

# 8th Annual Report 2016-17



**Charotar University of Science and Technology** 

**Aegis:** Shri Charotar Moti Sattavis Patidar Kelayani Mandal





# CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT)



# EIGHTH ANNUAL REPORT 2016-17



# A Word of Inspiration from the President....



Education does not have a single purpose; it serves multiple objectives. It is a solution; a solution to all problems – be them social, economic, political, technological, or cultural. It is the key to success in life. Thus, by making education available to all children, we are giving everyone an equal opportunity to succeed in life.

The real goals among many behind imparting education should be to prepare children for citizenship, to cultivate a skilled workforce for the socio-economic growth of the country, and to prepare the students for competition in a global marketplace. In fact, the purpose of education should be focused more on social, academic, cultural and intellectual development so that students can grow up to be engaged citizens. In short, Education should prepare young people for life, work and citizenship.

With the same philosophy, **Charotar University of Science and Technology (CHARUSAT)** has been established to put India on a Global Education Hub through creation, augmentation and dissemination of knowledge. Since inception, CHARUSAT has been redefining and redesigning higher and professional education.

It focuses on converting eyes into sight and vision; information into knowledge and wisdom; and demography into citizens and harmonious living. Teachers also dedicate their efforts to construct and facilitate opportunities where the students can practice and experience creativity. Moving a step ahead towards the purpose of education, CHARUSAT aims to make its students Job Creators and not Job Seekers.

Further, CHARUSAT strongly believes in the ideals of Sardar Vallabhbhai Patel - The Iron Man of India. He believed, "Education without character is futile". In order to inculcate right values in the students, CHARUSAT has been established as a University fostering High Moral and Ethical Values. Honesty, Integrity, and Transparency have been the benchmarks of CHARUSAT in both word and action. And hence, it works in synchronization with all of its stakeholders.

CHARUSAT has also dedicated all its efforts in giving back to the society and has been striving hard to create the future leaders. To give back to the society, **Charusat Rural Education Development Program** has been started. It strives to ameliorate the standards of education in rural areas with a focus on strengthening of school infrastructure facilities through guidance in lab development, library and other knowledge resource development and deployment of technology and other tools in pedagogy. Students and Teachers of CHARUSAT have all been contributing in this noble gesture.

Research, particularly, socially relevant research has been the buzzword at CHARUSAT. A Research and Development Centre has been established on the Campus. Further, to initiate and foster research in Space Technology, **Charusat Space Research and Technology Center (CSRTC)** has also been established. It works in close collaboration with ISRO.

CHARUSAT also fosters a niche for world class education at the rural base. In the long run, it aspires to be a **World Class University**. Primarily, it strives to be in the league of Top 20 Universities at National Level. It has also charted out Road Map. I extend an invitation and request you all to join the march and facilitate CHARUSAT to achieve these goals.

Let me also express a word of gratitude to all who have volunteered and contributed in the development and expansion at CHARUSAT Campus – be the contribution in the form of knowledge, skills and resource sharing. Particularly, I would like to thank the Members of Governing Body, Board of Management and other Committees for their invaluable guidance. I also thank all the donors, executives of Matrusanstha, Kelavani Mandal, and CHARUSAT, experts, principals, teachers and students for their contribution.

The Eighth Annual Report depicts major of the activities and ahievements of the year 2016-17. I feel contented to see the progress of the institutes, activities and achievements of the Faculty Members and Students, and unique initiatives of community service, research and collaborations.

I hope you will all find it informative and inspiring.

- Surendra Patel



# From the Desk of the Provost



**Knowledge and Skills** play a pivotal role in shaping economic growth and ensuring social transformation and empowerment of people. Knowledge, primarily, has to do with education, research, and innovation that shape the future of societies across the world. Importantly, now Technology is at the core in teaching – learning process in higher education.

**Higher Education in India** has a long history stretching back to the ancient urban centers of learning at Takshashila and Nalanda. The pace of growth of higher education institutions was very slow during the period from 1857 until India got independence in 1947. However, post-independence, the institutes of higher learning and universities have flourished in India making the Indian Higher Education System one of the largest ones.

The Times Higher Education World University Rankings 2016-2017 list the 980 top universities in the world. It includes institutions from 79 countries, represents an elite 5 per cent of the world's higher education institutions. It reports that the best universities in the world are led by a UK university for the first time in the 12-year history. The University of Oxford is the world's number one university, knocking five-time champion the California Institute of Technology (Caltech) into second place. It is the first time a US institution does not take the top spot. However, the North American powerhouse still dominates the list with 148 universities in the top 980 and 63 in the top 200. The rest of the top five is filled by Stanford University in third, the University of Cambridge in fourth and Massachusetts Institute of Technology (MIT) in fifth.

Fortunately, Asia continues its ascent. The world university rankings prove that Asia's improvement in higher education is real and growing. Overall, 289 Asian universities from 24 countries make the ranking and an elite 19 land in the top 200, up from 15 last year. However, India, in particular, has been lagging far behind. **However, the fact is that India is making rapid progress.** Finally, now in India, Privatization has been looked upon as an opportunity for national development.

Many not-for-profit organizations and corporates have already initiated the establishments of World Class Institutions. Many others have joined hands with the government. One such academic organization rapidly moving towards becoming a World Class University (WCU) is **Charotar University of Science and Technology (CHARUSAT)**.

CHARUSAT has been established by promulgation of Gujarat Private University Act, 2009. It is empowered to confer degrees under Section 22 of UGC Act, 1956. Presently, there are, on CHARUSAT Campus, 6 faculties, 8 institutes offering more than 72 programmes leading to UG, PG and Ph. D in the field of Engineering and Technology, Pharmacy, Computer Applications, Management, Applied Sciences, Nursing, Physiotherapy and Paramedical Sciences. All education programmes are semester based. Learning is based on Credit System and evaluation is on Grading System.

Looking to the academic excellence and social impact, CHARUSAT has been awarded with *A Grade* by *National Assessment and Accreditation Council* (NAAC), Bangalore and *Knowledge Consortium of Gujarat* (KCG), Government of Gujarat. Quite uniquely, CHARUSAT has been the **First State Private University** in Gujarat to obtain **A Grade** in the very first cycle of Assessment by NAAC.

The University Campus is spread over 120 acres of lush-green land with modern teaching and learning facilities. The entire campus is Wi-Fi enabled and has 240 mbps round the clock internet connectivity. There are more than 2300 PCs, high end servers, and latest softwares, with more than 135 laboratories. The Central Library is enriched with more than 75000 books, 309 Print Journals and 13309 E-journals & magazines and educational databases. Present development at CHARUSAT has capital outlay of Rs.1500 million.

Further, currently, CHARUSAT is having 350 faculties and staff pulsating with vigor and will to conquer the world, engaged in teaching, research and imparting knowledge & skills and moulding of more than 6500 students on roll. It has been envisaged to expand the activities at CHARUSAT beyond teaching and extension through establishing Incubation, Innovation and Entrepreneurship Development Centre in the Campus to deal with various activities.

As a Networking University, CHARUSAT has always been willing to work in partnership for mutual benefits with Industries, Research Centres, Academic Institutes and even Universities. CHARUSAT aims to become a dynamic and globally vibrant institute through excellence in innovation and research through two of its thrust areas.



# EIGHTH ANNUAL REPORT 2016-17

The first has been and would remain Research and Innovation. In this direction, several initiatives have been taken. They are: Introduction of Ph. D. Programmes. In order to promote research and innovation, in the very first year of its inception, CHARUSAT launched Ph D program. So far, 33 Scholars have been awarded with the degree of Doctor of Philosophy. Around 45 will be awarded in the next Convocation. And, in addition, presently, 287 Research Scholars are pursuing their Ph D from CHARUSAT.

University has created Post- doctorate fellowships as well and has 12 Endowment Chairs. Experts of eminence from around the World are invited by Departments and Institutes to share their knowledge and skills. Quite uniquely, Dr. APJ Abdul Kalam Chair has been established. **Padma Shri A S Kiran Kumar**, Chairman, ISRO and Secretary, Department of Space visited CHARUSAT. He also delivered the inaugural and motivational / enlightening lecture on Space Technology and Development. Moreover, thrust is also goven on Research and Consultancy Projects. CHARUSAT, at present, has on hand, 40 ongoing **research projects** of around Rs. 7.49 crores from funding agencies like DST/DBT, GUJCOST, UGC, DAE, SERI, CSIR, ABB, DNP Industry, GSBTM, CHARUSAT and many more in addition to 11 completed Projects worth Rs. 2.2 crore since 2009. It also has 52.6 lakhs Projects of Industry, Consultancy and Modrob Grants exceeding Rs. 34.5 lakhs. CHARUSAT Faculty and Students hold 2 Patents and 18 more Patents have been filed. To promote research and motivate them, University has instituted best research paper award in each faculty.

The Second thrust area is focusing on healthcare education and healthcare delivery. Healthcare Education has been initiated in the allied fields of Nursing, Physiotherapy and Paramedical Sciences. Further, to complement healthcare education and to cater to the healthcare needs of all populace of the society, World – Class Multi-specialty **CHARUSAT HOSPITAL** has also been established. Charusat Hospital is planned to be a 450 Bed Hospital at a capital outlay of Rs. 250 Crores. In the first phase, 150 Bed Hospital has been fully functional.

Further, during the year, many National and International Scholars visited CHARUSAT and delivered lectures; similarly CHARUSAT faculties visited places for the similar purposes, too.

In context to student support and progression, in addition to organizing various events and activities and facilititating the students for the same, CHARUSAT has introduced different kinds of scholarships of Rs. 4 Crs. CHARUSAT has instituted total 27 Gold Medals, and created indoor and outdoor sports facilities. CHARUSAT also provides special training to the students for GATE, GPAT, GRE, and other Professional Certification Programs in their fields of Study. Thus, CHARUSAT aims at providing Holistic Education to students. It incorporates the principles of spirituality, human wholeness, interconnectedness, reverence for life and nature, individual uniqueness, caring relationship, equality, justice and freedom.

Finally, CHARUSAT has set for itself the vision and goal of being amongst the top 20 Universities at the National Level. For the purpose, Vision - Roadmap has been charted out. In the long run, CHARUSAT aspires to have an international identity through appearing in the list of World Class Universities. It will strive to achieve it through a culture that represents the serenity of the oldest places of learning like - Takshashila and Nalanda and the scholarly aptitude of the Centres like Harward and Stanford.

The Eighth Annual Report aptly elaborates the events, activities, initiatives, and aspirations along with the development that took place at CHARUSAT during the year 2016-17. I hope you will be happy to read about those developments and activities.

At the time of the publication of the **Eighth Annual Report**, I would like to acknowledge the contribution of Students, Principals, Faculty and Staff, Executives and Advisors, visiting experts and donors who have accelerated the development. I would like to thank all the students and their parents for keeping faith in CHARUSAT. Further, I also thank the Members of Governing Body and Board of Management for charting out the growth path. I express sincere thanks to all the Members of Academic Council, Research Council, Advisory Boards, Board of Studies and other Committees of CHARUSAT along with the Advisors for their help and guidance. Finally, thanks to all the Deans and Principals of the constituent institutes of CHARUSAT and their staff (teaching and non-teaching) for carrying out different activities, elite academia and industry – who have been sharing their knowledge and expertise and all Visitors and Well-wishers for their motivation.

- Dr. B G Patel



### **Preface**

Dear Readers.

The Eighth **Annual Report** of CHARUSAT depicts various events of eminence, academic, cocurricular, extra-curricular activities as well as distinct achievements of CHARUSAT during the year 2016-17. The Report also consists of a pictorial narrative of the vibrant activities carried out throughout the year along with the financial statements of the year.

In all, the report portrays the development and activities carried out and initiated at CHARUSAT during the year. At the same time, it also enlists various programmes offered and increasing intake of students at CHARUSAT. Also, Faculty Research including both – Publication and Presentation along with the Research Projects undertaken and carried out is also notably included in the report. Faculty Achievements, Participations, Students' Achievements and Participations are also duly tinted. A wide range of events such as Conferences, Workshops, Training Programs, and Student events like TechFests, Expert Lectures, Industry Visits are also highlighted. Moreover, Infrastructure, Learning Resources and Facilities have also been given due place.

To facilitate reading, the report is divided into 4 parts. The parts are:

Part 1: CHARUSAT at a Glance; Councils, Boards, Committees at CHARUSAT

Part 2: Journey Traversed 2016-17

Part 3: Financial Statement of the Year, and

Part 4: A Pictorial Narrative of the Year and CHARUSAT in News

Finally, the Editorial Board expresses a deep sense of gratitude and sincere thanks to all the Institute Coordinators and Representatives namely Mr. S K Hadia of CSPIT, Ms. Nirali Honest of CMPICA, Mr. Dharmang Pandya of RPCP, Ms. Kirti Makwana of I<sup>2</sup>IM, Dr. Hilor Pathak of PDPIAS, Ms. Anjali Patel of ARIP, Ms. Sapna Patel of MTIN for their help and support in preparing the report. Gratitude is also due to HSS Faculty Members for their constant help in compiling and composing the report.

Editorial Board

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# Part 1

CHARUSAT at a Glance Councils, Boards, Committees at CHARUSAT



## CHARUSAT at a Glance

#### Preamble

Charotar University of Science and Technology (CHARUSAT) has been conceived to put India on global education map by making **Charotar – the Land of Sardar Patel the Global Education Hub**. CHARUSAT is accorded the status of a university under Gujarat State Act No. 8 of 2009. CHARUSAT is also empowered to award degrees by UGC under Section 22 of UGC Act, 1956.

CHARUSAT offers 72 different Undergraduate, Postgraduate, and **Ph D Programmes** with more than 6500 students enrolled in 8 different Institutes. To foster Innovations, an **R & D Centre** has also been established. Further, for the development of CHARUSAT employees through enriching knowledge, sharpening skills and fostering attitude, a **Human Resource Development Centre** has also been established. The development activities have a capital outlay of Rs. 150 Crores.

CHARUSAT is established with:

#### Vision

To become a dynamic global Institution in knowledge economy through excellence and impact of teaching, research and social contribution

#### Mission

To serve the society by striving to transform it through creation, augmentation, dissemination and perpetuation of knowledge

The university strives to achieve its mission through pursuit of education, learning and research at the highest levels of excellence.

#### **Continuing the Tradition of High Moral Values**

As a University, CHARUSAT is proud to continue practicing the **High Moral Values** carved by Shri Charotar Moti Sattavis Patidar Kelavani Mandal. It works with a commitment to:

- Transparency at all levels as demonstrated through management practices in processes like admission, recruitment, account and purchase
- Accountability for the effective results, placements and preferences in career

Integrity amongst its fraternity and society, as seen in the alignment of faculty & staff in their commitments and delivery

- Openness and diversity of thought, experience and culture as planned for a multidisciplinary, multicultural work and environment, and by equal opportunity to all sections of society
- Fairness and equity in all its actions

# Kelavani Mandal – The Trust that caused the Development

The seeds of CHARUSAT were sown somewhere in the year 2000 by **Shri Charotar Moti Sattavis Patidar Kelavani Mandal**. Kelavani Mandal is a not for profit organization that solely focuses on imparting education and spreading light of knowledge. Kelavani Mandal started functioning from 1994 after getting registered as a not for profit Education Trust with Charity Commissioner's Office.

It works with the following Vision and Mission:

#### Vision

To emerge as a foremost not-for-profit organization striving to transform society through leadership in teaching, research, scholarship, and social action

#### **Mission**

Social upliftment and transformation through knowledge and education

As its first venture, Kelavani Mandal established Education Campus – Anand in 1995. D Z Patel (Ramol / London) Higher Secondary School (Science Stream) and Jashkamal – Milcent Management Training Centre (JMTC) are the constituents of it.

To further bring about social transformation, the Trust took up the Changa Campus project. Education Campus - Changa was founded in 2000 with the establishment of Charotar Institute of Technology (CITC) as the first institute which is now known as **Chandubhai S Patel Institute of Technology** (CSPIT). The development started only with 240 students, 4 programmes, 1 institute and an investment of Rs. 3 Crores. In the years 2002 and 2004, the Mandal established Charotar Institute of Computer Applications (CICA) and **Ramanbhai Patel** 



College of Pharmacy (RPCP) respectively. CICA has been rechristened as Smt. Chandaben Mohanbhai Patel Institute of Computer Applications (CMPICA). Year 2006 saw the commencement of Indukaka Ipcowala Institute of Management (I2IM). Two more institutes P D Patel Institute of Applied Sciences (PDPIAS) and Dr. K C Patel R & D Centre were established in the year 2007. The year 2009, continuing witnessed establishment growth, the Physiotherapy and Nursing institutes heralding the entry in the field of Healthcare Education. Both the institutes were then rechristened. They are now known as Ashok and Rita Patel Institute of Physiotherpy and Manikaka Topawala Institute of Nursing. Also to enrich the knowledge, sharpen the skills and inculcate the right attitude in CHARUSAT Staff, Pri. B I Patel Human Resource Development Centre has been established in 2012. There also exists, on CHARUSAT Campus, a Space Research and Technology Centre fostering research in Space Technology and a Rural Education Development Programme launched to give back to the society by dedicating efforts for education amelioration in rural schools.

#### **Boards and Councils @ CHARUSAT**

To guide, monitor and lead the development, progress and expansion at CHARUSAT, different Boards and Councils are formed. Governing Body and Board of Management are the apex bodies that lead CHARUSAT to achieve higher standards. To further help it discharge its vital duties and function in an effective way, various boards and councils like Academic Council, Research Council, Faculty Boards, and Boards of Studies are also formed. In addition, Advisory Boards are formed for each institute and centre on CHARUSAT Campus. For different functions and purposes, specific committees like Finance Committee, HR Committee, Purchase **Committees for Equipments, Purchase Committee for** Library Committee, Furniture. Exam Reform Committee, and others.

#### Faculties @ CHARUSAT

Programs offered by CHARUSAT fall under the ambit of different **faculties**. They are:

- Faculty of Technology and Engineering
- Faculty of Computer Science and Applications
- Faculty of Pharmacy
- Faculty of Management Studies
- Faculty of Applied Sciences, and
- Faculty of Medical Sciences

#### Institutes and Programs at CHARUSAT

#### Chandubhai S Patel Institute of Technology

Chandubhai S Patel Institute of Technology (formerly Charotar Institute of Technology) is the first institute established on the Campus. It was established in the year 2000. It is patronized by Ms. Sumitraben Chandubhai Patel, USA and Family.

The institute offers **B. Tech. Programs** with a total intake of 720 students. The institute also offers **M. Tech. Programs** having the intake capacity of 180. From the Academic Year 2013 – 14, the institute has also started integrated program - Master of Technology Management (MTM) with an annual intake of 60 seats. **Ph D Program** is also offered in all disciplines under Faculty of Technology and Engineering. Presently, 76 Research Scholars are pursuing their Ph D.

In a nutshell, the details of programs are:

#### **Bachelor Degree Programs**

Bachelor of Technology (Electronics & Communication Engineering) - 120 Seats

Bachelor of Technology (Computer Engineering) - 120 Seats Bachelor of Technology (Information Technology) - 120 Seats Bachelor of Technology (Mechanical Engineering) - 120 Seats Bachelor of Technology (Electrical Engineering) - 120 Seats Bachelor of Technology (Civil Engineering) - 120 Seats

#### **Master Degree Programs**

Electronics & Communication Engineering (CSE)

Electronics & Communication Engineering (Embedded Systems & VLSI Design)

Mechanical Engineering (CAD / CAM)

Mechanical Engineering (Advanced Manufacturing Technology)

Computer Engineering

Electrical Engineering (Power System)

Information Technology

Civil Engineering (Structural Engineering)

#### **Doctorate Program**

Doctor of Philosophy (Electronics & Communication Engineering)

Doctor of Philosophy (Mechanical Engineering)

Doctor of Philosophy (Electrical Engineering)

Doctor of Philosophy (Computer Engineering)

Doctor of Philosophy (Information Technology)

Doctor of Philosophy (Civil Engineering)



# Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

Smt. Chandaben Mohanbhai Patel Institute of Computer Applications was established in 2002. The Institute is patronized by Dr. M I Patel, Former Sheriff of Mumbai and Industrialist of repute. It was rechristened as Smt. Chandaben Mohanbhai Patel Institute of Computer Applications on December 29, 2011.

It offers three-year full-time **Master of Computer Applications** (MCA), two-year full-time MCA (Lateral Entry), M Sc (IT), and five-year dual degree BCA + MCA Programs. **Ph D** Program in Computer Science and Applications is also offered under Faculty of Computer Science and Applications.

Following are the details of different programs:

MCA Program
MCA (Lateral Entry)
M Sc (IT) Program
BCA
Ph D Program

#### Ramanbhai Patel College of Pharmacy

Functional from July 2004, Ramanbhai Patel College of Pharmacy is established with a view to promote excellence in pharmacy education and to prepare young men and women to meet the challenges of the Industrial Pharmacy and Pharmacy practice. The institute has patronage of Pharma Giant - Zydus Cadila Healthcare Ltd. It is patronized by Shri Pankaj Patel, CMD of Zydus Cadila Healthcare Ltd to commemorate his father late Shri Ramanbhai Patel – the pioneering and distinguished pharmacist of India.

The institute offers **B. Pharm. Program, 5 M. Pharm. Programs**. The programs are approved by All India Council for Technical Education (AICTE) and Pharmacy Council of India (PCI). RPCP has also introduced 2 new programmes containing 2 semesters. They are: PGDCT – Post Graduate Diploma in Cosmetic Technology; and PGDPT – Post Graduate Diploma in Packaging Technology. It also offers Certificate Programs in Cosmetic Technology and Packaging Technology. Importantly, **Ph D Program** is offered under the Faculty of Pharmacy in allied areas of pharmacy.

Following are the details of programs and specializations offered:

#### **Bachelor Degree Program**

B Pharm Program

#### **Master Degree Programs**

M Pharm Program in Pharmaceutical Technology M Pharm Program in Quality Assurance M Pharm Program in Clinical Pharmacy M Pharm Program in Pharmacology & Toxicology M Pharm Program in Drug Regulatory Affairs in Pharmaceutics

#### **PG Diploma Programs**

Post Graduate Diploma in Packaging Technology Post Graduate Diploma in Cosmetic Technology

#### **Certificate Courses**

CPCT – Certificate Program in Cosmetic Technology CPPT – Certificate Program in Packaging Technology

#### **Doctorate Program**

Ph D Program in Pharmaceutics, Pharmaceutical Analysis, Pharmacognosy, Pharmacology and Pharmaceutical Chemistry

#### Indukaka Ipcowala Institute of Management

Indukaka Ipcowala Institute of Management started from the academic year 2006 - 07. The Institute has been striving to make education contemporary and relevant to the current and future needs of the globe. It is patronized by IPCO Industries - a business house of repute.

The institute imparts management education through master degree programs - MBA and PGDM Programs. Both the programs have annual intake capacity of 120 and 60 seats respectively. Both the programs are also approved by All India Council for Technical Education (AICTE). Further, the Institute has also started Degree Program BBA with an annual intake of 60 seats. Ph D Program is offered under the Faculty of Management Studies in allied areas of Management. In brief, the programs offered with intake are:

MBA Program : 120 seatsPGDM Program: 060 seatsBBA : 060 seats

o Ph D Program

#### P D Patel Institute of Applied Sciences

Launched in the year 2007, P D Patel Institute of Applied Sciences imparts postgraduate education and conducts research in emerging areas of Biosciences, Physical



Sciences, Chemical Sciences, and Mathematical Sciences. The Institute is patronized by Late Shri P D Patel, CMD, Emirates Transformer and Switchgear Ltd., Dubai and his Family.

It offers **B Sc**, **M. Sc**. and **Ph D Programs** in emerging areas of Applied Sciences. The details of the programs are:

Program
Bachelor Degree
B Sc
Master Degree Programs
M Sc in Biotechnology
M Sc in Biochemistry
M Sc in Microbiology
M Sc in Advanced Organic Chemistry
M Sc in Physics
Doctorate Program
Ph D Program

#### Manikaka Topawala Institute of Nursing

Manikaka Topawala Institute of Nursing was established in 2009 with an aim of meeting the requirements of nurses at various hospitals of the state and the nation. It is patronized by Smt. Sumitraben Patel and Smt. Jyotsnaben Harishbhai Patel - daughters of Late Shri Manibhai Z Patel.

The Institute offers **B. Sc. (Nursing) Program** with student intake of 60. **M Sc (Nursing) Programs** are also started with five different specialiazations. The programs are approved by Indian Nursing Council and Gujarat Nursing Council. In addition, under the aegis of Faculty of Medical Sciences, **Ph D Program** in Nursing is also offered.

#### Ashok and Rita Patel Institute of Physiotherapy

To foray into healthcare education, Ashok and Rita Patel Institute of Physiotherapy was established in the year 2009. It offers a four and a half year **Bachelor of Physiotherapy (B PT) Program**. The program has an annual intake capacity of 75 seats and is also approved by Indian Association of Physiotherapists. The institute also offers Master of Physiotherapy (M.P.T.) programs in five specializations, namely Musculoskeletal Sciences, Neurological Sciences, Cardiopulmonary Sciences, Rehabilitation, Woman's Health, and Paediatric. **Ph D Program** in Physiotherapy is also offered under the Faculty of Medical Sciences.

The institute also has the patronage of US based technocrat Shri Ashok Patel and his wife Smt. Rita Patel.

#### Centres @ CHARUSAT

CHARUSAT is established as a research driven socially relevant university. It dedicates its efforts to foster socially relevant research, innovations, industrial interaction and collaborations, and human resource development. To facilitate the same, R&D Centre, HRDC, CSRTC and CREDP Cell are established on the campus.

#### Dr. K. C. Patel Research and Development Centre

Dr. K C Patel Research and Development Centre was established in January 2007 to carry out Research and Development work in the emerging areas of science and technology. It undertakes multidisciplinary research as well as activities of scientific and industrial development.

# Pri. B I Patel Human Resource Development Centre (HRDC)

Pri. B I Patel Human Resource Development Center (HRDC), the ninth Institute on CHARUSAT Campus, is established to cater, in house, the need to have faculty members of excellence for taking CHARUSAT to the status of a World Class University (WCU) in the near future. Primarily, HRDC takes care of employee training and development.

# Charusat Space Research and Technology Center (CSRTC)

To initiate and foster research in Space Technology, Charusat Space Research and Technology Center (CSRTC) has been established on 15th June, 2013. It has been established with a plan to build a fully functional miniature satellite to encourage the inspiration and expansion in the field of space technology. The management has also allocated an initial fund of Rs. 5 Crore for —Student Satellitell project and the development of Space Technology Center.

Charusat is the only university in Gujarat to have Space Technology Center.

# Charusat Rural Education Development Program (CREDP)

Charusat Rural Education Development Program (CREDP) is one of the Education Support initiatives of CHARUSAT. It was launched on September 26, 2013 in the august presence of **Shri Bhupendrasinh Chudasama**, Hon'ble Minister of Education, Government of Gujarat. It strives for the development of school education in Charotar region and eventually it will be



expanded to the state of Gujarat. The program focuses on Strengthening of school infrastructure facilities through guidance in: lab development, library and other knowledge resource development and deployment of technology and other tools in pedagogy. Primarily, the CREDP Cell organizes 1) Training Programs for Students, 2) Training Programs for Teachers, 3) Counseling Programs for Parents and School Management, and 4) Awareness and Motivational Programs.

#### **Academic System**

CHARUSAT curriculum and pedagogy correspond with the industry needs and aspire to reach International Standards. It strives to prepare students for diverse and interdependent global competitive world. Academic System at CHARUSAT ensures that academics value the pursuit of excellence in teaching as much as in scholarship and research.

In addition to regular classroom interactions, Industrial Visits, Study Tours, Expert Lectures, Interactive IT enabled Teaching Practice and Continuous Evaluation also form an integral part of innovative pedagogy at CHARUSAT.

Further, all education programs are semester based. Learning is based on Credit System and evaluation on Grading System. A student needs to study sincerely all through the course to get a good Cumulative Grade Point Average (CGPA).

# Infrastructure and Facilities Land and Buildings

CHARUSAT has its establishments on 120 acres of land. Various academic facilities and resources are housed in architecturally very well designed 9 institute buildings, a workshop and a Central Administrative Building. They have a total construction/built up area of 70,520 sq. mtrs.

#### **Internet Access**

All staff members and students have free access to Wi-Fi Facility and 240 mbps Internet connectivity. The facility is made accessible round the clock free of cost.

#### **Computer Labs**

The computer labs are equipped with more than 2300 computers, high end servers and latest softwares to cater varied needs of all the students.

#### Other Labs of Prominence

The university houses more than 135 state-of-the-art

laboratories. Some of noteworthy, high-end laboratories Pharmaceutical Processing Equipment include: Laboratory, Sophisticated Analytical Instrumentation Laboratory, Sophisticated Instrumentation Laboratory, Magnetic Measurement Laboratory, Magnetic Fluid Research Laboratory, Data Centre with Cloud Ready Environment Engineering Laboratory. Environment. Manufacturing Technology Laboratory. Surface Material Engineering Laboratory, Testing and Characterization Laboratory, Virtual (Augmented) Reality Laboratory, Dr. S. M. Patel Research & Characterization Laboratory, and CHARUSAT Sophos Information Security Laboratory. All laboratories are well equipped with hi-tech equipments, which not only cater to UG, PG, and Ph D programs, but are also very useful for testing, consultancy and research projects.

#### **Knowledge Resource Center**

Central Library at CHARUSAT is enriched with more than 75000 books, 309 Print Journals and 13309 E-journals & magazines and educational softwares. E-resources, databses and journals like: EBSCO, EMERALD, Science Direct, American Institute of Physics, RSC, Journal of Pharmaceutical Sciences & Pharmacological Reviews, Few Journals of Medknow Publication, Springer, APS, Ace Equity, J – Gate and others are also made available to all Students and Staff Free of Cost. All the constituent institutes of CHARUSAT have also established their Libraries.

Centrally, there exists National Knowledge Connectivity through INFLIBNET and DELNET. Uniquely, CHARUSAT Institutes have Memberships of IIM-A and AMA.

#### **Sports and Recreation**

CHARUSAT takes ample care for students' recreation and leisure activities. The focus is on all-round development of the students. There is a huge open sports ground with an area of 19284 sq. m. with another Playground of 10652 sq. m area under planning, a center for indoor games, and a gym. Round the year many activities are organized.

#### **Other Amenities**

To put students at ease, the campus has a reprography center and a stationery store. There are food courts – Hari Om Food Plaza, Amul Parlor, Nescafe Parlor, Ice Berg and other Food Zones and Plaza on the campus. The Kaira District Central Co-op Bank Ltd - KDCC Bank, Changa Branch is set up on the Campus. In addition, ATM Centre of AXIS Bank are also put up on the Campus.



# **Boards, Councils and Committees**

### **Governing Body**

Governing Body	
Shri Surendra M Patel	
President, CHARUSAT	
President, Shri Charotar Moti Sattavis Patidar Kelavani Mandal	President
Former Chairman, Ahmedabad Urban Development Authority	
Former, Member of Parliament, Rajya Sabha   A Renowned Technocrat	
Dr. B G Patel	Provost
Provost, CHARUSAT   Former Vice Chancellor Sardar Patel University	FIUVUSL
Shri Virendra S Patel	
Trustee, Shri Moti Sattavis Patidar Kelavani Mandal	Member
Treasurer, CHRF   Founder, Charusat Educational Foundation, USA	
Dr. V G Patel	Member
Founding Director EDI   Renowned Expert in Entrepreneurship Development	Member
Dr. M I Patel	
Former Sheriff of Mumbai   Renowned Technocrat and Industrialist	Member
Chief Parton, Smt. Chandaben Mohanbhai Patel Computer Application, CHARUSAT	
Shri Naginbhai M Patel	
President, CHRF	Member
President, Shri Charotar Moti Sattavis Leuva Patidar Samaj – Mathrusanstha	
Dr. Anuradha Gajjar	Mamban
Dean, Faculty of Pharmacy   Principal, Ramanbhai Patel College of Pharmacy	Member
Dr. Amit Ganatra	
Dean, Faculty of Technology & Engineering	Member
Head, Department of Computer Engineering, CSPIT	
Shri Hemal Patel	Manakan
CEO, Elitecore Technologies Ltd NJ-USA and India	Member
Leading Entrepreneur in IT Industry	
Dr. Bimal Patel	M l
Director, Gujarat National Law University	Member
Dr. Paresh Patel	
Prominent Surgeon (FACS, FICS-USA)	Marshar
President & Surgeon, Shreedha Hospital, Vahera (Borsad)	Member
Leading Entrepreneur in IT Industry	
Shri Devang Patel	
Chief Executive, IPCO Industries & Business operated at USA	Member
Chief Parton, Indukaka Ipcowala Institute of Management   A Philanthrope of repute	
Shri Pankaj R Patel	
Chairman & Managing Director, Cadila Healthcare Ltd	3.6
Chief Patron, Ramanbhai Patel College of Pharmacy	Member
Chairman, Ahmedabad Management Association	
Principal Secretary	Member
Department of Education, Government of Gujarat	
Shri Mahesh G Patel *	Invitee
Coordinator, Education Campus Anand	Member
Mr. Devang Joshi (Ex – officio)	
Registrar, CHARUSAT	Ex - officio
ACCEPTAGE OF THE CONTRACT OF T	

<sup>\*</sup> From January 2016



**Board of Management** 

Doard of Management	
Shri Surendra M Patel	
President, CHARUSAT	
President, Shri Charotar Moti Sattavis Patidar Kelavani Mandal	President
Former Chairman, Ahmedabad Urban Development Authority	1 Testuent
Former Member of Parliament, Rajya Sabha	
A Renowned Technocrat	
Dr. B G Patel	
Provost	Provost
Former Vice Chancellor Sardar Patel University	
Shri Naginbhai M Patel	
President, CHRF	Member
President, Shri Charotar Moti Sattavis Leuva Patidar Samaj –Mathrusanstha	
Dr. V G Patel	
Founding Director, EDI, Ahmedabad	Member
Renowned Expert in Enterpreneur Development	
Shri H T Patel	
Former President, API Business, Zydus Cadila Healthcare Ltd	Member
Corporate Leader	
Shri Manubhai P Patel	
Prominent Industrialist	Member
MD, Sigil India Ltd, Vadodara	Member
Parton – P D Patel Institute of Applied Science	
Dr. R V Upadhyay	
Dean, Faculty of Applied Science	Marshar
Professor & Principal, P D Patel Institute of Applied Sciences	Member
Former Professor & Head, Department of physics, Bhavnagar University	
Dr. Atul Patel	
Dean, Faculty of Computer Applications	Member
Principal, Smt. Chandaben Mohanbhai Patel Institute of Computer Application	
Dr. Govind Dave	
Dean, Faculty of Management Studies	Mossilari
Principal, Indukaka Ipcowala Institute of Management	Member
IIM Bangalore Alumnus & Former Professor IRMA	
Shri C A Patel *	Incitos
Vice President	Invitee
Kelavani Mandal	Member
Mr. Devang Joshi	Member
Registrar, CHARUSAT	Secretary
	1 3

<sup>\*</sup> From January 2016



#### **Academic Council**

Academic Council		
Name	Designation	
Dr. B.G. Patel	Provost (ex officio)	Chairperson
Dr. Amit Ganatra	Dean, Faculty of Technology & Engineering	Member
Dr. R.H. Parikh	Dean, Faculty of Pharmacy	Member
Dr. R.V. Upadhyay	Dean, Faculty of Applied Science	Member
Dr. Govind Dave	Dean, Faculty of Management Studies	Member
Dr. Atul Patel	Dean, Faculty of Computer Science and Applications	Member
Dr. S P Kosta	Head, Charusat Space Research Technology Center	Member
Dr. R V Upadhyay	Head, KRADLE	
Dr. Kamal Chakravartty	Head, Pri B I Patel Human Resource Development Center	Member
Dr. Bhaskar Pandya	Head, Charusat Rural Education Development Program	Member
Dr. Vijay Panchal	Teacher, Faculty of Technology & Engineering	Member
Dr. Palas Mandal	Teacher, Faculty of Applied Science	Member
Dr. Vijay Parmar	Teacher, Faculty of Pharmacy	Member
Ms. Kirti Makwana	Teacher, Faculty of Management Studies	Member
Dr. Sanskruti Patel	Teacher, Faculty of Computer Application	Member
Dr. Prakash V	Teacher, Faculty of Medical Sciences	Member
Dr. N D Jotwani	Eminent Academician	Member
Dr. A R Jani	Eminent Academician	Member
Dr. S J Bhatt	Eminent Academician	Member
Dr. Mukesh Patel	Eminent Professional	Member
Dr. Maheshbhai G Patel	Eminent Professional	Member
Dr. S H Shrivastva	Eminent Professional	Member
Shri Virendrabhai S Patel	Member Governing Body	Member
Shri H T Patel	Member Governing Body  Member Board of Management	Member
Mr. Ashok R Patel	Advisor	Member
Prof. H J Jani	Advisor	Member
Dr. A V Thomas	Chairman, Board of Studies in Civil Engineering	Member
Dr. Vijay Chaudhari	Chairman, Board of Studies in Mechanical Engineering	Member
Dr. Pragnesh Bhatt	Chairman, Board of Studies in Electrical Engineering	Member
Dr. Trushit Upadhyay	Chairman, Board of Studies in Electrical Engineering  Chairman, Board of Studies in Electronics and	Member
Di. Trusint opaunyay	Communication Engineering	Wichibei
Dr. Amit Ganatra	Chairman, Board of Studies in Computer Engineering	Member
Mr. Parth Shah	Chairman, Board of Studies in Information and	Member
Mil. I di di Silan	Technology	Member
Dr. Manan Rawal	Chairman, Board of Studies in Pharmacy	Member
Dr. Arabinda Ray	Chairman, Board of Studies in Chemical Sciences	Member
Dr. Janki Thakkar	Chairman, Board of studies in Biological Sciences	Member
Dr. R V Upadhyay	Chairman, Board of studies in Physical Sciences	Member
Ms. Kirti Makwana	Chairman, Board of studies in Management Studies	Member
Dr. Dhamendra Patel	Chairman, Board of studies in Computer Science and	Member
Di. Dilamenura i ater	Applications	MCIIIDEI
Dr. Bala Ganapathy	Chairman, Board of studies in Physiotherapy	Member
Dr. Anil Sharma	Chairman, Board of studies in Nursing	Member
Dr. A D Patel	Principal, CSPIT	Member
Dr. Bala Ganpathy	Principal, ARIP	Member
Dr. Anil Sharma	Principal, MTIN	Member



Dr. Amit Ganatra	Dean, Faculty of Technology & Engineering	Member
Dr. Vijay Chaudhari	HoD, Mechanical Engineering	Member
Dr. A V Thomas	HoD, Civil Engineering	Member
Mr. Parth Shah	HoD, Information Technology	Member
Dr. Trushit Upadhyay	HoD, Electronic & Communication	Member
Dr. Pragnesh Bhatt	HoD, Electrical Engineering	Member
Dr. M C Patel	Invitee – Eminent Academicians	Member
Dr. Anuradha Gajjar	IQAC Coordinator	Member
Prof. Naresh Ved	Invitee - Eminent Academicians	Member
Mr. Devang Joshi	Registrar	Member
		Secretary

**Research Council (2014 - 2017)** 

research council	(=011 =017)	
Name	Designation	Remarks
Dr. B. G. Patel	Provost, CHARUSAT	Chairman
Dr. R. H. Parikh	Dean, Faculty of Pharmacy	Member
Dr. R. V. Upadhyay	Dean, Faculty of Applied Sciences	Member
Dr. Amit Gantara	Dean, Faculty of Technology & Engineering	Member
Dr. Govind Dave	Dean, Faculty of Management Studies	Member
Dr. Atul Patel	Dean, Faculty of Computer Application	Member
Dr. R M Patel	Coordinating Ph. D Programmes	Member
Dr. Mayur Sutaria	Associate Professor, ME, CSPIT	Member
Dr. A D Patel	Principal, CSPIT	Member
Prof. D Chenna Reddy	Associate Dean, Infrastructure, Institute for Plasma Research GIDC Bhat, G'nagar	Member
Dr. P. K. Ghosh	Director, Central Salt Marine & Chemical Research Institute	Member
Dr. Sanjay Chaudhary	Professor, Institute of Information and Communication Technology (IICT), Ahmedabad University Ahmedabad	Member
Dr. Anuradha Gajjar	Professor, Dept. of Pharmaceutical Chemistry and Analysis, RPCP	Member
Dr. Pragnesh Bhatt	HoD Dept. of Electrical Engineering CSPIT	Member
Dr. Darshan Patel	Associate professor Dept. of Biochemistry, PDPIAS	Member
Mr. Devang Joshi	Registrar	Member
		Secretary

#### **Finance Committee**

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Sr. No.	Name	Position in Committee
1	Dr. B G Patel	Chairman
2	Shri Kiranbhai I Patel (Comfy)	Member
3	Shri Dhirubhai C Patel (Bakrol)	Members
4	Shri Manubhai P Patel	Member
5	Shri Kaushikbhai N Patel	Members
6	Shri Girishbhai C Patel (Traj / Nadiad)	Treasure Kelavani Mandal
7	Dr. R M Patel	Member
8	Dr. Maheshbhai G Patel	Member
9	Shri Ashokbhai R Patel	Member
10	Mr.Bhavdip C Patel	Member
11	Mr.Devang R Joshi	Member Secretary



#### **HR Committee**

No.	Name	Position in
		Committee
1	Dr. B. G. Patel	Chairman
2	Shri Rohitbhai Patel	Member
3	Mr. Ashokbhai R.Patel	Member
4	Mr.H.T.Patel	Member
5	Shri Pradeepbhai I Patel	Member
6	Dr.Maheshbhai G Patel	Member
7	Dr.R.V.Upahdyay	Member
8	Dr. Kamal Chakravartty	Member
9	Mr. Devang Joshi	Member Secretary

#### **IQAC Committee**

Name o	Designation
Name	Designation
Dr. B. G. Patel	Provost
Mr. Devang Joshi	Registrar
Dr. Harish Desai	Dy. Registrar
Mr. Ashok R Patel	Advisor
Prof. H. J. Jani	Advisor
Prof. Amit Ganatra	Dean, Faculty of Technology and Engineering
Dr. A.V. Thomas	Professor, Department of Civil Engineering
Dr. R.V. Upadhyay	Dean, Faculty of Applied Sciences
Dr. Govind Dave	Principal, I <sup>2</sup> Im
Dr. Atul Patel	Principal, CMPICA
Dr. M. Balaganpathy	Principal, ARIP
Dr. Anil Sharma	Principal, MTIN
Dr. Vijay Parmar	Associate Professor, RPCP
Dr. H.T. Patel	BOM Member
Dr. NareshVed	Former VC, Bhavnagar University
Prof. S.J. Bhatt	Former HoD, PG Department of Mathematics, SPU
Dr. Mahesh G. Patel	CEO, Champion Paints
Mr. Ankit Gandhi	Alumnus
Mr. Vivek Brahmbhatt	Student of CHARUSAT
Mr. Keyur Patel	Student of CHARUSAT
Dr. AnuradhaGajjar	Coordinator, IQAC & Member Secretary
Dr. MayurSutaria	Deputy Coordinator , IQAC



# Part 2

Journey Traversed 2016-17



### Journey Traversed 2016-17

#### **Preamble**

Education does not have a single purpose; it serves multiple objectives. It is a solution; a solution to all problems — be them social, economic, political, technological, or cultural. Knowledge and Skills play a pivotal role in shaping economic growth and ensuring social transformation and empowerment of people. Knowledge, primarily, has to do with education, research, and innovation that shape the future of societies across the world. Importantly, now Technology is at the core in teaching — learning process in higher education.

Higher Education in India has a long history stretching back to the ancient urban centers of learning at Takshashila and Nalanda. The pace of growth of higher education institutions was very slow during the period from 1857 until India got independence in 1947. However, post-independence, the institutes of higher learning and universities have flourished in India making the Indian Higher Education System one of the largest ones.

The Times Higher Education World University Rankings 2016-2017 list the 980 top universities in the world. It includes institutions from 79 countries, represents an elite 5 per cent of the world's higher education institutions. It reports that the best universities in the world are led by a UK university for the first time in the 12-year history. The University of Oxford is the world's number one university, knocking five-time champion the California Institute of Technology (Caltech) into second place. It is the first time a US institution does not take the top spot. However, the North American powerhouse still dominates the list with 148 universities in the top 980 and 63 in the top 200. The rest of the top five is filled by Stanford University in third, the University of Cambridge in fourth and Massachusetts Institute of Technology (MIT) in fifth.

Fortunately, Asia continues its ascent. The world university rankings prove that Asia's improvement in higher education is real and growing. Overall, 289 Asian universities from 24 countries make the ranking and an elite 19 land in the top 200, up from 15 last year. However, India, in particular, has been lagging far behind. However, the fact is that India is making rapid

progress. Finally, now in India, Privatization has been looked upon as an opportunity for national development. Many not-for-profit organizations and corporates have already initiated the establishments of World Class Institutions. Many others have joined hands with the government. One such academic organization rapidly moving towards becoming a World Class University (WCU) is Charotar University of Science and Technology (CHARUSAT).

CHARUSAT has been conceived by **Shri Charotar Moti Sattavis Patidar Kelavani Mandal**. Kelavani Mandal was established in 1994. It has been regarded as a not for profit premier education trust of India. It works with the mission of social upliftment through the spread of educational activities and a vision of providing world class education to the Students at their doorsteps. Kelavani Mandal has a social lineage of more than 122 years from its parent organization Shri Charotar Moti Sattavis Leuva Patidar Samaj–Matrusanstha - known for its dynamic social revolution brought about by initiating Mass Marriages in the Patidar Community on a massive scale.

CHARUSAT has been established by promulgation of Gujarat Private University Act, 2009. It is empowered to confer degrees under section 22 of UGC Act 1956. Presently, CHARUSAT is characterized by 72 programs from UG to Ph D under the tutelage of 8 Institutes, 6 Faculties, 4 Centres / Cells, employee strength of 550, student strength of 6500 and a Capital Outlay of Rs. 150 Crores. They are in the allied disciplines of Engineering & Technology, Pharmacy, Computer Applications, Management, Applied Sciences, Nursing, Physiotherapy, and other Paramedical Sciences.

The year 2016-17 was quite vivacious and chirpy with a lot of activities, initiatives and achievements. Following is a brief report of the academic, Co-curricular, research and Extra-curricular activities and accomplishments.

Gujarat State Non – Resident Gujarati's Foundation, Gandhinagar and Non – Resident Gujarati's Centre, GCCI organized **Non Resident Gujarati Parents Day.**Shri Virendra Patel, one of the Trustees of Kelavani Mandal was invited as the Chief Guest of the function wherein he deliberated upon **Opportunities for NRGs in Education Filed in Gujarat**. Elaborating the mutual



relationship between Diaspora Communities and the Country, he stressed upon *Giving Back to the Motherland* and *Benefitting from the Developments at the Motherland*.

#### **Academic System at CHARUSAT**

CHARUSAT curriculum and pedagogy correspond with the industry needs and aspire to reach International Standards. It strives to prepare students for diverse and interdependent global competitive world. Academic System at CHARUSAT ensures that academics value the pursuit of excellence in teaching as much as in scholarship and research. In addition to regular classroom interactions, Industrial Visits, Study Tours, Expert Lectures, Interactive IT enabled Teaching Practice and Continuous Evaluation also form an integral part of innovative pedagogy at CHARUSAT.

Further, all education programs are semester based. Learning is based on Credit System and evaluation on Grading System. A student needs to study sincerely all through the course to get a good Cumulative Grade Point Average (CGPA). Further, Choice Based Credit System and Relative Grading System have also been implemented.

#### **New Institute and Programs**

CHARUSAT has launched a new engineering institute called **Devang Patel Institute of Advance Technology and Research (DEPSTAR)**. It will start its academic year from 2017-18. DEPSTAR has come into existence through magnanimous donation of Rs. 11 Crores from Shri Devang Patel (IPCO WALA). It is noteworthy that IPCO Family also patronizes the Management Institute at CHARUSAT. Very recently, DEPSTAR has got approval by All India Council for Technical Education (Statutory Apex body). Initially, it offers 3 B Tech Programs in Computer Engineering, Computer Science & Engineering, and Information Technology each with an annual student intake of 60.

M. Sc. (Mathematics) has also been launched at **P D Patel** Institute **of Applied Sciences** with an annual intake of 20 seats.

Further, Charotar Institute of Paramedical Science (CIPS) has started M. Sc. in Medical Laboratory Technology with an intake capacity of 40 seats.

Two more programs have also been started at **Smt. Chandaben Mohanbhai Patel** Institute **of** 

**Computer Applications.** They are B Sc (Information Technology) and Post Graduate Diploma in Computer Application. They have annual student intake of 60 and 30 seats respectively.

All these programs will start from the academic year 2017-18.

#### **Major Achievements**

# Best University in the Use of Technology in Teaching – Learning

The World Leadership Federation, powered by Collabera organized the **Middle-East Asia Leadership Summit and Award** on 23<sup>rd</sup> February, 2017 in Dubai. The event was organized to honor the leaders for their outstanding contribution towards the growth in Economic, Educational, Social and Leadership Development. Winners from 150+ categories from across the globe were selected. From among all CHARUSAT has been awarded "**Best University in Use of Technology in Teaching-Learning Practice**".

#### CEE Excellence Award for Innovation in Teaching-Learning Practices

Chandubhai S Patel Institute of Technology under Faculty of Technology and Engineering has been awarded with CEE Excellence Awards - Innovation in Teaching-Learning Practices. The Award was given away by Shri Manish Sisodiya, Deputy Chief Minister, Delhi on 3<sup>rd</sup> September 2016 in Delhi. Confederations of Education Excellence (CEE) being very active in the field of education, felicitate the values, hard and innovative work of teachers, institutes and universities by appreciating and rewarding them every year. This year Confederation of Education Excellence (CEE) organised a National Seminar on "Indian Philosophical Foundation for Modern Education" on 3<sup>rd</sup> September 2016 at Crowne Plaza Hotel Rohini, Delhi.

#### **Distinguished College Award**

Chandubhai S Patel Institute of Technology has also been awarded with **Distinguished College Award** at the CSI Tech Next India 2017 – Awards to Academia. Computer Society of India-Mumbai (CSI) in association with FOSSEE (Free and Open Source Software for Education) & Spoken Tutorial, IIT Bombay hosted a 2-day Annual Conference and awards "Tech Next India 2017" on 14th & 15th Jan 2017, at the Victor Menezes Convention Centre, IIT Bombay. The awards



recognized the very best in the Academics and rewarded the Distinguished Principal, Distinguished HoD, Distinguished Professor, and Distinguished College for significant contribution in the Academics. Distinguished College Award is basically conferred upon those who are ranked the best by their committee and jury. Charusat has been instrumental in implementing Industry Academia Partnership. Also Charusat has been instrumental in encouraging faculties for taking recognized certifications and trainings of International standards in various basic and advanced languages through CSI & Professional Bodies.

#### **Research Projects**

# Collaborative Research Project by Royal Academy of Engineering, UK

A Collaborative Research Project entitled Industry-Academia Collaborative Project to Address System Wide Impacts of Renewable Energy Sources in Engineering Program has been awarded by Royal Academy of Engineering, UK under the Newton-Bhabha Fund to M&V Patel Department of Electrical Engineering, C S Patel Institute of Technology. The collaborators for the projects are CHARUSAT, Cardiff University (UK), Uttar Gujarat Vij Company Ltd. and Sigil India Services Private Ltd. The total amount of project cost is £ 95,792 and the duration of the project is of 2 years.

The overall objectives for the program is to strengthen the capacity of engineering higher education and research institutions to carry out teaching, research and knowledge-related activities through partnership with industry and UK stakeholders. The project will be helpful to enhance industry input into engineering curricula and educational practice in CHARUSAT as well as other Indian universities to improve the imparting of practical engineering skills and enhance graduate employability. It will also strengthen the collaboration in research and knowledge-sharing among Indian university, industry institutions and UK University.

The knowledge sharing activities will be planned through faculty exchange program between CHARUSAT and Cardiff University. Presently, Dr. Praghnesh Bhatt (Professor & Head) and Dr Bhinal Mehta (Associate Professor) of Electrical Engineering of CHARUSAT are on a visit to Cardiff

University to have the exposure regarding best practices in engineering education and to strengthen the collaborative research activities. Dr Jianzhong Wu (Professor), Dr Wenglong Ming (Lecturer) and Dr Chao Long (Post Doc Researcher) of School of Engineering, Cardiff University will visit CHARUSAT to build the research capacity and to conduct training programs for researchers, industry personnel and academicians. The state-of-art laboratory with solar and wind power generation will be developed to impart best education in the area of renewable energy.

# Research Projects from Department of Atomic Energy, Govt of India

Charusat Space Research and Technology Center (CSRTC) has recently received four projects from Institute for Plasma Research (IPR), Bhatgam, Gandhinagar, Department of Atomic Energy, Govt of India. CSRTC has agreed to work on four developmental projects relating to Microwave / Digital Electronics, IPR DAE has earmarked more than Rs. 1 crore funding for CSRTC. As a result of these projects. the students of Electronics & Communication, IT, Computer and Mechanical Engineering will be exposed to high tech work relating to Microwave Communication Systems at CHARUSAT Campus itself. It is worth noting that CHARUSAT has already signed an MoU with Space Application Center (SAC), Ahmedabad for five years and it is currently working on technology related experimental projects.

# Projects from Department of Science and Technology (DST), Govt. of India

05 Projects on Entrepreneurship Awareness Camp (EAC) have been assigned to Indukaka Ipcowala Institute of Management (I2IM) by National Science & Technology Entrepreneurship Development Board (NSTEDB). The objectives of the projects are to accelerate the process of promoting and strengthening entrepreneurship amongst science and technology target groups of students, researchers, faculty members and the youth of rural/urban areas of the region. As a part of this the Entrepreneurship Awareness Camp (EAC), special training Entrepreneurship Development is imparted to the aspirant Entrepreneurs. Major areas include: Business Plan, Charms of becoming an Entrepreneur, its stages and steps, identification of Entrepreneurial opportunities and competencies, motivation and self-assessment, creativity and innovation as well as interface with some renowned Entrepreneurs. It is worth noting that



CHARUSAT has initiated such activities since years and under the coordination of I<sup>2</sup>IM, major activities carried out under EDIC during last year are EAC (Entrepreneurship Awareness Camp) for Students (1443 participants), EOP (Entrepreneurship Orientation Program) for Faculty Members (227 participants), EFW (Entrepreneurship Facilitator Workshop) for faculty members (180 participants) and SPP (Student Participation Program) since its inception.

#### Students' Achievements

# OJASWAT at INDIA'S BIGGEST FORMULA STUDENT COMPETITION 2016

Continuing its tradition, CHARUSAT has achieved laurels at national level for formula racing car developed by its students, known as OJASWAT. Team OJASWAT has achieved over all 5th Rank and 2nd Rank in the Skid pad Test in the fifth edition of the SUPRA SAE India Formula Student Competition 2016. Team OJASWAT is a group of 25 young engineers (19 from Mechanical Engineering, 5 from Electrical Engineering and 1 from Electronics and Communication Engineering) from Chandubhai S Patel Institute of Engineering and Technology. The event had a record participation from 3,500 engineering students from 129 teams in the SUPRA SEA India Students Formula 2016 design competition held at India's First F1 Track Buddha International Track at Noida between 4 and 10 July, 2016. The team from CHARUSAT participated consecutively for the fifth time in this national level competition organised annually by SAE India, SUPRA. It is a platform for students to apply their engineering skills to design and construct a Formula category vehicle as per defined performance and safety specifications.

#### 3rd Position at India @ 75 Hackathon

Pratik Lalani, a 4<sup>th</sup> Year Information Technology Student of CSPIT has secured the 3<sup>rd</sup> Position at India @ 75 Hackathon 2017 which was organized at Pragati Maidan on 3<sup>rd</sup> and 4<sup>th</sup> February, 2017. It also coincided with International Engineering and Technology Fair (IETF) 2017. He had made an innovative solution for upliftment of farmers and set the market fit product for that hackathon. This hackathon was judged by Suhel Bidani (Lead at 'BILL & MELINDA GATES foundation') & Rohit Kumar Ships tone (Advisory member at CII, New Delhi).

The objective of Hackathon was to promote

technology entrepreneurial spirit among young enthusiasts and provide them a platform to showcase their talent related Agriculture. to Education. Governance, Health, Skills, Urbanization, Volunteering theme. Entrepreneurs, start-ups, students, professionals, freelancers across all age groups participated in Hackathon 2017.

#### 10th Gujstate Conphycs 2016

Ashok & Rita Institute of Physiotherapy (ARIP), a constituent of CHARUSAT, became the overall Champion in the 10<sup>th</sup> Gujstate Conphycs 2016 held at Surat and organised by Sarvajanik College of Physiotherapy. A total of 1500 participants from 32 colleges across the state of Gujarat participated. A total of 21 events including academics, sports and cultural were organised for the faculty and students. ARIP Students won almost in 9 events.

#### Khel Mahakubh 2016

Government of Gujarat organized **Khel Mahakubh 2016**. CHARUSAT University participated in many games. Subsequently, the students secured the following positions:

- ➤ Badminton Doubles (Champions): Vatan Agrawal and Vatsal Patel (I²IM) Kheda District level
- ➤ Badminton Single (Runner up): Yash Bhatt (CMPICA) Kheda District level
- ➤ Badminton Doubles (Third Position): Vatsal Talati (CL, CSPIT) and Pankil Talati Anand District level
- Kho-Kho Girls (Champion): MTIN Girls' Kho-Kho Team - Taluka Level
- ➤ Volleyball Girls (Champion): CHARUSAT Volleyball Girls' Team Taluka Level
- Volleyball Boys (Runners up): CHARUSAT Volleyball Boys Team - Taluka Level

#### **Faculty Achievements**

# Dr. Vijay Parmar appointed as Vice-President APTI - Gujarat Branch

Association of Pharmaceutical Teachers of India (APTI) is providing national platform for dealing with all issues related to Pharmacy Teaching and Education in India. Online election was held in the month of August for constitution of APTI- State Branches. Dr. Vijay Parmar of Ramanbhai Patel College of Pharmacy, CHARUSAT was elected as State Vice President. His tenure for the



post is next three years. Dr. Vijay Parmar has more than ten years of teaching experience.

# Dr. V Prakash (PT) selected as one of the top 20 candidates for World Stroke Congress

Very recently, Dr. V Prakash (PT) has been selected as one of the top 20 candidates for World Stroke Congress (WSC) 2016 under the **Young Investigator Award**. As part of this ward, WSC 2016 will be providing the following benefits:

- 1. Complimentary registration for the Congress
- 2. 2 nights' accommodation in a pre-selected hotel
- 3. US\$500 travel grant (transferred after the Congress)

This award is given for the research paper, a part of the PhD work entitled: Are Functional Outcome Measures used in Stroke Rehabilitation Appropriate for Patients with Stroke in India? under the theme **Outcomes and Quality of Care.** 

#### **Unique Initiatives and Practices**

#### Dr. APJ Abdulkalam Chair

Dr. APJ Abdul Kalam Chair has been established at CHARUSAT. Padma Shri awardee A S Kiran Kumar, Chairman of the Indian Space Research Organization (ISRO) and Secretary of the Department of Space was invited to deliver the Inaugural Lecture on **Space Technology and Development**.

#### **Endowment Chair**

**Endowment Chairs** have been established at each constituent institute to invite scholars and eminent academicians from outside and interact and guide the faculty and research. In all, University has established 14 Endowment Chairs under which 32 (National – 22, International – 10) experts have been invited.

#### **SS Bhatnagar Lecture Series**

In the fond memory of a renowned and visionary Indian scientist, Sir Shanti Swaroop Bhatnagar, **S. S. Bhatnagar Lecture Series** has been started at CHARUSAT by PD Patel Institute of Applied Sciences. Dr. Bhatnagar was the founder director general of the Council of Scientific and Industrial Research (CSIR) and also the first Chairman of the University Grant Commission (UGC). The lecture series intends to invite speakers from various fields of science and engineering and who are recipients of the prestigious SS Bhatnagar

Award. So far, two lectures have been organized under the series. The inaugural lecture was organized on 8<sup>th</sup> and 9<sup>th</sup> January, 2016 wherein Prof. Roop Mallik, Department of Biological Sciences, TIFR, Mumbai deliberated upon **Tiny Machines, Big Tasks**. The second lecture was by Prof. Suman Chakraborty, Mechanical Engineering, IIT Kharagpur on **New Generation Microfluidic Devices: Towards Make in India.** 

# Entrepreneurship Development and Incubation Centre (EDIC)

Indukaka Ipcowala Institute of Management (I<sup>2</sup>IM), a constituent of CHARUSAT has succesfully organized 5 consecutive Entrepreneurship Awareness Camp (EAC) during 2016-17. In this series, around 625 Final year students of Engineering, Pharmacy, Physiotherapy and Nursing Program have been taught the lessons of Entrepreneurship from more than 36 Resource persons.

It is worth noting that I<sup>2</sup>IM has received 05 projects from National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology (DST), Govt. of India to conduct Entrepreneurship Awareness Camp (EAC). Renowned industrialists, entrepreneur experts and trainers addressed and motivated aspirant student entrepreneurs for entrepreneurship.

Students have generated 582 Business ideas during the awareness camps. The potential business ideas will be allotted mentors and angel investors to incubate the business idea to make ready for its commercialization.

For the academic year 2017-18, National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology (DST), Govt. of India have sanctioned Rs 6 Lakh to conduct 5 to conduct Entrepreneurship Awareness Camp (EAC), Technology based Entrepreneurship Development Programme (TEDP) and Women Entrepreneurship Development Programme (WEDP).

#### **CHARUSAT Android Application**

"Charusat Application" - Android based smart phone application for Charusat employees and student has been developed and made available on Google play store with more features now. Following are the features of App:



- Employee Leave Management
- Principal / Head Leave Approval
- Salary Information
- Employee Attendance (Day wise in-time, Outtime)
- Teaching Staff Schedule (3 Days)
- University Examination Result (Student Login)
- Student Attendance (Teacher can fill directly in mobile / Student can view the attendance)
- Time table (3 Days, Student login)
- Fees Status (Student Login)

#### Harvesting Solar Energy

A 100 kWp capacity solar photovoltaic (SPV) power plant has been installed on the roof of Mechanical and Civil Engineering Building of CSPIT, CHARUSAT by TATA Power Solar Systems, Bangalore. It was installed at a cost of INR 58.8 Lakhs. The generation of electricity from the SPV power plant is being monitored by automatic data logging system (Solar Log) through LAN. The total solar electricity generated in a span of five months was recorded at 64,060 kWh (equivalent to about 64,000 units).

#### E-governance

A unique **E-governance System** is in place at CHARUSAT. It is the application of Information and Communication Technologies (ICTs) for delivering services, exchange of information & knowledge, and integration of various stand-alone systems. All the processes at CHARUSAT are synchronized through E-governance. For example, various student related data like students' database as per the admissions given, fees record, results, and transcripts are synchronized. Similarly, integration between Accounts and HR Sections through E-governance gives a comprehensive picture of an employee's service, salary and gradation, and leave. This helps generate collective reports.

# Cloud Computing | Cloud Ready Infrastructure: First of its kind in Gujarat

To utilize IT resources and infrastructure of CHARUSAT for IT requirements of others, it has implemented both - Private and Public cloud. All Institutes and department level server applications and campus e-governance facilities are being migrated to central cloud ready environment at WIN Cell through Private cloud. Other Moti27 organizations like Matrusanstha located at Piplag, Kelavani Mandal located at Anand and Hostel located at Vidyanagar are centrally connected through Public Cloud and hence, their server level applications

and other IT requirements are facilitated centrally. Entire setup is managed through VCenter application at WIN Cell.

#### **Major Events**

#### 6th Convocation

The **Sixth Convocation** of Charotar University Science & Technology was held on December 24, 2016. Dr. M I Patel, Former Sheriff - Mumbai, Renowned Technocrat and Industrialist based at Mumbai, and Chief Patron: Smt. Chandaben Mohanbhai Patel Institute of Computer Applications, CHARUSAT, delivered the Convocation Address on this auspicious and landmark occasion. Prof. Krishan Lal, President, The Association of Academies and Societies of Science in Asia (AASSA) and Former Director, National Physical Laboratory, New Delhi graced the occasion as the Guest of Honour, At Sixth Convocation, 1731 Graduating Students were awarded degrees of M.Tech, M.Pharm, M.Sc, MBA, PGDM, MCA, B.Tech, B.Pharm, BPT and B.Sc (N). 29 students with highest CGPA were awarded gold medals at the Convocation. 21 Ph D Scholars were also awarded degrees.

#### **Liberal Arts**

Established with a mission to educate and prepare students to realize their potential to become responsible citizens in a diverse and increasingly interdependent global world, Humanities and Social Sciences (HSS) has been established under Faculty of Management Studies (FMS) with the objectives of providing holistic exposure to students. Responding towards the demands of today's world by producing analytical thinkers and creative professionals, Courses on Liberal Arts like Painting, Photography, Sculpting, Pottery and Ceramic Arts, Media and Graphic Design, and Art and Craft are offered in workshop mode to all first year students of UG programs of 8 different institutes of CHARUSAT. The third consecutive year, the workshop on Liberal Arts was organized from September 27-30, 2016 in which 1250 students benefited. Some of the renowned experts were Mr. Dilip Oza and Mr. Bhadrash Shukla from National Institute of Design (NID); Mr. Suresh Parekh, Mr. Mukesh Acharya, Mr. Sunil Adesara, Gujarat's most award winner photographers; Mr. Kanu Patel, Painter, Artist and Actor and other National Award Winner Painters, Wild Life Photographers, Designers, and Teachers from CVM College of Fine Arts, V V Nagar and freelance artists.



#### **Earthquake Protection of Structures**

CHARUSAT hosted a six-day training program on "Earthquake Protection of Structures" from May 22-27, 2017 to impart training to the faculty members drawn from various engineering colleges. The program was organized by M. S. Patel Department of Civil Engineering, a constituent of Chandubhai S. Patel Institute of Technology. A panel of eminent experts from reputed institutions like IIT Delhi, IIT Bombay, IIT Gandhinagar, MNIT Jaipur, SVNIT Surat, L&T -Chiyoda Limited, Institute of Seismological Research, The M. S. University of Vadodara, etc., conducted various training sessions. The program received enthusiastic response and over forty participants underwent training.

# Recent Trends in Advanced Nanomaterials: Synthesis and Characterization

CHAMOS Matrusantha Department of Mechanical Engineering, Chandubhai S. Patel Institute of Technology (CHARUSAT) organized a Two-Day workshop on Recent Trends in Advanced Nanomaterials: Synthesis and Characterization in association with Gujarat Council on Science and Technology (GUJCOST), Govt. of Gujarat on February 15-16, 2017. Research scholar and faculties from various institutes of Gujarat participated in this workshop. Experts talk and Laboratory session was organized to explore the various methods of synthesis and characterization of nanomaterial along with the applications.

#### Sardar Patel Memorial Lecture

CHARUSAT has initiated the unique tradition of organizing **Sardar Patel Memorial Lecture** every year. 5th Sardar Patel Memorial Lecture was organised on 66th Punyatithi of Sardar Vallabhbhai Patel. Dr. Naresh L Ved, Former Vice Chancellor, Bhavnagar University delivered the Lecture on "Sardar Patel: Architect of United India". In this series, the speakers in the previous years include luminaries like Dr. B. G. Patel, Dr. Subhash Khachar and Dr. Rizwan Kadri, and Dr. Vidyut Joshi, a renowned writer, thinker and former Vice Chancellor of Bhavnagar University.

#### Parents' Meet

Every year / semester, all the institutes of CHARUSAT organize Parents' Meet wherein all the parents of the students are invited and briefed about the progress of their ward and the difficulty they face. On the occasion,

Parents also interact with the teachers. This year too such Meets were organized by all the Institutes.

#### **Annual Day Celebrations**

Institutes on CHARUSAT Campus celebrated their Annual Days. As a part of the celebrations, reports (of the initiatives and activities) of the institutes were presented by the respective Principals and students were felicitated for their academic, co-curricular and extra-curricular achievements with (Cash) Prizes, Trophies and Certificates.

71st Independence Day and 68th Republic Day were also Celebrated on CHARUSAT Campus.

#### **Student Support and Progression**

# Seminar on Entrepreneurship Development and Career Planning

A Seminar on Entrepreneurship Development and Career Planning was organized on 15th September 2016 for B. Pharm & M. Pharm students by Ramanbhai Patel College of Pharmacy at CHARUSAT. Following eminent Speakers elaborated upon the subject:

- Mr. Purvish Patel, Director-Packaging Solutions Pvt. Ltd.
- Dr. Geetika Saluja, Head- Centre For Excellence-Varmora Group
- Mr. Gaurav G Dharani, Proprietor- Glowel Cosmetics, Changodar
- Mr. Rakshit Shah, Dy. General Manager- Purchase
   & Production, Zydus Wellness Ltd

#### Cognizance 2016 – Tech Fest

COGNIZANCE 2016 was organized on 28th & 29th September, 2016 at CHARUSAT. The festival garnered participants from various engineering colleges of the nation. More than 2500 students participated from different engineering colleges of Gujarat. Primary objective behind COGNIZANCE 2016 was to provide a platform to young engineers for the purpose of enhancing their technical abilities and to showcase their talents. Following activities were organized:

- 22 Technical events.
- 3 Non Technical Events and
- 1 Special Events.
- Events, and
- Guest Lectures



#### **IGNITE - 2017**

IGNITE -**2017**. A National level Computer Technocrats' Symposium was organized by Smt. Chandaben Mohanbhai Patel Institute of Computer Applications (CMPICA) on 18th February, 2017. IGNITE, the first of its kind, was initiated in the year 2010 and since then, it is organized every year with higher impact and participation. It provides a tremendous opportunity for students to participate, compete and interact with students from other prestigious institutions. This time, more than 920 participants from 41 different under graduate and post graduate colleges across the Gujarat state participated in this event. Several events like Expert Session on "IOT", Code Swap, Ultimate coder, Kick N Climb, Mission SQL, DigiWeb, MouseLess, Brain Scratch, CS Roadies, Pocket Tanks, NFS etc. were organized that provided a platform to the students to get recognition of their hitherto hidden talents.

#### **CONVEGNO 2017**

CONVEGNO 2017 - A Management Meet was organized by Indukaka Ipcowala Institute of Management with an objective to provide platform to aspiring managers to enable them to showcase their talents, skills and knowledge and nurture them to be held on February 3-4, 2017. More than 1500 students of management from various institutes across the country are participating in this gala management meet.

As a prelude to CONVEGNO 2017, an Essay Competition was also organized on February 2, 2017 wherein participants expressed themselves on varied topics like Democracy without Discipline is Meaningless, Women Empowerment: Challenges and Prospects, Cashless Payment System: Challenges and Opportunities, More than 120 Crores Indians: A Gigantic Problem or a Sea of Opportunities, Is India a 'Soft' Nation, Work is Worship, Economic Growth without Environment Damage: A Mirage or Reality, English: The Lingua Franca of the Modern World. On the occasion was also organized 300th MANAS by the Entrepreneurship Guru Dr. V. G. Patel (nominated for "Padma Shri" (for Literature & Education) on India's 68th Republic Day by the Government of India) who is presently the Chairman, Consumer Education and Centre, Former Founding Research Director, Institute Entrepreneurship Development of India, Former Economic Advisor, GIDC, Ahmedabad.

## 28th State Level Inter – Collegiate Competition "GIBION"

P. D. Patel Institute of Applied Science, a constituent of Charotar University of Science and Technology (CHARUSAT) hosted 28th State Level Inter – Collegiate Competition "GIBION (Gujarat Integrated Bio Networks). This Competition was jointly organised by Gujarat State Biotechnology Mission, Department of Science and Technology, Gandhinagar and J. J. College of Science, Nadiad and P. D. Patel Institute of Applied Sciences. In this event, More than 800 students and 100 faculties from 30 colleges of Gujarat participated.

#### **PHARMABATTLE 2017**

Ramanbhai Patel College of Pharmacy (RPCP), a constituent institute of Charotar University of Science and Technology (CHARUSAT) organized PHARMABATTLE 2017 - A Cricket and Badminton Tournament during January 18-20, 2017. In all, 14 Institutes and 270 students of Pharmacy from various institutes across the state participated in this Mega fest. In this battle, mainly two events are organized: Cricket for boys and Badminton tournament for girl participants. Total 60 female candidates participated from all Colleges in Gujarat in Badminton Pharmacv Tournament. Similarly, in Cricket, there were 14 teams across the Gujarat. This is the third consecutive year that RPCP organized state level Pharma Battle.

#### **Charusat Girls' Hostel Students' Competition**

Annual Sports Extravaganza – Play to win – of the Girls' Hostels of CHARUSAT was celebrated on February 12, 2017. It was organized with the theme - WORLD IS ONE FAMILY. Almost 450 girl students of CHARUSAT campus girls' hostels participated in the event. The students displayed a wide array of colourful and reverberant events such as 80 Mt. Running, Sack Race, Smart Potato Collection Race, One Minutes Skipping, Invert Chess, Softball Throw, Ball Shooting, Searching Coin and the main attraction was a final game tug-ofwar. The winners and runners up were also awarded with the trophies.

#### **MOCK GUJCET @ CHARUSAT**

CHARUSAT organized Mock GUJCET for the 12<sup>th</sup> Science students on April 29, 2017 in which more than 500 students of CHAROTAR region appeared for the test. More than 50 Students of the University with 20 faculty members conducted a free of cost mock test ten days ahead of real test. This test was aimed at



# EIGHTH ANNUAL REPORT 2016-17

helping HSC students to get acquainted with the upcoming test for admissions to undergraduate programs in Engineering, Physiotherapy, Nursing and Pharmacy. Through the Mock GUJCET, aspirants learned the lessons of attempting multiple choice questions (MCQs) and time management while appearing for the real test. Expert Teachers of Best Schools of Gujarat had set the mock test papers on Physics, Chemistry, Maths and Biology. Along with the test Career and Admission Counseling seminar was also organized for the students and parents of visiting

students. Dr. A D Patel, Principal, CSPIT and Dr. Anuradha Gajjar, Principal, RPCP addressed the gathering. It is worth noting that CHARUSAT has been organizing the tests for last five years now.

#### **Future Outlook**

With a present capital outlay of Rs. 150 crores and a projected one of Rs. 250 crores, CHARUSAT fosters an aspiration of being a **World Class University**. It strives, initially, to be in the league of Top **20 Universities at National Level**.



# Part 3

### Financial Statement of the Year

Audit Report
Balance Sheet
Income and Expenditure Account



#### B. C. PATEL & CO. Chartered Accountants

Desai Building, Mayfair Road, Anand – 388 001.

#### : AUDIT REPORT :

For the year period ending 31st March 2017 in the matter of

#### CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Regi. No. GH / SH / 24 / GPU - 2009 - 321 - Kh (1) Dt: 24/07/2009

We have audited the annexed Schedules VIII & IX of the above Trust and report that;

- (A) The accounts have been maintained regularly and in accordance with the provisions of the trust act rules.
- (B) The receipts and disbursements are properly and correctly shown in the books of accounts.
- (C) The cash balance and vouchers in the custody of the Registrar / Finance Officer were in agreement with the accounts on the date of audit.
- (D) All books, deeds, accounts, vouchers, other documents like receipt book register, fixed deposit register and other reports required by us were produced before us.
- (E) An inventory of the movables as certified by the trustees has been maintained.
- **(F)** The Registrar **Devang Joshi** required by us appeared before us and furnished the necessary information required by us.
- (G) No property or funds of the CHARUSAT were applied for any other object or purposes - the objectives of the University.
- (H) The amounts outstanding for more than one year are Rs. NIL and the amount written off are Rs. NIL.
- (I) For all repairs or construction involving expenditure exceeding Rs. 50000/tenders have been invited.
- (J) No money of the University has been invested contrary to the provisions of section 35.
- (K) No alienations of the immovable property contrary to the provision of section 36 have come to our notice.

#### Remarks:

This report includes the accounts of CHARUSAT and its Constituent Institutions, Centers and Hostels.

ANAND.

DATE: 07th APRIL 2017

B. C. PATEL & CO. Chartered Accountants



		Bala	ance Sheet as on 31st	Balance Sheet as on 31st March 2017			
Funds & Liabilities	Sch.	Amount Rs.	Amount Rs.	Assets & Receivables	Sch.	Amount Rs.	Amount Rs.
		181684062.00 734870280.00 53310305.00 24687374.95	994552021.95	Assets Gross Block:- Assets Block Add: During the Year Less: Write Off	12	514027147.55 72058684.28 246107.00	585839724.83
	8Z 6Z 101Z	44733613.00 18652700.00 95002729.77 12819837.00	171208879.77	Deposit & Advances: Fixed Deposit [GuM+B.c.+ B. Phy.+B.opto] Fixed Deposit [Gold Medal] Fixed Deposit [Short Term] 171208879.77 Fixed Deposit [Endowment Fund] Others Deposits 334046405.00 Advance Expenses	23 24 24 25	30055807.31 12732998.00 81712297.00 170505794,54 2516990.70 28383320.00	300362207.55
				Receivable A/C.:- Receivable A/C. [T.D.S + Misc.]	92		3839989.20
Creditors & Other Liabilities:- Students Deposit	112	71503988.25		Kelavani Mandal:- Charotar Moti Sattavis P.K. Mandal			90465404.00
	212	317437.00 317437.00 26462527.40 934831.00	99533724.65	Closing Stock:- Closing Stock [ Uni. Store]			828181.53
				Cash & Bank Balance:- As per Schedule	27		31670267.56
				Income & Expenditure A/c.:- Previous Year Add:- Current Year		506691200.22	586335256.70
TOTAL			1599341031.37	TOTAL			1599341031.37
20	3	V,		G CHANA	Ex	Examined & Found Correct.	Correct.
Dr. B. G. Patel	. Patel		Surendra M Patel President	SHOT SECRET OF SHOT SHOT SHOT SHOT SHOT SHOT SHOT SHOT	Ch.	B. C. Patel & Co. Chartered Accountants, Anand	ints. Anand

IE Page 1 of 2

CHAROTAR	UNI	VERSITY OF	CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY		CONSOLIDATED
Income & Expenditure	Acco	unt for the Peri [Consol	Income & Expenditure Account for the Period from 1st April 2016 to 31st March 2017 [Consolidated]	7	
Income	Sch.	Amount (Rs.)	Expenditure	Sch.	Amount (Rs.)
Fees Income:-			Education Related Expenditures:-		
Fees Income	232	686544042.40	586544042.40 Salaries & Allowances	Z14	323643523.00
University Exam Fees Income	Z33	11319200.00	11319200.00 Staff Development & Training Expenses	Z15	3853348.00
Other Course & Project Income	234	677502.14	677502.14 Recruitment Expenses		1069532.00
Others Income	235	23579886.24	23579886.24 Students Welfare & Training Expenses	Z16	18498090.22
Gold Medal F. D. Interest Income	236	942410.00	942410.00 Lab. Dev. & Consumable Expenses	Z17	19849644.41
Stationery & Consumable Uni. Store		571045.32	571045.32 Seminar & Workshop Expenses	Z18	4416150.45
Various Scholarship Support		12295050.00	12295050.00 Learning Resources Expenses	Z19	16290131.68
Chamos Charusat M-C-M Scholarship		12476500.00	12476500.00 R & D Expenses	Z20	3493171.00
			CHARUSAT Uni. Exam Expenses	Z21	10797094.50
			Affiliation/ Accreditation/ Approval Expenses	222	4230426.00
			Admission Process Expenses		3210964.00
			Convocation Expenses		3897828.00
			Chamos Charusat M-C-M Scholarship Expenses		12476500.00
			Various Scholarship Expenses	223	51073685.00
			Rural Education Activity Expenses		82194.00
			Administrative Expenditures:-		
			Stationery & Printing Expenses		3287215.70
			Travelling & Transportation Expenses	224	5208222.00
			Electricity Expenses		5973113.00
			Postage & Telephone Expenses		523780.00
			Audit & Legal Expenses		264000.00
			Advertise & Promotional Expenses		4599885.50
		S TELES	Building Cleaning Expenses		8839395.00
		C CHANG	Security Expenses		4663775.00
		e Mem No.	Hospitality Expenses		1966457.00
		19 32231 /S	Miscellaneous & Other Expenses	225	2472098.22
		Service Control	Annual Report Expenses		34980.00
			Bank Interest Expenses [F.D.O.D]		202730.00

CONSOLIDATED

CHAROTAR	UNI	/ERSITY OF SCI	CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY		
Income & Expenditur	e Acco	unt for the Period fror [Consolidated]	e & Expenditure Account for the Period from 1st April 2016 to 31st March 2017 [Consolidated]	17	
Income	Sch.	Amount	Expenditure	Sch.	Amount (Rs.)
			Capital Related Expenditures:- Insurance Premium Expenses General Maintenance & Repairing Expesnes Legal Consultancy Charges Electric Main. & Repairs Expenses Garden / Campus Environment Expenses Depreciation Expenses Interest on Capital Investment Expenses Patent & Trade Marks Registration Fees	226 227 228	733775.00 6905210.50 184850.00 2524849.00 13048382.00 51967475.00 71254000.00
Excess of Expenses over Income		79644056.48	Research & Development:  Research & Development Expenses to KCP R&D Uni. Development Expenses  Rural Development Expenses [CREDP]  Human Resource Deve. Expenses [HRDC]  Space Technology Research Expenses [CSRTC]  Development Reserve [Furni & Equip.]	230	15140000.00 33345000.00 3000000.00 1225000.00 2141667.40 111440000.00
TOTAL		828049692.58	TOTAL		828049692.58
Devang Joshi B. G. Patel Provost		Surendra M. Patel	PATEL OF ON ANATION OF STATE O	& Found C	Examined & Found Correct  (Marie & Co.  B. C. Patel & Co.  Chartered Accountants, Anand

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# Part 4

A Pictorial Narrative of the Year CHARUSAT in News



# **A Pictorial Narrative of the Year**



6th Convocation @ CHARUSAT - Dignitaries on the Dais



6th Convocation @ CHARUSAT – Dignitaries in the Procession



6th Convocation @ CHARUSAT - Dignitaries Lighting the Lamp



6th Convocation @ CHARUSAT - Digree Awarded by the Guests



NAAC A Grade Celebration@ CHARUSAT - Dignitaries on the Dais



NAAC A Grade Celebration@ CHARUSAT - Dignitaries, Guests and CHARUSAT Family



Shri Nagin Patel, President, Matrusanstha and CHRF - Felicitated with National Award





Sardar Patel Memorial Lecture @ CHARUSAT



Dignitaries unveiling the Souvenir during Congizance - Annual TechFest of Engineering Institute



Award Ceremony @ CMPICA during Technical Festival





Victory Celebration by Physiotherapy Institute



Leadership Award - "Best University in Use of Technology in Teaching - Learning Practice" in Dubai



CEE Award to CSPIT - CHARUSAT





Dignitaries and Guests during a Workshop



Management Students on a Visit to Hansa Mehta Library at MS University, Baroda



Faculty / Research Scholar Interaction @ Management Institute under the Endowment Chair



Dignitaries on the Dais @ Annual Day of the Pharmacy Institute



Dignitaries Lighting the Lamp to Inaugurate a Conference at Nursing Institute









Magnanimity of CHARUSAT Family: Donation for the Blind



NSS Rally: Organ Donation Awareness



### **CHARUSAT** in News

Divya Bhaskar 27/02/2017

🕨 સ્પર્ધા રાષ્ટ્રીયકક્ષાની | ચારૂસેટ યુનિવર્સિટીના ઇલેક્ટ્રિકલ એન્જિનિયરીંગના વિદ્યાર્થીઓએ ઇન્ટેલી ગ્રીડ પ્રોજેક્ટ તૈયાર કર્યો હતો

# જિ કંપની એક જ સ્થળેથી તમામ મીટરના રીડીંગ લઇ શકશે

भारहर न्यूज | आशंह

વીજ કંપનીને મીટર રીડીંગ માટે ઘેર ઘેર જવું નહીં પડે અને એક જ સ્થળેથી મીટર રીડીંગ લઇ શકશે. એટલું જ નહીં કોઇ સ્થળે વીજ્યોરી થતી હશે તો પણ પકડી શકાય અને લોડ શેરીંગથી ગ્રીડની પાવર ક્વોલિટી સુધારી શકાય તેવો ઇન્ટેલી ગ્રીડ (ઇન્ટેલીજન્ટ જનરેશન, ટ્રાન્સમીશન અને ડિસ્ટ્રીબ્યુશન) પ્રોજેક્ટ ચાંગા એન્જિનિયરીંગ સ્થિત ચારૂસેટ યુનિવર્સિટીના અભ્યાસ કરતાં યસ દેશમુખ, એન્જિનિયરીંગના ઇલેક્ટ્રિકલ વિદ્યાર્થીઓ દ્વારા તૈયાર કરવામાં અને જય વૈષ્ણવ દ્વારા ડો.પ્રજ્ઞેશ આવ્યો હતો. જે મિત્સુબીસી કંપની દ્વારા આયોજિત રાષ્ટ્રિયકક્ષાની સ્પર્ધામાં રજૂ કરવામાં આવતાં ચારૂસેટની ટીમને મોસ્ટ પોપ્યુલર ટીમ તરીકે પસંદગી કરવામાં આવી હતી.



ચારસેટમાં ઇલેક્ટ્રિકલ ડિપાર્ટમેન્ટમાં તુષાર સકસેના, પરમ મહેતા ભક્રના માર્ગદર્શન હેઠળ પ્રોજેક્ટ તૈયાર કરવામાં આવ્યો હતો. ટીમ લીડર યશ દેશમુખે જણાવ્યું હતું કે "હાલમાં મીટરના રીડીંગ માટે વીજકંપનીના કર્મચારીને ઘેર ઘેર જવં પડે છે. ઇન્ટેલી ગ્રીડ પ્રોજેક્ટથી

તમામ મીટરનું રીડીંગ એક જ સ્થળેથી મેળવી શકાશે. આ ઉપરાંત વીજ્યોરીને પણ અટકાવી શકાશે. ઓટોમેશનથી વીજવાયર પર અન્ય કોઇ રીતે ગેરકાયદે જોડાણ કરવામાં આવશે તો ઓટોમેટીક તે લાઇન પર વોટ વધતાં પાવર કટ ઓફ થઇ જશે. તેમજ લોડ શેરીંગથી ગ્રીડની પાવર ક્વોલિટી સુધારી શકાશે. હાલમાં સ્ટેટ લોડ ડિસ્પેચ સેન્ટરમાં પંદર મિનિટમાં જે કામ થાય છે તે

પીએલસીથી સાત મિલી સેકન્ડમાં જુદા જુદા વિસ્તારની લાઇનના બધા થઇ જશે. જેના કારણે વીજકાપની સમસ્યા નિવારી શકાશે. હાલમાં વીજ કંપની દ્વારા અઠવાડિયામાં એક દિવસ વીજ પુરવઠામાં કાપ મુકવામાં આવતો હોય છે. ઇન્ટેલી ગ્રીડથી વીજ પુરવઠામાં કાપ મુકવાની જરૂરીયાત રહેશે નહીં.

સવારના સમયે ઔદ્યોગિક એકમમાં વીજળીની જરૂરિયાત વધારે હોય ત્યારે જુદા જુદા રહેઠાણ વિસ્તારમાં વીજકાપ મુકીને ઔદ્યોગિક એકમની વીજળીની જરૂરિયાત પૂર્ણ કરી શકાશે. જેથી એકસાથે શહેર કે ગામમાં વીજકાપ મુકવાની જરૂરિયાત રહેશે નહીં. ઈન્ટેલીજન્ટ મોટરીંગથી ગ્રીડ લોડીંગ અને પાવર ક્વોલિટીનું પરર્ફોમન્સ અને એનર્જી યુસેજની નોંધ પણ કરી શકાશે. લાઇન સ્ટેટસ મોનીટરીંગથી

જ પેરામીટર એક જ સ્થળે રહીને નોંધી શકાશે.'

મિત્સુબીસી કંપની દ્વારા આયોજિત સેકન્ડ મિત્સુબીસી ઇલેક્ટિક કપમાં ચારૂસેટની ટીમે પ્રોજેક્ટ પ્રપોઝલ રજૂ કર્યું હતું. જેમાં ભારતભરમાંથી પસંદ કરાયેલી 35 ટીમમાં ચારૂસેટની ટીમને ચોથું સ્થાન મેળવ્યું હતું. પ્રોજેક્ટ પર કામ કરવા મિત્સુબીસી કંપની દ્વારા પીએલસી, એચએમઆઇ અને એમસીબીએસ જેવા હાર્ડવેર પૂરા પાડવામાં આવ્યા હતા. તેમજ તેની તાલિમ પણ આપવામાં આવી હતી. પૂનેની કોલેજ ઓફ એન્જિનિયરીંગ ખાતે યોજાયેલી ફાઇનલ સ્પર્ધામાં ચારૂસેટની ટીમ મોસ્ટ પોપ્યુલર ટીમ તરીકે પસંદ પામી હતી. જેમાં 200 માંથી 178 મત ચારૂસેટની ટીમે મેળવ્યા હતા.



Institute's students win first and second place with their projects presented in different categories at the west zone contest

Ahmedabad: Students of Charotar University of Science and Technol-ogy (CHARUSAT) were declared winners at the student annual rewinners at the student annual re-search convention (West Zone) or-ganised annually by AIU (Associa-tion of Indian Universities). The categories at the event included ag-riculture and animal husbandry, engineering and technology, health and allied sciences, social sciences,

law, management and commerce
The west zone competition was
hosted by NIMS University, Jaipur on

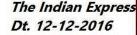
hosted by NIMS University, Jaipur on March 7 and 8, Around 170 students along with 75 faculty members from 20 universities and 18 affiliated colleges and institutions from Got, Guizard, Maharashtra and Raisathan participated in the competition. Students of CHARUSAT presented four projects with three in the engineering and technology category and one in health science. Out of 50 projects in the engineering and technology category the design of Intake System of Commercial Carl presented by Paramjot Singh Sardar,



Tarun Agrawal, Rutul Dholakiya of CHARUSAT secured the first rank in the West zone competition. The de-sign of an Automobile Exhaust Syssign of an Automobile Exhaust Sys-tem' presented by Nirav Sodha, Ar-shdeepsingh Sardar, Akash Nakum secured the second rank in the west zone. Both the projects were men-tored under Anand Patel, assistant weekseep department of mechanical professor, department of mechanical engineering, CHARUSAT.

The projects will now be show-cased at the national-level to be held from March 27 to 29 at Ana-malai University.







An insagural lecture under "Hori ble AP J Abdul Kalam Chair" was organized recently all Chardes Liviersity of Science and Technology Changa. Pleates Shri A. Si Kina Kuma Chair Chairman, India Ropace Research Chaptaction (SHO) and Scionatay, Department of Space delivered lecture on "Space Technology and Development". The CHARLISES that enly rickcling for Scienchia Pals (Presider, CHARLISE) & Reliated Reinfall, Dr Mi Intain thy final days for ill Sundrian Zeals, Pressent C-APPLISAT & Relations Mannal, D. Md.

Protect Son, Secretary, CHPF & CHAPLISAT, Shirhkapp Patter, Desender, CHPFID, D. B. G. Fait

Protect, Desend, Josef, Registra, Advison, Principala, Desens, teaches and stackeds lavringly westomed with this bouqual of flowers to this emisent personally of India. Dr. A. S.

In the conveyed great privilege and honors to visit CHAPLISAT. He both that is clearlifter fordings
are necessary in the sectrological era. Dr. Villeam Sunshibit believed that new individuory can
be harvest for the great and development of our country. At the end of the event, hard
of CHAPLISAT Sen. Supremb Patter presented mements to Dr. A. S. Kumar and his beam and
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At. Passars. Delich remissed days the development of the member of Dr. A. S. Kumar and his beam and



#### EVENT — CHAMBUBHAI S PATEL INSTITUTE OF TECHNOLOGY, CHARUSAT

Chandubhai S Patel Institute of Technology, a constituent CHARUSAT recently celebrated its Annual Feächation Function. On this occasion, eminent industrialist Shri Prayasvin Patel, Chairman & M.D. Elecon, was present as the Chief Guest, The CHARUSAT tralemity including Dr.M.C.Patel, Hon. Secretary, CHRF & Kelavari Mandal, Dr. B. G. Patel - Provost, Advisors, Devang Joshi, Registrar, Dr. Amit Ganatra, Dean, Faculty of Engineering and Technology, Dr. A.D. Patel, Principal, Chandubhai & Patel Institute of Technology, Deans and Principals from various faculties and institutes, budding engineering along with their parents remained present Dr. A.D. Patel, Principal, Chandubhai S. Patel Institute of Technology presented the Annual Report of CSPIT which included various activities and events carried outby the institute throughout the Academic Year 2016-2017, 196 students were awarded with shields and certificates for their splendid achievements in corricular and extracurricular activities. Dr. & G. Patel conveyed his blessing to all the students for their future.



#### **Times of India 12/03/2017**

# Charusat bags UK project to improve engg syllabus

TIMES NEWS NETWORK

Vadodara: The M & V Patel Department of Electrical Engineering of CSP atel Institute of Technology Changa-based Charotar University of Science and Technology (Charusat) has bagged a collaborative research project from Royal Academy of Engineering. the United Kingdom under the Newton-Bhabha Fund.

The project is an industryacademia collaboration to address system wide impacts of renewable energy sources in engineering programme. Apart from Charusat, the UK's Cardiff University, Uttar Gujarat Vij Company Limited and Vadodara-based Sigil India Services Private Limited are the collaborators for the project.

Around Rs76 lakh has been sanctioned for the project for a period of two years.

"The project has been sanctioned to enhance engineering education for Indian universities with the help of academic experts from the



The project includes knowledge sharing activities through faculty exchange programmes between Charusat and Cardiff University

UK," said Dr Pragnesh Bhatt, professor and head of the department, adding that knowledge sharing activities will be planned through faculty exchange programme between Charusat and Cardiff University.

"The project will be helpful in enhancing industry input in engineering curricula and educational practice in Charusat as well as other Indian universities to improve imparting of practical engineering skills and increasing graduate employability," he said.

"We are going to develop a laboratory which can show the working principle of power generation using renewable energy sources. Another objective is to study the effect of renewable energy sources on the performance of institution network in terms of losses and voltage profile," he said, adding, "The laboratory will also provide handson training to students to clearly understand the functions of power generation through renewable energy."





CHARUSAT Campus, Changa, Dist. Anand 388 421 (Gujarat) India

Phone: + 91 2697 265011, 265021 | Fax: + 91 2697 247100 Email: info@charusat.ac.in | Website: www.charusat.ac.in