISI Kolkata, India, 08-10 December 2016

### Laxminarayana Pillutla

- IEEE Globecom 2017

### Manish Narwaria

- Fourty Second IEEE International Conference on Acoustics, Speech and Signal Processing, New Orleans, USA, 5-9 March 2017
- IEEE International Conference on Image Processing, Phoenix, Arizona, 25-28 September 2016
- IEEE International Conference on Multimedia and Expo, Hong Kong, 10-14 July 2017
- IEEE Visual Communications and Image Processing, Chengdu, China, 27-30 November 2016

### Manik Lal Das

- International Conference on Smart Systems, Innovations and Computing, Jaipur, India, 2017
- International Conference on Mathematics and Computing, Haldia, India, 17-21 January 2017
- International Conference on Distributed Computing and Internet Technologies, Bhubaneswar, India, 13-18 January 2017
- International Conference on Information Systems Security, Jaipur, India, 16-20 December 2016

### Manjunath Joshi

- Asian Conference on Computer Vision, 20-24 November 2016.
- Indian Conference on Computer Vision, Graphics and Image Processing, Guwahati, 18-22 December 2016

- National Conference on Communications, 2-4 March 2017

### Puneet Bhateja

- Symposium on Applied Computing, 2017

### Rajib Lochan Das

- International Conference on Digital Signal Processing, 16-18 October 2016
- International Conference on Computer Vision & Image Processing and Workshop on Multimedia, 10-12 September 2017

### Rutu Parekh

- International Conference on Advanced Computational and Communication Paradigms, Sikkim Manipal Institute of Technology, Sikkim, 08-10 September 2017
- IEEE International Conference on Robotics and Automation, Marina Bay Sands Convention Centre, Singapore, May 29 - June 3, 2017
- International Conference on Applied Mathematics, Modelling and Statistics Application, Beijing, China, 21-22 May 2017
- International Conference on Energy, Power and Environmental Engineering, Shanghai, China, 23-24 April 2017
- Second International Conference on Modelling, Simulation and Applied Mathematics, Bangkok, Thailand, 26-27 March 2017
- International Conference on Electrical, Computer and Communication Technologies, SVS College of Engineering, Coimbatore, Tamil Nadu, 22-24, February 2017
- Editor, The Grace Hopper Celebration of Women in Computing, Houston, Texas, USA, 19-21 October 2016

### Sanjeev Gupta

- International Conference on Computers, Communication and Computational Sciences, Aryabhatta College of Engineering and Research Centre, Ajmer, 12-13 August 2016
- International Conference on Technology and Management, Sankalchand Patel College of Engineering, Visnagar, Gujarat, 17-18 February 2017
- Fifth National Conference on Innovations and Emerging Technologies, Smt. SR Patel Engineering College, Unjha, Mehsana, Gujarat, 27-28 May 2017



#### **V. Sunitha**

- Third International Conference on Algorithms and Discrete Applied Mathematics, 2017

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

#### **Anil K. Roy**

- Internet of Things - What is the Big Picture?, Samvaad-2016, Silver Oak College of Engineering and Technology, Ahmedabad, 23 December 2016.
- Smart City/Village: Are we ready with adequate standards?, CII's Smart Villages & Cities Conclave 2016: Conference on Smart Technology, Ahmedabad, 17 December, 2016.
- Intrusion through hardware: a silent enemy, Cyber Security Workshop 2016, Mumbai, 13 November, 2016.

#### **Anish Mathuria**

- Evolution of Stack-Based Control Hijacking Attacks, National Conference on Recent Advances in Computer Science & Technology, G H Patel College of Engineering & Technology, Vallabh Vidyanagar, 5 October 2016

#### **Arnab Kumar Ray**

- Complex Networks in Free and Open-Source Software, Institute of Advanced Research, Gandhinagar, 13 April 2017
- Evolution and Instability of Bondi Accretion, Institute for Plasma Research, Gandhinagar, 4 July 2017

#### **Amit Mankodi**

- Wireless Sensor Network and Internet of Things, Introduction, Role of Embedded Systems in WSN and IOT, Communication in WSN and IOT, Challenges, Applications, Government Polytechnic, Ahmedabad, 12 December 2016

#### **Alka Parikh**

- Alka Parikh, Risks in Agriculture, National Seminar Series on Economic Development Across Sectors, Development Discourses on Theories & Policies, Bhavnagar University, Bhavanagar, 28-29 March 2017

#### **Gagan Garg**

- Resource Person, Cryptography and Algebraic Coding Theory, Indraprastha Engineering

College, Sahibabad, Ghaziabad, 14-18 March 2017

#### **Hemant A. Patil**

- Speaker, Summer School on Speech and Language Recognition, DA-ICT Gandhinagar, 08-12 July 2017
- Invited talks during STTP organized by Department of IT, Nirma University, Ahmedabad, June 30 and July 3-4, 2017
- Invited talks during STTP organized by Department of ECE, Nirma University, Ahmedabad, 29-29 June 2017
- Invited talk at the Department of IT, Nirma University, Ahmedabad, 12 April 2017
- Invited talk at Nirma University, Ahmedabad, 08 April 2017
- Invited talks at GHRIEM, Jalgaon, 10 March 2017
- Invited talk at STTP on Recent Trends in Engineering & Technology and its Impact on Academic Reforms, Government Engineering College, Gandhinagar, 21 December 2016
- Talk on Applications of Speech Source Modelling at the International Conference on Next Generation Intelligent Systems, RIT Kottayam, Kerala, India, 01-03 September 2016
- Invited Speaker at the Workshop on Image and Speech Processing, Rajarshi Sahu College of Engineering, Pune, 27 August 2016

#### **Kalyan Sasidhar**

- Invited lecture on Smartphones as pervasive sensing platforms, SRM University, Chennai, September 2016

#### **Manish Kumar Gupta**

- Algebraic and Computational DNA Codes, National Conference on Discrete Mathematics and Graph Theory XIII, June 2017
- Sustainable Technologies for Clean Energy: Challenges and Opportunities, Gujarat Science Congress, 5 February 2017, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat
- The Art of DNA Strings: Data Storage, US-India Advanced Studies Institute: Classical and Quantum Information, International Centre for Theoretical Sciences, TIFR Bangalore, 2 January 2017

- The Art of DNA Strings, International Symposium on Computational Biology and DNA computing, Gujarat State Biotechnology Mission, DST, Government of Gujarat & DA-IICT, Gandhinagar, 26 November 2016
- Some Interdisciplinary Emerging opportunities in Science and Technology: The Art of DNA Strings, Gujarat State Biotechnology Mission, Government of Gujarat, Gandhinagar, Gujarat, 24 October. 2016

#### **Manjunath Joshi**

- Talk at STTP, SVNIT Surat, 21-25 January 2017
- Expert talk at QIP Sponsored short term course, SVNIT Surat, 19-23 December 2016

#### **P M Jat**

- National Conference, Smt. S. R. Patel Engineering College, Dabhi, Unjha, Mehsana, Gujarat

#### **Rahul Muthu**

- Indo-Taiwan Conference on Discrete Mathematics, Tamkang University, Taipei, Taiwan, 2017
- ADMA Workshop on Discrete Mathematics and Graph Theory, Chennai, India, 2017
- ACM-India Summer School on Graph Theory and Graph Algorithms, IIT Gandhinagar, 2017

#### **Rutu Parekh**

- Career Guidance Seminar, WIE Affinity Group, IEEE Student Chapter, LD College of Engineering, Ahmedabad, 17 June 2017
- Student's Workshop on Recent Trends in VLSI & Embedded System Design, Technical Education Quality Improvement Programme of Government of India, Government Engineering College, Gandhinagar, 24 March 2017
- Delivered lectures on Microelectronics to Nanoelectronics, at the Technical Education Quality Improvement Programme of Government of India, Shantilal Shah Engineering College, Bhavnagar, 23 February 2017
- Introduction to Nanoscience and Nanotechnology and Microelectronics to Nanoelectronics, under Technical Education Quality Improvement Programme of Government of India, Government Engineering College, Rajkot, 6 April 2016

#### **Shweta Garg**

- Effective Communication Skills, conducted one day Workshop at Raksha Shakti University, Ahmedabad, 17 September 2016.

#### **Saurabh Tiwari**

- Expert Lecture on Software Testing and its Advancements, Charotar University of Science & Technology, Changa, Gujarat, 3 March 2017

#### **Sanjeev Gupta**

- Expert Lecture, Challenges and Design Issues in RF and Microwave Engineering, Recent Advances in RF and Microwave Engineering, EC Department, LD College of Engineering, Ahmedabad, 24 November, 2016.
- Invited Talk, RF and Wireless Design, Short Term Training Program on Recent Trends in Engineering and Technology and its Impact on Academic Reforms, Government Engineering College, Gandhinagar, Gujarat, 19-30 December 2016.
- Invited Lecture, RF Design Fundamentals, EC Department, Charotar University of Science and Technology, Changa, Gujarat, 11 March 2017.
- Invited Talk, What and Why of Research, Research Orientation Programme, Nirma University, Ahmedabad, 5-17 June 2017.

#### **Sourish Dasgupta**

- Presentation on RAX- Research Assistant tool, University of Missouri - Kansas City, USA

#### **V. Sunitha**

- National Seminar on Mathematics and its Applications, PDPU Gandhinagar, 19 November 2016
- Indian Women and Mathematics, Regional Workshop on Research and Career Opportunities, IIT Gandhinagar, 20-21 December, 2016
- Second State Level Multidisciplinary Symposium, SOCET Ahmedabad, 22-24 December 2016
- ACM-India Summer School on Graph Theory and Graph Algorithms, IIT Gandhinagar, 26 June - 15 July, 2017

#### **Yash M. Vasavada**

- Short Term Training Programme on Advanced Engineering Optimization through Modern Computing Techniques, Seminar on Machine



Learning Algorithms, S. V. Patel College of Engineering, Unjha, 7 December 2016.

- Short Term Training Programme on Wireless Sensor Networks and Applications, Seminar on Wireless Sensor Networks, BVM Engineering College, Vallabh Vidyanagar, 19 December 2016.

## CONFERENCE/WORKSHOP SESSION CHAIR/PARTICIPATION

### Anish Mathuria

- Eighteenth International Conference on Distributed Computing and Networking, Hyderabad, 5-7 January 2017.

### Arnab Kumar Ray

- World of Mathematical Modelling, Institute of Advanced Research, Gandhinagar, 12-13 April 2017

### Amishal Modi

- Sexual Anomie in Raj Kamal Jha's 'She Will Build Him a City,' at the conference on The Fear, Horror and Terror Project, 10th Global Meeting, Mansfield College, Oxford, UK, 9-11 September 2016

### Gagan Garg

- Faculty Development Program on Cryptography and Algebraic Coding Theory, Dr. APJ Abdul Kalam Technical University at Indraprastha Engineering College, Sahibabad, Ghaziabad, 14-18 March 2017

### Hemant A. Patil

- Winter School on Speech and Audio Processing, Theme: Spatial Audio, Indian Institute of Science, Bangalore 26-29, January 2017
- Workshop on Brain, Computation and Learning, Indian Institute of Science, Bangalore, 9-13 January 2017
- GTCx NVIDIA Conference, 6 December 2016

### Manish Kumar Gupta

- Start-up Action Seminar, Vibrant Gujarat Global Investors Summit, Ahmedabad, January 2017
- US-India Advanced Studies Institute: Classical and Quantum Information, International Centre for Theoretical Sciences, Tata Institute of Fundamental Research, Bangalore, 26 December 2016 - 7 January 2017

- Invited Speaker, Algebraic and Computational DNA Codes, National Conference on Discrete Mathematics and Graph Theory XIII, June 2017
- Sustainable Technologies for Clean Energy: Challenges and Opportunities, Gujarat Science Congress, PDP, Gandhinagar, 5 February 2017
- The Art of DNA Strings: Data Storage, US-India Advanced Studies Institute: Classical and Quantum Information, International Centre for Theoretical Sciences, Tata Institute of Research, Bangalore, 2 January 2017
- The Art of DNA Strings, International Symposium on Computational Biology and DNA Computing, Gujarat State Biotechnology Mission, Department of Science and Technology, Government, of Gujarat & DA-ICT 26 November 2016.

### Puneet Bhateja

- Tenth Innovations in Software Engineering Conference, Jaipur, 5-7 February 2017

### Laxminarayana Pillutla

- IEEE COMSNETS 2017, Bengaluru, Karnataka, 2017

### Minal Bhise

- IEEE TENSYP, Kochi, Kerala, 14-16 July 2017
- Education Conclave, Government of Gujarat, India, 18 October 2016

### Rahul Muthu

- Fifth India-Taiwan Conference on Discrete Mathematics, Taipei, Taiwan, 18-21 July 2017.
- ADMA Workshop, Chennai, India, 8-10 June 2017.

### Rutu Parekh

- Jointly with M. S. Baghini and B. Rajendran, Modeling and simulation of 1/f noise during threshold switching for Phase Change Memory, Lecture Notes in Electrical Engineering, First International Conference on Advanced Computational and Communication Paradigms, Sikkim Manipal Institute of Technology, India, 08-10 September 2017
- Jointly with A. Mishra, Noise removing filters and its implementation on FPGA, Lecture Notes in Electrical Engineering, First International Conference on Advanced Computational and

Communication Paradigms, Sikkim Manipal Institute of Technology, India, 08-10 September 2017.

- Visual TCAD Workshop, DA-IICT, Gandhinagar, 4 February 2017.

#### **Sanjay Srivastava**

- IEEE TENSYPMP, Kochi, Kerala, 14-16 July 2017

#### **Sanjeev Gupta**

- International Conclave on Higher Education: Quality, Governance and Innovation, Mahatma Mandir, Gandhinagar, Gujarat, 18 October 2016.
- Expert Lecture, Challenges and Design Issues in RF and Microwave Engineering, Recent Advances in RF and Microwave Engineering, EC Department, LD College of Engineering, Ahmedabad, 24 November 2016
- Invited Talk, RF and Wireless Design, Short Term Training Program on Recent Trends in Engineering and Technology and its Impact on Academic Reforms, Government Engineering College, Gandhinagar, Gujarat, 19-30 December 2016
- Invited Talk, What and Why of Research, Research Orientation Programme, Nirma University, Ahmedabad, 5-17 June 2017
- Organising Committee Chair, 5-day Summer School on Cyber Physical Systems - Theory and Applications, DA-IICT, Gandhinagar, 8-12 April 2017
- Organising Committee Chair, two day NTU-India connect and DA-IICT Workshop on Data Science, DA-IICT, Gandhinagar, Gujarat, 21-22 July 2017

#### **Sourish Dasgupta**

- Forum for Information Retrieval Evaluation, ISI, Kolkata, India, 7-10 December 2016

#### **V. Sunitha**

- Indian Women and Mathematics Regional Workshop on Research and Career Opportunities, IIT Gandhinagar, December 20-21, 2016

#### **Yash M. Vasavada**

- IEEE International Conference on Advances in Computing, Communications and Informatics, Jaipur, 21-24 September. 2016.

## **CONFERENCE PROGRAM COMMITTEE**

#### **Anish Mathuria**

- Program Committee Member, Ninth Annual ACM India Conference (Compute), Gandhinagar, 21-23 October 2016

#### **Hemant A. Patil**

- Chair, Organizing Committee, Summer School, Speaker and Language Recognition, DA-IICT Gandhinagar, 08-12 July 2017
- Technical Program Committee Member, International Conference on Speech and Computer, Hatfield, UK, 12-16 September, 2017
- Program Committee Member, WiSSAP 2017, Indian Institute of Science, Bangalore, 26-29 January 2017
- Program Committee Member, FIRE'16, ISI Kolkata, 08-10 December 2016

#### **Kalyan Sasidhar**

- Eighth International Conference on Computing, Communication and Networking Technologies, IIT Delhi, Delhi, 3-5 July 2017

#### **Manish Kumar Gupta**

- Coordinator, Organizing Committee, GSBTM workshop on Computational Biology and DNA Computing, DA-IICT, 26 November 2016

#### **Manik Lal Das**

- Member, Technical Program Committee, International Conference on Smart Systems, Innovations and Computing, Jaipur, 2017
- Member, Technical Program Committee, International Conference on Soft Computing and its Engineering Applications, Vadodara, 2017
- PhD Conclave Co-chair: ISEA ASIA Security & Privacy Conference, Surat, 28 January-1 February 2017
- Member, Technical Program Committee, International Conference on Mathematics and Computing, Haldia, 17-21 January 2017
- Member, Technical Program Committee, International Conference on Distributed Computing and Internet Technologies, Bhubaneswar, 13-18 January 2017
- Member, Technical Program Committee, International Conference on Information Systems Security, Jaipur, India, 16-20 December 2016



### **Rutu Parekh**

- Member, Technical Program Committee, International Conference on Computer Networks and Communication Technology, Guangzhou, China, 15-17 December 2017
- Member Program Committee, first International Conference on Advanced Computational and Communication Paradigms, Sikkim Manipal Institute of Technology, Sikkim, 08-10 September 2017.
- Member, Technical Program Committee, second International Conference on Computer Science and Artificial Intelligence, Suzhou, China, 19-21 May 2017
- Member, Technical Program Committee, International Conference on Electronic Industry and Automation, Suzhou, China, 23-25 June 2017
- Member, Technical Program Committee, International Conference on Applied Mathematics, Modelling and Statistics Application, Beijing, China, 21-22 May 2017
- Member, Technical Program Committee, second International Conference on Advanced Electronic Science and Technology, Xiamen, China, 14-16 July, 2017
- Member, Technical Program Committee, International Conference on Energy, Power and Environmental Engineering, Shanghai, China, 23-24 April 2017
- Member, Technical Program Committee, second International Conference on Modelling, Simulation and Applied Mathematics, Bangkok, Thailand, 26-27 March 2017
- Member, Technical Program Committee, third Annual International Workshop on Materials Science and Engineering, Guangzhou, Guangdong, China, 8-10 September 2017
- Member, Technical Program Committee, International Conference on Mechanical Design and Electronic Engineering, Guilin, China, 18-20 August, 2017
- Member, Technical Program Committee, International Conference on Environmental Science and Energy Engineering, Beijing, China, 15-16 January 2017
- Member, Technical Program Committee, International Academic Conference on Computer,

Networks and Communication Technology, Xiamen, China, 16-18 December 2016

- Member, Committee for the Grace Hopper Celebration of Women in Computing, Houston, Texas, 19-21 October 2016.
- Program Committee Member, World Congress on Mechanical and Electrical Engineering, Jinan, China, 25-26 October 2016
- Member, Technical Program Committee, International Conference on Advanced Manufacture Technology and Industrial Application, Chiang Mai, Thailand, 25-26 September 2016
- Member, Program Committee, International Conference on Electrical Engineering and Industrial Engineering, Shanghai, China, 11-12 December 2016

### **Suman K. Mitra**

- Member, Program Committee, International Conference on Advances in Pattern Recognition, Indian Statistical Institute, Bangalore, December 2017
- Member, Technical Review Committee, International Conference on Pattern Recognition and Machine Intelligence, Indian Statistical Institute, Kolkata, December 2017
- Member, Program committee, International Conference on Computer Vision, and Image Processing, Indian Institute of Technology, Roorkee, September 2017
- Member, Program Committee, Indian Conference on Vision, Graphics and Image Processing, Indian Institute of Technology, Guwahati, December 2016

### **Sanjeev Gupta**

- Member, Technical Committee, International Conference on Computers, Communication and Computational Sciences, Aryabhatta College of Engineering and Research Centre, Ajmer, 12-13 August 2016
- Member, Advisory Committee, Short Term Training Program, Recent Trends in Engineering and Technology and its Impact on Academic Reforms, Government Engineering College, Gandhinagar, Gujarat, 19-30 December 2016
- Member, National Advisory Council, International Conference on Technology and Management,

Sankalchand Patel College of Engineering, Visnagar, Gujarat, 17-18 February 2017

- Member, National Advisory Council, Fifth National Conference on Innovations and Emerging Technologies, Smt SR Patel Engineering College, Unjha, Mehsana, Gujarat, 27-28 May 2017
- Chair, Organising Committee, Five day Summer School on Cyber Physical Systems - Theory and Applications, DA-IICT, Gandhinagar, 8-12 April 2017
- Chair, Organising Committee, Two Day NTU-India connect and DA-IICT Workshop Data Science, DA-IICT, Gandhinagar, 21-22 July 2017

## SPONSORED RESEARCH PROJECTS

### Anish Mathuria

- Co-Principal Investigator, Study of Privacy, Accountability and Ownership in IoT. Sponsor: DST, Indo-French Centre for Promotion of Advanced Research (CEFIPRA)

### Bhaskar Chaudhury

- Kinetic Modeling of Large size Negative Ion Sources for Fusion Application using Emerging Parallel Processing Computer Architectures, Government sponsored Project, funded by Department of Atomic Energy/Board of Research in Nuclear Sciences
- NSF/TCPP CDER Center, Early Adopter proposal: NSF/IEEE-TCPP Curriculum Initiative on Parallel and Distributed Computing, High Performance Computing for Computational Science at DA-IICT, project funded by the National Science Foundation, USA
- Establishing nVIDIA GPU Research Center at DA-IICT, funded by nVIDIA Corporation, USA

### Biswajit Mishra

- Development of Ultra Low Power and Low Voltage Time to Digital Converter (TDC) for Space Applications, Space Application Centre, ISRO, Ahmedabad (RESPOND Program)
- Establishment of Design Lab, GUJCOST, Department of Science and Technology, Government of Gujarat

### Deepak Ghodgaonkar

- Development of Microwave Absorber (Carbonyl

Iron Filled Silicon Rubber Sheets) in 1 to 8 GHz range, funded by Space Application Centre, ISRO, Ahmedabad (RESPOND Program) with Prof. Sanjeev Gupta

- Ultra Wide Band Dielectric Resonator Antennas, funded by Space Application Centre, ISRO, Ahmedabad (RESPOND Program), with Prof. Sanjeev Gupta

### Hemant A. Patil

- Chief Investigator, 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. Consortium Project (TTS Phase II). Funded by Department of Electronics and Information Technology, Ministry of Communications & Information Technology, Government of India
- Development of Infant Cry Analyzer using Source and System Features. Funded by Department of Science and Technology, Government of India, Scheme: DST FAST TRACK SCHEME FOR YOUNG SCIENTISTS
- Speech-Based Access of Agricultural Commodity Prices and Weather Information in 11 Indian Languages/Dialects. Consortium Project (ASR Phase II). Funded by Department of Electronics and Information Technology, Ministry of Communications & Information Technology, Government of India
- Co-investigator, India Digital Heritage (IDH) – A DST Initiative. Funded by Department of Science and Technology, Government of India, New Delhi

### Manoj Kumar Raut

- Knowledge Compilation in Modal and Multi-modal Logic, funded by National Board for Higher Mathematics, Department of Atomic Energy, Mumbai

### Manik Lal Das

- Study of Privacy, Accountability and Ownership in IoT, funded by Department of Science and Technology, Government of India, under Indo-French Collaborative Research Programme under DST-INRIA-CNRS Targeted Programme

### Sanjeev Gupta

- Ultra Wideband Dielectric Resonator Antenna, funded by SAC-ISRO, Department of Space,



Government of India with Prof. Deepak Ghodgaonkar

- Development of Microwave Absorbers (Carbonyl Iron filled Silicon Rubber Sheets) in 1 to 8 GHz Range, funded by SAC-ISRO, Department of Space, Government of India with Prof. Deepak Ghodgaonkar

## VISIT TO INSTITUTES/ INDUSTRIES

### Hemant A. Patil

- Indian Institute of Science, Bangalore. Attended the meeting on INTERSPEECH 2018 and promotion of S4P, DA-IICT, 08-12 July 2017
- GH Rasoni Institute of Engineering and Management, Jalgaon, Maharashtra and Attended meeting for BOS, and RAC, 10-11 March 2017
- Nirma University, Ahmedabad, as Research Progress Committee Member on 24 November 2016
- Gujarat Technological University, Ahmedabad as Expert Professor to review the work of PG students, 26 March 2017
- Indian Institute of Information Technology, Vadodara as visiting faculty during autumn 2016 to teach a BTech, core course on System and Signal Theory
- Indian Institute of Information Technology, Vadodara as Visiting Faculty, to teach a BTech, science elective course on Speech Science and Technology during winter 2017

### Manish Kumar Gupta

- International Centre for Theoretical Sciences, TIFR, Bangalore, December 2016

### Manjunath Joshi

- National Board of Accreditation Expert, Amal Jyoti College, Kerala, 10-12 March 2017
- National Board of Accreditation Expert, K.L.N College of Engineering Madurai, Tamilnadu, 7-9 October 2016

### Minal Bhise

- External Expert on PhD Evaluation Committee at Nirma University for two Doctoral Scholars

### Rutu Parekh

- Inter-University Centre for Astronomy and Astrophysics, Pune

### Sanjeev Gupta

- Twelfth Board of Studies meeting, EC Department of Electronics and Communication Engineering, Charotar University of Science and Technology, Changa, Gujarat, September 3, 2016
- Faculty Board meeting, Charotar University of Science and Technology, Changa, Gujarat, 3 Sept. 2016
- Governing Council meeting of Gujarat Industrial Research and Development Agency (GIRDA), Vadodara, 22 Sept. 2016
- Eleventh Board of Governors meeting of Government Engineering College, Gandhinagar, 10 Oct. 2016
- International Conclave on Higher Education Quality, Governance and Innovation, Mahatma Mandir, Gandhinagar, Gujarat, 18 Oct 2016
- External Expert of the Selection Committee for faculty selection, Department of Electronics and Communication Engineering, Charotar University of Science and Technology, Changa, Gujarat, 19 Oct. 2016
- External Expert of SAC Promotion Interview Committee (Scientist-SC to Scientist-SD), Space Applications Centre (SAC), Department of Space, Govt. of India, Ahmedabad, 25 Nov. 2016
- Board of Governors meeting, IIIT Vadodara at Mumbai, 1 Dec. 2016
- PhD Synopsis Examination, Gujarat Technological University, Ahmedabad, 3 Dec. 2016
- First Senate meeting of IIIT Vadodara, 17 January 2017
- Departmental Research Committee (DRC) meeting in Electronics and Communication Engineering, Institute of Technology, Nirma University, Ahmedabad, 9 Feb. 2017
- External Expert of the Selection Committee for selection of Associate Professors, Department of Electronics and Communication Engineering,

Institute of Technology, Nirma University, Ahmedabad, 15 February 2017

- PhD Thesis Examination at Narsee Munjii Institute of Management Sciences, University of Mumbai, Mumbai, 17 March 2017
- Thirteenth Board of Governors meeting of Government Engineering College, Gandhinagar, 18 March 2017
- External Expert of the Selection Committee for selection of Assistant Professors, Department of Electronics and Communication Engineering, Institute of Technology, Nirma University, Ahmedabad, 28 March 2017
- Fiftyninth Governing Council meeting of Gujarat Industrial Research and Development Agency, Vadodara, 17 April 2017
- Reviewer of MTech Dissertations, Charotar University of Science and Technology, Changa, Gujarat, 29 April 2017
- External Expert of SAC Promotion Interview Committee (Scientist-SC to Scientist-SD), Space Applications Centre, Department of Space, Government of India, Ahmedabad, 2 June 2017
- PhD Scholar Public *viva-voce* examination, Gujarat Technological University, Ahmedabad, 3 June 2017
- Third Board of Governors meeting of IIIT Vadodara at Mumbai, 20 June 2017
- Review Member, Research Progress Committee, Subject Expert for evaluation of PhD Student of Nirma University, Ahmedabad, 29 June 2017

#### V. Sunitha

- Charotar University of Science and Technology, Changa, Gujarat, September 2016

## CONSULTANCY WORK

### Anil K. Roy

- Anil K. Roy (Project Investigator), Sanjay Srivastava (Co-Project Investigator), Certification Testing for Smart City, Gandhinagar, 2016-17. Sponsoring Organization: (n)Code Solutions - a division of Gujarat Narmada Valley Fertilizers Chemicals Ltd., Ahmedabad.

### Yash M. Vasavada

- Design of an Enhanced Burst Demodulator, Sponser: Space Application Centre, Indian Space Research Organisation, Ahmedabad

## AWARDS/HONOURS

### Bhaskar Chaudhury

- Research paper titled "Accelerated Fluid Simulation of Low Temperature Plasmas on Intel Xeon Phi MIC Architecture" authored by Henil Shah, Anurag Gupta, Saumya Bhadani and Prof. Bhaskar Chaudhury received the Best Poster Award at the 23rd IEEE International Conference on HPC, Data and Analytics (HiPC, 2016), Hyderabad

### Kalyan Sasidhar

- Hardware project selected as top 10 IoT ideas "WalkSense: A Wearable device for detecting gait abnormalities," by MAMax Integrated Solutions

### Saurabh Tiwari

- Received Early Career Research Award from Science and Engineering Board, Department of Science and Technology, Government of India for a two year project



## ANY OTHER SIGNIFICANT CONTRIBUTIONS

### Hemant A. Patil

- Developed a state-of-the-art Speech Signal Processing Laboratory of International standard at DA-ICT Gandhinagar. The Laboratory is equipped with high performance computing servers, and personal computers. In addition, the Laboratory is equipped with LDC Speech Corpora.
- Contribution to manpower training and resource building: With the support from sponsored projects and DA-ICT Gandhinagar, trained 7 PhD. scholars, 37 Masters Students and 10 BTech. Students, 5 temporary consultants, 1 data entry operator and 1 visually challenged person.
- Linked Speech Lab at DA-ICT to ISCA Speech Labs (across the world) website. This is the first Speech Laboratory from India linked to ISCA Speech Laboratories.

- Principal Investigator/Co-Principal Investigator for five Central Government funded sponsored projects.
- Overall coordination of developing DST FIST Proposal
- Proposed a new M. Tech. (ICT) program with specialization in Signal Processing. Also working as the Coordinator for M.Tech. (ICT) with specialization in Signal Processing.

### Sourish Dasgupta

- Cofounder and CEO of Rygbee

### Deepak Ghodgaonkar

- Member, Research Promotion Committee, DA-ICT from 23 June 2016
- Member - MTech Curriculum Review Committee, DA-ICT, 2016



## Faculty and Staff Updates

### FACULTY

The faculty consisted of regular faculty, adjunct faculty on full time on 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 2016-17:

1. K S Dasgupta joined as Director, on 17 July 2017
2. Arnab Kumar Ray joined as Associate Professor, on 26 December 2016
3. Amit Mankodi joined as Adjunct Faculty, on 02 January 2017
4. Lavneet Singh joined as Adjunct Faculty, on 31 January 2017
5. Santanu Koley joined as Assistant Professor, on 14 July 2017
6. Sarita Agrawal joined as Faculty Associate, on 17 July 2017
7. Manish Khare joined as Assistant Professor, on 31 July 2017

#### Faculty Resignation

1. Srikrishnan Divakaran, Associate Professor, on 15 December 2016
2. Aditi Nath Sarkar, Associate Professor, on 31 December 2016
3. R Nagaraj, Director, on 21 July 2017

### STAFF

#### New Staff

1. Abhishek Jani joined as Assistant Laboratory Superintendent, on 01 September 2016
2. Manish Mankad joined as Librarian, on 12 October 2016
3. Vishal Pratap Singh joined as Sports Officer, on 30 November 2016
4. Sujani Shah joined as Incubation Assistant, on 06 March 2017
5. Mukesh Shrimali joined as Library Attendant, on 01 May 2017
6. Darshan Prajapati joined as Hardware & Network Engineer, on 17 July 2017
7. Priyank Santola joined as Hardware & Network Engineer, on 17 July 2017

#### Staff Resignation

1. Vipul Banker, Library Assistant, on 31 August 2016
2. Alpesh Sathwara, Manager-IT [DCEI], on 21 March 2017





## Student Activities and Achievements

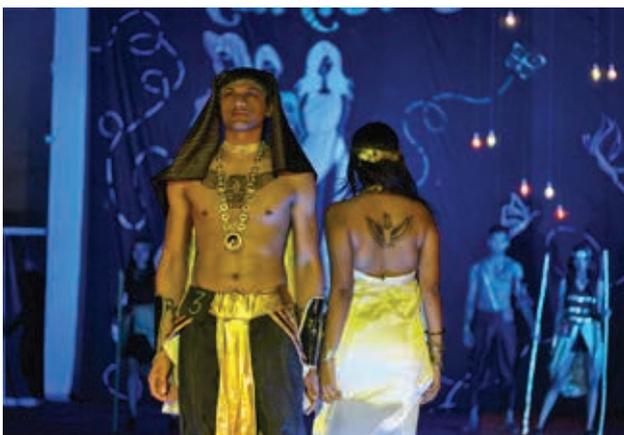
The students plan, organize and enjoy a rich array of activities on campus encompassing cultural, social and educational contents through student's bodies and clubs. They range from music concerts, theaters, folk and classical dances to coding, educational and professional competitions. The Student Body Government (SBG), an elected body of the students consisting of 7 Committees and some 15 Student Clubs, provide leadership to these activities. The Institute of Electrical and Electronic 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 correlates with skills and attributes that employers are seeking of our graduates.

### STUDENT ACTIVITIES

#### Cultural Committee

##### Cultural Weekend (13-14, August)

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 backside. 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 among the students. 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 the 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 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)

Celebration of all festivals is the speciality of 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. Campus had its share of celebrations on 5th 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 victory of good over evil. The play was specifically directed by sophomores and the actors were mostly the freshers. It served as 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)**

The most celebrated festival fell during the semester break. 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 a 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 an intra 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 basically 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)**

Inter-hostel wing tournaments were organized by the Sports Committee. 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 in the beginning of the semester so that the new batches could showcase their talent and meet the seniors of similar talent.





### **Concours 2016: Annual Sports Festival - (10-13, November)**

Concours is recognised 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 worked as an interface between administration and hostel inmates in keeping the hostels clean and to encourage cleanliness among hostels. The HMC members visited the rooms, floors and evaluated them on the basis of 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 2017, on 22nd January, 2017, to demonstrate their support to programs that lead to betterment of society. It is a great display of what they are passionate about. The Youth Run 2017 highlighted 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 play back 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 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 actually 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 is directed by the second year students. This year's play was a treat as 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.

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

The sensitization play was performed specially for freshers to sensitize them about gender discriminations 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

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 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 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 basic information about the board and its applications. They were briefed on 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 the explanation about the working and applications of ultrasonic sensor and its different pins. The students developed the code for displaying the distance of the object placed in front of sensor. The workings of temperature sensor were explained and were made to write the code for reading sensor values and displaying those on 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 transmitter, IR sensor and receiver IR sensor both connected to different arduino boards. The transmitted string of characters were displayed on the serial monitor with the help of 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 display of their names on the LCD.

### Manual Robotics Workshop (1 November)

The workshop catered to the groups of 5 entrants who got to take robokits containing a Bluetooth module, an Arduino, a set of motors, a castor wheel, 2 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 became familiar with the Raspberry Pi board on getting 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 were explained the working and applications of Raspberry Pi board and its different pin configuration. The students wrote the code for a Traffic Light simulation. A few students even came up



with many innovative ideas through their knowledge of electronics and made projects using minimised hardware materials. Three winners received the cash prizes.

### **Workshop on Hostel Automation (10-11 February)**

The workshop catered to groups 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 musical 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 Farhan

Ansari, MSc (IT) second year student. The Students participated 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 learnt 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. The session was conducted by club members. 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 2016 (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 variety of technical as well as non technical activities.

### **STUDENT ACHIEVEMENTS**

Research paper titled "Accelerated Fluid Simulation of Low Temperature Plasmas on Intel Xeon Phi MIC Architecture" authored by BTech (2013 batch) students Henil Shah, Anurag Gupta, Saumya Bhadani and Prof. Bhaskar Chaudhury received the Best Poster Award at the 23rd IEEE International Conference on HPC, Data Analytics (HiPC, 2016).

In a competition held on Hackerrank to determine the best Universities in terms of coders, students from DA-IICT gave a great performance. Over 5,500 students from 126 Institutions from around the world participated in the event. DA-IICT stood as the 3rd best Institute in India and 11th best in the world in terms of active best coders.

Tejasv Gupta secured 398th rank in the world in the pre-final round of Google Distributed Code Jam. He is one of the two Indians who reached the semi-final round in both the tracks.

Sumeet Varma secured 3rd rank in India and 189th rank in the world in the pre-final round of Google Code Jam.

Tejasv Gupta secured 7th rank in India and 294th rank in the world in the Pre-Final round of Google Code Jam.

The following teams of DA-IICT under the guidance of Professor Bhaskar Chaudhury have stood second and third at the HiPC Student Programming Challenge which is a national level parallel programming competition organized for students enrolled in Indian Universities as a part of High Performance Computing (HiPC) Conference 2016:

- Yashwant Keswani and Akshar Varma, BTech 2013 batch students (second)
- Keval Shah, Abhi Shah and Parshwa Shah, Btech 2014 batch students, (third)

Sumeet Verma and Kuldeep Patel, BTech fourth year students and Yash Kumar, BTech, third year student stood second in Hackerearth Collegiate Cup, whose final round was held at Bangalore. Top

15 institutions in India were shortlisted based on 3 online elimination rounds.

Five DA-IICT students were shortlisted for Sears Dots and Arrows - Hackerrank through online eliminations. Sumeet Varma, BTech fourth year student, won the third rank and a cash award of Rs 1 lakh and Yash Kumar, BTech third year student, won the ninth rank and an iPad.

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

Tejasv Gupta and Sumeet Varma were selected for the Booking.com Passions Hacked on-site Hackathon held at Booking.com HQ i.e. Amsterdam, Netherlands during 13-15 October 2016. In order to qualify, they had to solve 6 algorithmic problems and also one open ended question in their respective categories. Tejasv Gupta - 5th rank in World (Mobile Codesprint) and Sumeet Varma - 15th rank in World (Backend Codesprint). The contest was open for people of all age groups. Overall 50 people from all over the world inclusive of all the three categories i.e Backend, Frontend and Mobile were invited for the on-site event.

Ms. Lavanya Gupta, BTech 2012 batch student, received TCS best student Award from Shri Anomitra Das, Regional Head HR, TCS, in a function held at DA-IICT on 13 September 2016.

Sahil Jain, Ankit Muchhala and Kushan Joshi bagged the first prize at the InOut Hackathon, Surat.

Eleven students were selected as interns for various mentoring organizations of Google Summer of Code 2016 under the Google umbrella.

Ms. Bhavika Bathiya, M.Tech student, received the best paper award at ACM WIECON-ECE 2016. The paper is based on her thesis which was guided by Profs. Sanjay Srivastava and Biswajit Mishra.

Ms. Nidhi Vyas, BTech Student, was selected for BTech project by the Center for Language and Speech Processing, Johns Hopkins University, U.S.A Sarita Agrawal, PhD Scholar, has earned the 'Best Paper Award (PhD Forum Track)' from the IEEE





Advanced Networks and Telecommunications Systems (ANTS) 2016.

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

Yash Kumar and Karan Thakkar, BTech third year students, secured runners up position at Tata Consultancy Services, Codevita, 2016. This event was held at TCS Siruseri Campus, Chennai, where 15 teams selected from all over India have participated.

Sumeet Varma, Kuldeep Patel and Yash Kumar, BTech. students, Team FruitSalad has qualified for ACM-ICPC World Finals for the first time. They stood 1st in Kharagpur Regionals and 2nd in Kolkata Regionals and represented India alongside 6 other top teams at the World Finals in United States in May 2017.

Malvika Singh, BTech student batch was selected for PennApps XV, an application development competition held at Penn Engineering, University of Pennsylvania during 20 to 22 January 2017.



Omkar Damle, BTech student was selected for Viterbi-India Program.

Nirmesh J. Shah, PhD Scholar, received a travel grant of 1000 US dollars from IEEE to attend a conference at ICASSP 2017, New Orleans, USA.

Team Epsilon-42, Music Club bagged second runner-up prize of the Indian Rock event held at Birla Institute of Technology, Goa.

At IIM-A's Sports Fest, Shaurya (October 20 2016), the Cricket Team finished at Runner's Up position. Football (Boys), Volleyball (Boys), Lawn Tennis, Table Tennis (Boys), Badminton (Girls), Chess and Carom teams reached the semi-finals.

The Volleyball team stood runners up in the sports fest of Gujarat National Law University, 'Justice League', 2017.

The Volleyball team bagged the first position in the sports fest of National Institute of Fashion Technology, Spectrum, 2017.

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 Mime Team bagged the second prize in the Mime competition held during Flare'16 at Pandit Deendayal Petroleum University, Gandhinagar.

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.

Music Club bagged the first prize in the Livewire/ Battle of the bands event at Spectrum, NIFT.

## Alumni Activities and Achievements

The present membership of Alumni Association is confined to graduates of the Institute numbering 4500. They are spread across all over the country and abroad. They visit the campus regularly and interact with faculty and the students and share their professional experience and achievements. A good number of alumni representing the companies in which they work visited the campus and recruited their juniors during the placement drive 2017.

During the reporting period, the Association has initiated necessary steps to register it as a separate

legal entity in the form of a Society with the guidance of Professors Sanjay Srivastava and Anil Roy. A group of them, namely, Anish Goel (2016 batch), Vinod Kumar Mall (2015 batch), Anupama Panchal (2014 batch), Nikunj Thakkar (2014 batch), Swapnil Khandelwal (2011 batch), Tanu Jindal (2010 batch) and Jyotiraditya (2007 batch), have volunteered to be signatories to the Memorandum of Association and members of the first Executive Committee of the registered Association. Professor Sanjay Srivastava is the Convenor, Alumni Board, and Prof. Anil Roy represents the faculty on the Board.





## Resource Centre

The Resource centre (RC) had a memorable year for its outreach efforts, creative resource planning and IT-enabled user services. RC successfully tackled the challenges of migrating to new online public access catalogue, reducing the number of physical journals, improving the user services, and collaborating with external partners for knowledge sharing.

### Library is a growing organism

The pace of adding the books and other reading material got enhanced by allocating separate budget for each faculty as well as reminding the student community to share their book purchase requirements.

Aligning to the global clues, RC migrated majority of its scientific journals onto an electronic space thereby reducing the delivery time and also releasing some storage and shelving space. This move mitigated the tracking of the missing issues and ensured timely access to the rest of the periodicals. This led to an overall 25 to 75 % increased usage during reporting period as compared to the usage during the previous periods.

A physical verification of the library stock was done to trace out the missing volumes which were found to be well within the prescribed limits.

The RC collection as on 31st July 2017

Collection Type	Added during 2016-17	Total as of 31-Jul-2017
<b>Books</b>	231	30957
<b>E-books</b>	1602	12093
<b>CDs/DVDs &amp; AV Collection</b>	132	3940
<b>Theses &amp; Dissertations</b>	76	625
<b>Bound Volumes of Journals</b>	332	2671

### The Library for its users

The users being at its core for the RC, a quick survey captured their key requirements to improve the RC services. While the majority of these requirements have been fulfilled and the remaining are being examined for their feasibility.

A special 'visibility' drive was launched to bring users' focus onto 'less used' collection. A regular thematic display of books from the RC has also improved the usage of these documents.

The RC staff successfully moved its online catalogue onto KOHA, free open access software. It included data migration from the existing software, integration and verification of users' data, installation of the software on the server, testing out all the functionalities including front and backend operations. Most importantly, the design of the search interface was kept simple and clutter-free that was much appreciated by the user community.

### Library as a social institution

The RC has the memberships of some of the key professional institutions such as Ahmedabad Management Association (AMA), American Society of Agricultural and Biological Engineers (ASABE), British Library, Ahmedabad, Computer Society of India (CSI), International Telecommunication Union (ITU), UGC-Infonet Digital Library Consortium, among others.

The mutual resource sharing continued between some of the key partners such as Indian Institute of Technology, Gandhinagar, Indian Institute of Management, Ahmedabad, Physical Research Laboratory, Space Application Centre, and Entrepreneurship Development Institute of India.

These co-activities not only helped us control some of the document delivery costs but also learn and share many areas of professional expertise and skills.

The project/theses reports of postgraduate students and Doctoral Scholars from DA-IICT are now available on the National Digital Library of India, an initiative of the Ministry of Human Resource Development. The Shodhganga project of INFLIBNET continues to host these internal publications since last year.

### Visitors

1. Thirty students and 3 faculty members of the Department of Library and Information Science of the Sardar Patel University, Anand, on 16 March 2017
2. A study visit by 15 students and 4 faculty members of the Department of Library and Information Science of the Central Gujarat University, Gandhinagar, on 29 March 2017.
3. International College of Surat with its 65 students and the faculty had an educational tour of the campus including the Resource Centre on 24 July 2017

The following professionals visited RC and had shared their knowledge and experience with the RC Staff:

1. Anju Govindani, Pidilite Industries, Mumbai
2. K.K. Lal and Praveen Kapoor, University of Petroleum and Energy Studies, Dehradun
3. Satish Kanamadi, Tata Institute of Social Sciences, Sir Dorabji Tata Memorial Library, Mumbai
4. S.B. Patil, Karnatak University, Dharwad

### Honours and Achievements:

- Manish Mankad and Prasanna Kumar Muduli attended a three day International Conference on the Changing Landscape of Science and Technology Libraries organized by IIT-Gandhinagar during 2-4 March 2017. Manish Mankad presented a paper on 'How to manage stress' and also chaired one session.
- Prasanna Kumar Muduli and Shashikumara AA participated in 'E-Content 2016 - Ahmedabad Chapter' held at Ahmedabad on 22nd November 2016, organized by Informatics Publishing Limited, Bengaluru.





# Infrastructure

## ICT INFRASTRUCTURE

DA-IICT has modern, eco-friendly, fully networked campus with 1Gbps Internet link from National Knowledge and 10Gbps Server-farm connectivity. Campus LAN infrastructure with 1Gbps optical fibre cable connectivity between various buildings with four L3 Manageable switch and around 75 L2 manageable/unmanageable network switches to serve around 3000 + campus wide network nodes. Wireless network setup consists of 85 access points spread at various campus locations with management at a centralized location using Ruckus 1100/1200 series zone controllers.

There are around 1150 Desktop PCs and 50 Laptops deployed on campus. The Institute uses open source online learning management for course content hosting and submission of assignment. DA-IICT has its own Datacentre with 30 servers and with 10G switches for server farm to provide various IT services like Email, Web hosting, Files sharing and Software license management, Campus Management, Imaging of PCs, HPC Cluster and other services. The consolidation and virtualization techniques are used to reduce the power requirements.

IT Helpdesk Team consisting of four trained engineers is single point of contact for all users to gain assistance in troubleshooting, get answers to queries, and resolve problems. The Institute has also trained technical Laboratory staff and Teaching Assistants to support students and faculty to perform various experiments in Laboratories.

The strengthening of ICT infrastructure supportive to teaching and research has always been a priority for the Institute. During the reported period; the Institute acquired additional ICT resources worth over Rs. 2.0 crore. They included the high-end Desktop Computers, high-end servers, network attached storage and laboratory equipment.

The Information and Communication Technology (ICT) Committee oversees the IT infrastructure management.

## Laboratory Infrastructure

The Laboratory building houses state-of-the-art teaching and research Laboratories with equipment such as sensors, components for electronics and communication, digital logic design, DSP, RF, IT, networks, CS and HPC, IoT, VLSI, engineering design workshop as well as audio-visual facility. Computers are installed with 1Gbps backbone network connectivity with intranet and internet access. Students use resources at the Laboratories to perform developmental experiments and work on projects. The Laboratories provide extensive facilities for research to be carried out by them as well as for events such as workshops and conferences.

During the reporting year, tools, equipment and software valuing Rs. 77.75 lakh were added to the Laboratories.

## Campus Infrastructure

During the reporting year, the Maintenance Section of the Institute undertook a number of renovations and up-gradation work of campus buildings and facilities. The notable among them were the following:

- Completed renovation of Lecture Theater 3.
- Created facilities to set up a new Engineering Design Laboratory.
- Created additional space of 140 sq. meters for start-ups having fully air-conditioned 8 cabins with furniture and fixtures.
- Renovated washrooms of G and H wings of men's hostel, J and K Wings of women's hostel and food courts.
- Developed a spacious room for the new Gymnasium in Student Activity Centre.
- Set up of a Crèche and constructed a room in the administration block to use as rest room for support staff.
- Installed a commercial RO water plant of 80 litre capacity in CEP building.
- To save energy, replaced (a) 250 watt HPSV light fixtures with new 80 watt LED light fixtures of campus street lights, (b) 36 watt TL fixtures with new 8 watt LED fixtures in all the washrooms of the hostels, and (c) with LED fixtures in food courts and other buildings.

## 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 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 Programs), 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 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. Sanjeev Gupta, Member	Dean (Research & Development), DA-IICT, Gandhinagar
Prof. Asim Banerjee, Member	Convenor, Placement Committee, DA-IICT, Gandhinagar
Prof. Anil K Roy, Member	Convenor, Undergraduate Committee, DA-IICT, Gandhinagar
Prof. Hemant A Patil, Member	DA-IICT, Gandhinagar



Prof. P M Jat, Member	Coordinator, MSc (IT) Program, DA-IICT, Gandhinagar
Prof. Madhumita Mazumdar, Member	Coordinator, MDes(CD) Program, DA-IICT, Gandhinagar
Prof. Ranendu Ghosh, Member	Dean (Students), 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)
Dr. Sanjay Chaudhary, Member	Professor & Head (Research), Institute of Engineering and Technology (IET), Ahmedabad University, Ahmedabad (Nominated by the Academic Council)
Prof. Manik Lal Das, Convenor	Convenor, Postgraduate Committee, DA-IICT, Gandhinagar

### Internal Quality Assurance Cell

Prof. K.S. Dasgupta	Director DA-IICT - Chairman
Prof. Suman K. Mitra	Dean (AP), DA-IICT - Director
Shri Suresh Rangachar	Reliance ADA – Management Member
Prof. Sanjeev Gupta	Dean (R&D), DA-IICT – Faculty Member
Prof. Ranendu Ghosh	Dean (Students), DA-IICT – Faculty Member
Prof. Rahul Muthu	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 Anamitra Das	TCS, Gandhinagar – Member from Employer
Shri Aman Agarwal	Student, DA-IICT – Student Member
Shri Valay Vaidya	Student, DA-IICT – Student Member
Shri Swapnil Khandelwal	Alumnus, DA-IICT – Alumni Member
Shri Roghuvir Songhela	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. Nabin K Sahu, Member  
 Prof. Rutu Parekh, Member  
 Prof. Manish Narwaria, Member  
 BTP Coordinator, Member (ex-officio)

#### ■ 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

#### ■ ICT Committee

Prof. Laxminarayana Pillutla, Convenor  
 Prof. Yash M. Vasavada, Member  
 Prof. Manoj Raut, Member  
 Prof. Aditya Tatu, Member  
 Shri Rajendra Shah, Member  
 Shri Nimesh Patel, Member

#### ■ Placement Committee

Prof. Asim Banerjee, Convener  
 Prof. Jaideep Mulherkar, Member  
 Prof. Manoj K Raut, Member  
 Prof. Aditya Tatu, Member  
 Prof. Gagan Garg, Member  
 Shri Sunil Kumar Jain, Manager (Placement and CEP), Member (ex-officio)

#### ■ Resource Centre Committee

Prof. Prasenjit Majumdar, Convenor  
 Prof. Bharani Kollipara, Member  
 Prof. Shweta Garg, Member  
 Prof. Rutu Parekh, Member  
 Shri Soman Nair, Member  
 Shri Manish Mankad, Member



### ■ **Web Committee**

Prof. Manish Gupta, Convener

Prof. Rahul Muthu, Member

Prof. Puneet Bhateja, Member

### ■ **CEP Committee**

Prof. Amit Bhatt, Convener

Prof. Rahul Muthu, Member

Prof. Rajib Lochan Das, Member

Shri Sunil Kumar Jain, Manager (Placement and CEP), 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, Convener, Placement  
Committee, Member (ex-officio)

Prof. Anish Mathuria, Member

Prof. Bharani Kollipara, Member

### ■ **Disciplinary Action Committee**

Prof. Ranendu Ghosh, Dean (Students),  
Convener (ex-officio)

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

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

Shri Jigar P Yagnik, Dy. Registrar,  
Member (ex-officio)

Dr. Nandini Banerjee, Member  
(Counselor, ex-officio)

Student Representatives – two nominated student

### ■ **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, Chief Accounts Officer, Member

Prof. Usha Neelakatan (LDCE) – External Member

Student Representatives – two nominated students

### ■ **Student Activities Council**

Prof. Jaideep Mulherkar, Convener (Sports  
Committee)

Prof. Gautam Dutta, Convener (Cultural Committee)

Prof. Mukesh Tewari, Convener (Synapse  
Committee)

### ■ **Alumni Board**

Prof. Sanjay Srivastava, Convener

Prof. Anil Roy, Member

Prof. Alka Parikh, Member

Prof. Puneet Bhateja, Member

Student Representatives – four nominated students

### ■ **International Student Cell**

Prof. Srikrishnan Divakaran, Convener

Prof. Suman K Mitra, Dean (Academic Programs),  
Member (ex-officio)

Shri Soman Nair, Executive Registrar, Member  
(ex-officio)

Prof. Anil Roy, Convener (UGC), Member (ex-officio)

### ■ **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

### ■ **Campus ERP Committee**

Prof. Anil K Roy, Convener

Prof. P. M. Jat, Member

Prof. Sourish Dasgupta, Member

Executive Registrar, (ex-officio)

Mr. Dinesh Prajapati, Invited Member

### ■ **BTP Coordinator**

Prof. Biswajit Mishra

### ■ **Rural Internship Committee**

Prof. Yash M. Vasavada, Convener

Prof. Minal Bhise, Member

Prof. P. Kalyan Sasidhar, Member

### ■ **Summer Internship Coordinator**

Prof. Nabin K Sahu

## Annexure 2

### THESES, PROJECTS AND REPORTS

#### PhD Theses

1. Shah, Milind S., Design and Analysis of Distortion Reduction Techniques in Direct Conversion Receiver; xv, 118 p.; 2017. (Supervisor: Sanjeev Gupta)
2. Chittora, Anshu, A., Signal Processing Based Approach for Infant cry Analysis and Classification; xxxiv, 277 p.; 2017. (Supervisor: Hemant A Patil)
3. Patel, Tanvina, Design of Counter-measures For Spoofed Speech Detection System; xxx, 225 p.; 2017. (Supervisor: Hemant A Patil)
4. Padalkar, Milind, Novel Techniques for Auto-inpainting in Heritage Reconstruction; xx, 149 p.; 2016. (Supervisor: Manjunath V. Joshi)
5. Kumar, Naveen, Efficient, Revocable and Auditable Access over Encrypted Cloud Data; xii, 150 p.; 2017. (Supervisor: Anish Mathuria)
6. Agrwal, Sarita, Secure and Efficient Dealing with Node Capture Attack in Wireless Sensor Networks; xv, 197 p.; 2017. (Supervisor: Manik Lal Das)
7. Nahar, Sonam, Dense Disparity Estimation using Stereo Images; xviii, 142 p.; 2017. (Supervisor: Manjunath V joshi)
8. Madhavi, Maulik C., Design of QbE-STD System: Audio Representation and Matching Perspective; xxiv, 199 p.; 2017. (Supervisor: Hemant A Patil)
9. Gajbhar, Shrishail, Wavelets and Filter Banks: Novel Approaches for Real and Complex-Valued Transform Designs; xxii, 150 p.; 2017. (Supervisor: Manjunath V. Joshi)
10. Rankawat, Shalini A., Signal Processing Methods for Robust Heart Rate Estimation from Multimodal Physiological Signals; xvii, 205 p.; 2017. (Supervisor: Rahul Dubey)
11. Sarvaiya, Ashish Kalubhai, Efficient Methodologies for Package/Housing effect on Active MMIC and Signal Integrity Problems; x, 91p. ; 2016. (Supervisor: Sanjeev Gupta)
12. Makwana, Gautam Durlabhji, Bandwidth Considerations in Miniaturized Rectangular Dielectric Resonator Antennas: Experimental Validation; xxi, 159; 2016. (Supervisor: Deepak Ghodgaonkar)
13. Shikkenawis, Gitam, Similarity Preserving Dimensionality Reduction for Image Data; xxiii, 175 p.; 2016. (Supervisor: Suman K. Mitra)

#### MTech Theses

1. Hemantha, K., On Minimality Attack in Privacy Preserving Data Publishing; viii, 36 p.; 2017. (Supervisor: Maniklal Das)
2. Naik, Shruti Rajendrakumar, Privacy Preserving Identity Verification and Verifiable Computation for Health Care System; vii, 35 p.; 2017. (Supervisor: Maniklal Das)
3. Batavia, Darshan, Learn Graph Laplacian for Sparse Frequency Domain Representation; vii, 38 p.; 2017. (Supervisor: Aditya Tatu)
4. Thakkar, Shaival, Human Action Recognition Using Deep Neural Networks; viii, 33 p.; 2017. (Supervisor: Manjunath V Joshi)
5. Tandel, Deep, Low Power ASIC Implementation of SC-FDMA; ix, 35 p.; 2017. (Supervisor: Laxminarayana Pillutla)
6. Bhatnagar, Harshit, Reconfigurable interrupt driven Low power processor having deterministic response; viii, 388 P.; 2017. (Supervisor: Amit Bhatt)
7. Sharma, Ayushi, Design of Variable Frequency Low Power Interrupt Driven Processor with Deterministic Response; xi, 50 p.; 2017. (Supervisor: Amit Bhatt)
8. Shrotriya, Tushin, Design of a Real Time Low Power Interrupt Driven Processor with Fair Scheduling; ix, 48 p.; 2017. (Supervisor: Amit Bhatt)
9. Pratik, Harshit, ASIC Implementation of STBC MIMO-OFDM System; ix, 50 p.; 2017. (Supervisor: Amit Bhatt)
10. Sen, Neelasha, Disease Specific Biomedical Literature Mining : A Visual Interface; vii, 38 p.; 2017. (Supervisor: Prasenjit Majumder)
11. Chakraborty, Sayan, Analysis of Frequency based Approach and Syntax based Approach for Aspect Extraction from Product Reviews; vii, 38 p.; 2017. (Supervisor: P M Jat)
12. Tyagi, Saurabh, Research Article Recommendation System Using LDA Topic Modeling; viii, 41 p.; 2017. (Supervisor: Sourish Dasgupta)



- machine; vi, 38 p.; 2017. (Supervisor: Manjunath Joshi)
42. Patel, Dhvani, Tampered Image Detection using SVM Classifier; viii, 37 p.; 2017. (Supervisor: Maniklal Das)
43. Shihora, Rutvi, Tensor Product and Acyclic Edge Colouring; vi, 35 p.; 2017. (Supervisor: Rahul Muthu)
44. Agrawal, Jatin, Design of Low Power Time-to-Digital Converter in 0.18 $\mu$ m CMOS; ix, 45 p.; 2017. (Supervisor: Biswajit Mishra)
45. Popat, Nirali, Biomedical Search Result Diversification; vii, 39 p.; 2017. (Supervisor: Prasenjit Majumder)
46. Singh, Mansi, Image Compression using 2D-Discrete Wavelet Transform on a Reconfigurable Architecture; vii, 41 p.; 2017. (Supervisor: Biswajit Mishra)
47. Pedhadiya, Nirav, Wearable Sensing Device for Continuous Monitoring of Human Vital Signs; viii, 47 p.; 2017. (Supervisor: Biswajit Mishra)
48. Mulla, Zubain, Pattern Based Partitioning and Distribution for Sensor Data; viii, 63 p.; 2017. (Supervisor: Minal Bhise)
49. Patel, Vismay Navinkumar, Generic Approach Based Accident Detection and Notification System for Motor-Vehicles; viii, 62 p.; 2017. (Supervisor: Ritu Parekh)
50. Dubey, Mayank, Cooperative Spectrum Sensing via Dynamic Scheduling of Secondary Users; VI, 35 P.; 2017. (Supervisor: Laxminarayana Pillutla)
51. Bhanushali, Artiben, Digital Implementation of Orthogonal Frequency Division Multiplexing; x, 44 p.; 2017. (Supervisor: Laxminarayana Pillutla)
52. Lathiya, Mayur, Video De-noising using Graph Signal Processing; ix, 41 p.; 2017. (Supervisor: Manish Narwaria)
53. Dholariya, Pankaj, Forward Problem Solution of Microwave Head Imaging using Finite Difference Time Domain Method; x, 35 p.; 2017. (Supervisor: Deepak Ghodgaonkar)
54. Karki, Kamlesh, Online Learning to Rank; viii, 30 p.; 2017. (Supervisor: Prasenjit Majumder)
55. Tiwari, Pooja, Adaptive Learning Based Directional Medium Access Control (MAC) Protocol for MillimeterWave Communications; x, 35 p.; 2017. (Supervisor: Laxminarayana Pillutla)
56. Jainikkumar, Ranpura, Implementation of RSA-Decryption module ob FPGA; viii, 55 p.; 2017. (Supervisor: Biswajit Mishra)

### MDes Project Reports

1. Prajapati, Krina, How sweet is my Thali?; 34 p.; 2017. (Supervisors: Vishvajit Pandya and Madhumita Mazumdar)
2. Jain, Ashita, Dhanu Kaad ki nayi Katha; 52 p.; 2017. (Supervisors: Shalini Dey and Madhumita Mazumdar)
3. Attreya, Shyam, Kalaripayattu: The Rule of Three; 73 p.; 2017. (Supervisors: Vishvajit Pandya, Madhumita Mazumdar and Aditinath Sarakar)
4. Sharma, Saurav, Log Kehte Hai!; 57 p.; 2017. (Supervisors: Vishvajit Pandya and Binita Desai)
5. Gupta, Kunal, Inside Sehrana - a Story of Sahariya Tribe; 80 p.; 2017. (Supervisor: Vishvajit Pandya)
6. Arora, Vanshika, 3 months 21 days: A Journey in search of the Toy making Craft in Banaras; 36 p.; 2017. (Supervisor: Binita Desai)
7. Kavthekar, Prajakta, Vasudev of the City : The enduring legacy of Bharood; 41 p.; 2017. (Supervisor: Vishvajit Pandya)
8. Gupta, Akanksha, Gulbai Tekra : Unheard Voices of the Slum; 58 p.; 2017. (Supervisors: Madhumita Mazumdar and Binita Desai)
9. Desai, Riddhi, Bandhana Aur Kholna: Riti anek, Bhasha ek; 57 p.; 2017. (Supervisors: Vishvajit Pandya and Madhumita Mazumdar)



## Annexure 3

### FACULTY WITH AREAS OF INTEREST

#### Regular Faculty

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

<b>Garg, Gagan</b> PhD (Computer Science and Automation) IISC Bangalore	Information Theory, Cryptography, Number Theory
<b>Garg, Shweta</b> PhD (English) IIT Roorkee	Food and Cultural Studies, Performance Studies, Creative Writing, Literature of the Indian Diaspora
<b>Ghodgaonkar, Deepak</b> 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
<b>Gupta, Manish K</b> PhD (Mathematics) 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
<b>Jat, Pokhar Mal</b> PhD (Computer Science and Engineering) ML Sukhadia University, Udaipur	Databases, Data Mining, Web of Data, Software Design
<b>Joshi, Manjunath V</b> PhD (Electrical Engineering) IIT Bombay	Computer Vision, Image processing, Super- Resolution, Restoration, Signal Processing, Digital Communication
<b>Jotwani, Naresh</b> PhD in Computer Science Rice University, Houston, Texax, USA	Solar Energy, Engineering Design, Economics
<b>Khare, Manish</b> PhD (Computer Science) University of Allahabad, Allahabad	Image Processing, Computer Vision, Infrared Imaging, Applications of Wavelet transforms.
<b>Kollipara, Bharani</b> PhD (English Literature) English And Foreign Languages University, Hyderabad	Literature and Philosophy, Ancient Greek Philosophy, Political Theory, Aesthetics
<b>Koley, Santanu</b> PhD (Mathematics), IIT Kharagpur	Integral Equations Computational Techniques Hydrodynamics Statistical Modeling Renewable Energy
<b>Mankodi, Amit</b> PhD (Pursuing) DA-IICT, Gandhinagar, Gujarat	Embedded Systems, Computer Networks, High Performance Computing
<b>Majumder, Prasenjit</b> PhD (Computer Science), Jadavpur University, Kolkata	Information Retrieval, Natural Language processing, Digital Libraries



<p><b>Mathuria, Anish</b> PhD (Computer Science) University of Wollongong, Australia</p>	Computer Security
<p><b>Mazumdar, Madhumita</b> PhD (Modern History) University of Calcutta, Kolkata</p>	Social history of Science, Technology and Medicine in India, Cultures of Communication and The Media
<p><b>Mishra, Biswajit</b> PhD (Electrical &amp; Electronics Engineering) University of Southampton, UK</p>	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
<p><b>Mitharwal, Rajendra</b> PhD ( Engineering Science) Telecom Bretagne, Brest, France</p>	Computational Electromagnetics
<p><b>Mitra, Suman Kumar</b> PhD (Computer Science) ISI Calcutta</p>	Image Processing, Pattern Recognition, Fractal, Bayesian Network and Digital Image Watermarking
<p><b>Modi, Amishal</b> Master of Arts The Ohio State University, USA</p>	English language Teaching Victorian Literature Indian Poetry in English
<p><b>Mulherkar, Jaideep</b> PhD (Mathematics) University of California Davis, USA</p>	Mathematical Physics, Quantum Computation and Information
<p><b>Muthu, Rahul</b> PhD (Computer Science) Homi Bhabha National Institute, Mumbai</p>	Graph Theory and Algorithms
<p><b>Pandya, Vishvajit</b> PhD (Anthropology) University of Chicago, USA</p>	Material Culture, Design and Communication Culture, Visual Anthropology, Rituals and History with specific reference to Colonialism
<p><b>Parikh, Alka</b> PhD (Agriculture and Allied Economics) Cornell University, USA</p>	Rural development and the related issues like Agriculture, Poverty, Unemployment and Wages, Rural Finance, Environment and Development, Disaster Management
<p><b>Parekh, Rutu</b> PhD (Electrical Engineering) Sherbrooke University, Quebec, Canada</p>	Nanoelectronics, Nano Device-CMOS Hybridization, Design and Simulation, Circuit Design, Modeling and Simulation of Next-Generation Memory (PCM), Nanofabrication
<p><b>Patil, Hemant</b> PhD (Signal Processing) IIT Kharagpur</p>	Speaker Recognition and Wavelet Signal Processing
<p><b>Pillutla, Laxminarayana</b> PhD (Electrical Engineering) University of British Columbia, Canada</p>	Statistical Signal Processing, Information Theory, Game Theory, Non-Linear Optimization, Wireless Sensor Networks, Cognitive Radio, Cross Layer Design of Wireless Networks
<p><b>Raut, Manoj Kumar</b> PhD (Mathematics) IIT Madras</p>	Logic in Computer Science

<b>Ray, Arnab Kumar</b> PhD (Physics) Jadavpur University, Kolkata	Astrophysics and Nonlinear Systems
<b>Roy, Anil</b> PhD (Physics) IIT Delhi	Fibre Optics and Optical Communication, Quantum Optics, Nanotechnology, Semiconductor Devices, ICT Applications in Rural Development
<b>Sahu, Nabin Kumar</b> PhD (Mathematics) IIT Kharagpur	Applied Functional Analysis, Operator Theory, Variational Inequality, Variational Inclusion Problems
<b>Sasidhar, P S Kalyan</b> PhD (Computer Science and Engineering) University of North Texas-Denton, Texas, USA	Mobile and Pervasive Computing
<b>Srivastava, Sanjay</b> PhD (Physics) University of California, Los Angeles, USA	Computer Networks: Protocol Modelling, Simulation
<b>Sunitha, V</b> PhD (Mathematics) IIT Madras	Algorithms, Discrete Mathematics, Graph Theory, Parallel & Distributed Computing, Theoretical Computer Science, Interconnection Networks
<b>Tatu, Aditya</b> PhD (Image Analysis) University of Copenhagen, Denmark	Applications of Differential Geometry (Shapes, Curve Evolutions etc.) Image features, Continuous optimization.
<b>Tiwari, Mukesh</b> 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 Engineering, Evidence-based Software Engineering, Safety Analysis, Model-based Testing
<b>Vasavada, Yash</b> 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 Faculty

Name of the Faculty	Areas of Interest
<b>Banerjee, Nandini</b> PhD R D University, Jabalpur	Economics & General Management
<b>Banerjee, Soumitra</b> PhD (International Business Strategy) University of Belford, Texas, USA	Start-up Ventures, Product Development, Business Strategy, Productivity and Communication
<b>Bhaskaran, Bala</b> PGDM-IIM Bangalore, CFA, CMC	General Management, Financial Management and Analysis, Development Banking, Strategic Leadership
<b>Chattopadhyay, Bhargb</b> PhD (Statistics) University of Connecticut, USA	Statistics
<b>Dasgupta, Kuntala</b> BSc, Calcutta University	Rabindra Sangeet, North Indian, Classical, India Film Music and History.
<b>Doctor, Khushru</b> MCA, CISA, PMP, CSM, Six Sigma Green Belt	Software Engineering, Project Management, Agile Development Practices.
<b>Dalwadi, P M</b> Fine Arts, M.S.University, Baroda Postgraduate in Visual Communication, NID, Ahmedabad	Photography
<b>Mitra, Reshmi</b> PhD (Electrical & Computer Engineering) University of North Carolina at Charlotte, NC, USA	Computer Architecture, Performance Modelling, High Performance Computing, Parallel Programming
<b>Divakaran, Srikrishnan</b> PhD (Computer Science) Rutgers University, USA	Design and Analysis of Algorithms for problems with applications in Bioinformatics/Computational Biology, Data Sciences, Distributed Systems and Operations Research.
<b>Kamthan, Akash</b> M.Des (CD) DA-IICT Gandhinagar, Gujarat	Communication, Design, photography, film/ documentary
<b>Virmani, Vineet</b> Fellow [Economics] IIM, Ahmedabad	Finance and Accounting (F&A) Area
<b>Day, Shalini</b> Postgraduation in Information & Digital Design NID, Ahmedabad	Information Design, Interaction Design, User experience Design, User centred design processes, Design thinking, Design research, Typography
<b>Jha, Kamal Kishor</b> PhD (VLSI Design) ABV-IIITM, Gwalior	Device-Circuit Co-Design, Hybrid Device-Circuit Interaction, Novel Semiconductor Device Design and Modeling

<b>Patel, Narendra</b> Diploma in Fine Arts, Government Institute of Fine Arts, Jabalpur, Diploma in Visual Communication (Animation Film), NID, Ahmedabad	Film & Animation film, HFX, Communication Design, eLearning, Photography, Web Design, Multimedia, Graphics user Interface, Software Development, Printing Technology
<b>Nagchoudhuri, Dipankar</b> PhD (Electrical Engineering) Michigan State University, USA	VLSI Design, CMOS Circuits And Technology, Biomedical Signal Processing Chip Design
<b>Rangwala, Tanvi</b> MS, University of Southern California, USA	Computer Science, Entrepreneurship
<b>Raval, Nikhil</b> MBA (Strategic Management) California State University, USA	Strategy and Finance
<b>Sengupta, Amit</b> PhD (Biomedical.Engineering) IIT-Delhi,	Medical Electronics, Instrumentation, Imaging, Affordable Technology, Woman's health, Cancer, high risk obstetrics, and feto-maternal monitoring, Vascular & reproductive bio-engineering
<b>Sisodia, Diksha</b> PhD (Management) University of Connecticut, USA	Operations Management, Quantative Techniques, Business Research Methodology
<b>Khetan Lokesh</b> MDes (CD), DA-IICT, Gandhinagar	Multimedia Design, Web Design, Graphic Design and Photography





## 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)

Sunil Kumar Jain, Manager (Placement & CEP)

Anuradha Srivastava, Secretary

#### Resource Centre

Manish Mankad, Librarian

Prasanna Kumar Muduli, Assistant Librarian

Shashikumara A A, Assistant Librarian

Virendra Sathwara, Library Trainee

Trupti Barot, Library Trainee

N.Nagendra, Library Trainee

Lakhman C Rathod, Library Trainee

Manish Goswami, Library Attendant

Mukesh Shrimali, Library Attendant

#### Computer Systems

Nimesh B Patel, Manager (IT & Systems)

Prabhunath Sharma, Senior Design & Systems Assistant

#### Laboratory

Rajendra Shah, Laboratory Superintendent

Ramesh Prajapati, Deputy Laboratory Superintendent

Sanjay Bariya, Senior Laboratory Assistant

Krunal G Patel, Senior Laboratory Assistant

Bhargav Patel, Laboratory Assistant

Naresh Patel, Laboratory Assistant

Krupa Kinkhabwala, Senior Laboratory Assistant

Firoja Shiekh, Laboratory Assistant

#### Sports Office

Vishal Pratap Singh, Sports Officer

Shirish Varma, Sports Assistant

#### Student Counselors

Nandini Banerjee, Counselor

Nitu Singh Bhadauria, Counselor

#### Hostels

Jitendra Parmar, Senior Hostel Supervisor

Sawankumar Sachaniya, Hostel Supervisor

#### DCEI

Sujani Shah, Incubation Assistant

## Project Staff 2016-17

1. Hardik Sailor, Project Personnel-A, ASRC-II sponsored project from 01 April 2016 [Supervisor: Hemant A Patil]
2. Pankaj Chaudhary, Junior Research Fellow, UWDRA ISRO sponsored project from 12 January 2015 [Supervisor: Deepak Ghodgaonkar]
3. Tanvina Patel, Project Personnel Category-A, TTS Indian Languages Phase II from 21 May 2012 [Supervisor: Hemant A Patil]
4. Parth Mehta, Junior Research Fellow, CLIA sponsored project from 21 May 2012 [Supervisor: Prasenjit Majumder]
5. Miral Shah, Junior Research Fellow, DAEBRNS sponsored project from 22 March 2016 [Supervisor: Bhaskar Chaudhary]
6. Meetkumar Soni, Project Personnel Category-B, ASRC Phase-II [Supervisor: Hemant A Patil]
7. Ankur Pokhara, Junior Research Fellow, DOS sponsored project [Supervisor: Prof. Biswajit Mishra]
8. Deepti Ameta, Junior Research Fellow, SERB sponsored project [Supervisor: Prof. Saurabh Tiwari]



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