



ISSUE 30



**BITS Pilani**  
Pilani Campus

Semester-II notes 2016-17

# bitscan

Pilani Campus



# editorial

Embarking on a journey towards Professional excellence, in this convocation, nearly 1372 students successfully completed their graduation, at BITS, Pilani ready to grab the innumerable opportunities waiting for them outside. 14 Board toppers of Class XII from the education Boards of various states have joined Indian campuses of BITS Pilani in 2017, admitted under the category of Direct Admission to Board Toppers.

BITS Pilani, Pilani Campus organized the 36th installation of the Blood Donation Camp (4-5 Feb 2017) under the supervision of 21 doctors from IRCS, New Delhi and NSS. Several conferences like the "International Conference on Challenges in Drug Discovery and Delivery (ICCD3)", and Conference on DNA Physics, etc. were also organized in addition to the first HR conclave. Faculty performance is exemplary which is evident from their participation and involvement in several academic forums. Students won various prizes at Sports Tournament "SPORTECH" held at IIT Delhi, won First Prize at iTech 2017 and Imagine Cup 2017. The 35<sup>th</sup> edition of BITS Pilani's technical fest, APOGEE 2017 - The Retrofuture was organized from 23rd to 26th March. Several students from other campuses attended the fest and enjoyed the plethora of workshops, paper presentations, unique competitions, talks and events like the Think Again Conclave, etc. Hence, it was a significant semester keeping up the legacy of excellence in academic as well as non-academic activities. Hope you enjoy reading about some of the achievements and milestones of the semester.

Board Toppers



## Prof L. K. Maheshwari foundation Distinguished Alumnus Award

Prof L. K. Maheshwari Foundation Distinguished Alumnus



The Prof L.K. Maheshwari Distinguished Alumnus Award distribution ceremony was held on January 5, 2017 at the BITS, Pilani Campus. The award was presented to Prof Mohan Manubhai Trivedi, Professor, Department of Electrical and Computer Engineering, University of California, San Diego for his outstanding contribution in Electrical & Instrumentation Engineering. Prof S. C. Sivasubramanian, Dean Administration & Acting Registrar, BITS Pilani, Pilani Campus was the Chief Guest of the ceremony. Prof Navneet Gupta, Secretary of the LKM Foundation, welcomed the guests and introduced the activities of the Prof L.K. Maheshwari foundation trust. Prof V. K. Chaubey highlighted the achievements of Prof Mohan Manubhai Trivedi.

## TEDx BITS Pilani

TEDx BITS-Pilani, was conducted on January 22, 2017 under the aegis of the Department of Humanities and Social Sciences and the guidance of Dr Rajneesh Choubisa (Professor-in-Charge).

Mr. R. Balasubramaniam at TEDx Talk



The event was a daylong conference that featured talks by 10 different speakers such as R. Balasubramaniam, a development scholar; Dr Jagdish Chaturvedi, a renowned medical device

inventor; Mr. Amit Shah, President and Country Head, Yes Bank; Mrs. Puja Marwaha, CEO, Child Rights and You (CRY), among others. Each speaker presented new and exciting ideas that were useful and inspiring to the audience, in line with the motto of TEDx globally, which is 'Ideas Worth Spreading'. Upon completion, the TEDx dedicated team thanked all the speakers, sponsors, institute authorities and the attendees for making the event a grand success.

## Bridging the Talent Gap - Issues and Challenges: Annual HR Conclave

The Department of Management in collaboration with the Work Integrated Learning Programmes (WILP) Division of BITS Pilani organized its first HR Conclave on the theme "Bridging the Talent Gap - Issues and Challenges" on January 20, 2017.

Prof Ashoke K. Sarkar delivering Inaugural address



Prof Ashoke K. Sarkar, Director, Pilani campus delivered the inaugural address and highlighted BITS Pilani's model of education. He also suggested that the industry and academia must collaborate to create win-win models to bridge the skill gap. The keynote speaker Mr. Vineet Kaul, Advisor - Group HR, Aditya Birla Group and Ex-CHRO Hindalco Industries Ltd. in his address elucidated the importance of creating an employee value proposition and the present day challenges of keeping oneself updated in terms of skills.

Annual HR Conclave



The event brought together several eminent and senior level management professionals across sectors who shared their wealth of expertise and knowledge in the field of human resources. The HR Conclave was convened by Dr Jayashree Mahesh and co-ordinated by Dr Udayan Chanda and Dr Praveen Goyal of the Department of Management.

## 68<sup>th</sup> Republic Day Celebrations

68<sup>th</sup> Republic Day Celebrations



BITS Pilani, Pilani Campus celebrated the 68th Republic Day on 26th January 2017 with great enthusiasm. This memorable occasion was graced by the presence of Chief Guest, Professor Ashoke K. Sarkar, Director, Pilani Campus, Prof S.C. Sivasubramanian, Dean, Administration & Acting Registrar, Deans, Associate Deans, Unit Chiefs, Heads of various departments, other faculties and their families, staff and students. Dr Rajeev Sakhujia, the Faculty-in-charge of Institute functions, commenced the celebrations by welcoming everybody who gathered to celebrate the occasion despite heavy rains. The National Song was sung by the students headed by Dr Anil Rai. Thereafter, Prof Ashoke K. Sarkar hoisted the national flag, the symbol of our National pride and identity, This was followed by rendition of the National Anthem. The ceremony ended with loud cries of 'Jai Hind' by the audience.

## 66<sup>th</sup> Founders Day

BITS Pilani, Pilani Campus celebrated its 66<sup>th</sup> Founders Day on February 1, 2017 (Basant Panchami) with great passion and enthusiasm. The Vidya Vihar Campus of BITS Pilani was formally inaugurated by the First President of India, Dr Rajendra Prasad on Basant Panchami, in the year 1951. This day is commemorated as Founder's Day every year.

66<sup>th</sup> Founders Day Celebration



Prof Souvik Bhattacharyya, the honorable Vice-Chancellor, BITS Pilani, Prof Ashoke K. Sarkar, Director, Pilani campus, Prof S.C. Sivasubramanian, Dean Administration & Acting Registrar and many faculty members assembled on this auspicious day and offered floral tributes to the statue of the founder chairman, the Late Shri Ghanshyam Das Birla. Thereafter, Thyagaraja Aradhana Program was organized by Ragamalika, a student association group.

66<sup>th</sup> Founders Day



Prof Souvik Bhattacharyya and the chief guest of the cultural event Prof Ashoke K. Sarkar, Prof S.C. Sivasubramanian, Dr Rajeev Sakhujia, faculty-in-charge, Institute functions, inaugurated the final grand cultural event by lighting the lamp. This was followed by musical performances by students belonging to seventeen regional societies, exhibiting the diverse culture and flavours of the different states in India. During the ceremony nine members of the non-teaching staff who are due to retire this year were felicitated by the distinguished guests. In addition, 16 awards were also given to select non-teaching staff for their outstanding achievements in their field of work and significant contributions made to the administration and functioning of the Institute. Approximately 350 students participated in the event and enjoyed the celebrations. All in all, one can say that all the BITSians felt great pride observing the splendid celebrations that highlighted the significance of Basant Panchami.

## Blood Donation Camp

NSS BITS Pilani, Pilani campus organized a Blood Donation Camp during February 4-5, 2017. It was inaugurated by Prof. Souvik Bhattacharyya, Vice-Chancellor, BITS Pilani in the presence of Prof. Ashoke K. Sarkar, Director, Pilani Campus; Prof. S.C Sivasubramanian, Dean Administration, Prof. Anupam Singhal, NSS Program Coordinator, along with Mr. Aseem Sindwani, President, NSS; Mr. Abhishek Kumar Jha, Vice President NSS, and Blood Donation Camp Coordinators Mr. Bikram Singh Bisht and Miss Pranati Jain.

Blood Donation Camp



Organized under the supervision of a team of 19 doctors from the Indian Red Cross Society, New Delhi the event marked the 36th installation of the camp. Dr. R.P. Pareek, Chief Medical Superintendent, Prof H.D. Mathur, Associate Dean ARCD, along with many other professors and staff members graced the occasion. A large number of NSS volunteers and other students also participated in this event.

## Ruby Reunion Celebration of 1972 Batch

Around 25 Alumni of the BITS 1972-77 batch returned to Pilani with their families to celebrate their Ruby Jubilee of graduation on February 10, 2017. Coming from various parts of the globe, the bunch of ex-BITSians included successful professors, entrepreneurs, ex-servicemen and corporates. They went on a campus tour, interacted with the current students and relived their memories at BITS. There was also a welcome and faculty felicitation function for their former Professors where Prof Sheshu, Prof Kashiramka, Prof Yadav, Prof MMS Anand and Prof Krishna Mohan were honoured by the alumni. This was preceded by an extensive interaction with Prof Ashoke K. Sarkar, Director, Pilani Campus and Prof Souvik Bhattacharyya,

Vice-Chancellor, BITS Pilani. Prof Bhattacharyya outlined the vision and challenges ahead of BITS, and gathered the alumni's support for the road ahead. The batch responded positively, with the promise of support from BITSAA to develop BITS into a world-class institution. Prof Hari Om Bansal, Faculty In-Charge BITSAA cell, co-ordinated the event. The Batch stayed till February 12, 2017 reliving their youthful days in Pilani.

BITS 1972-77 batch



## 3rd Workshop on Analytical Instruments for Chemical and Environmental Engineers

Analytical methods in research have been an important area of interest for all chemical and environmental engineers, especially those involved in the qualitative and quantitative analysis of various process streams. Keeping this in mind, the Department of Chemical Engineering, BITS Pilani, Pilani Campus, organized a 2-day Workshop on Analytical Instruments for Chemical and Environmental Engineers (WAICEE-2017) in its 3<sup>rd</sup> edition, during February 10 - 11, 2017.

Prof Souvik Bhattacharyya's address during workshop



WAICEE-2017 was inaugurated by the Chief Guest Dr Siddharth Mukherjee, Director, Technology, Air Liquide Global E & C Solutions India Pvt. Ltd., Prof Souvik Bhattacharyya, Vice-Chancellor, BITS Pilani and Prof Ashoke K. Sarkar, Director,

Pilani Campus were also present. Dr Mukherjee, in the inaugural address highlighted the importance of on-line measurements of physical properties and chemical compositions so that corrective measures can be taken at the right moment in a running process plant.

Around 50 participants, which included faculty, research scholars, post graduate and under graduate students from institutions across the country, attended the workshop. This workshop equipped participants with skills required to handle and operate sophisticated analytical instruments, which are imperative in the present industrial environment.

Workshop participants



## Workshop on "Fatigue, Creep and Fracture Related Life Prediction Techniques"

The Department of Mechanical Engineering organized a two-day workshop on "Fatigue, Creep and Fracture Related Life Prediction Techniques" during February 17-18, 2017. Prof K. Ramesh and Prof Raghu Prakash from IIT, Madras were the external resource persons and delivered lectures on fracture mechanics, damage tolerant design and fatigue of the materials. Prof P. Srinivasan and Prof B. K. Rout delivered lectures on creep life prediction and data driven approach for failure prevention respectively. In the inaugural function, Prof Souvik Bhattacharyya, Vice-Chancellor, BITS Pilani emphasized the need for a data driven approach and big data analysis in failure prevention. Prof Ashoke K. Sarkar, Director, Pilani campus in his address highlighted the importance of life assessment for roads, bridges and the structures of Civil Engineering. Prof M. S. Dasgupta welcomed the gathering and highlighted the history of the Mechanical Engineering Department. Prof P. Srinivasan, Convener of the workshop and Head of the Department of Mechanical Engineering, highlighted the theme of the workshop and the need for holding such workshops. He also addressed the need for introducing a course on the Damage Tolerant Design approach as a part of the curriculum. Prof K. Ramesh, in his inaugural address, brought out the importance of fracture

mechanics and highlighted the origin of fracture mechanics in the era of Ramayana and the historical evolution of the concept. More than 60 participants from industries and academia benefited from the workshop. Dr Sachin Belgamwar, Dr Jitendra Singh Rathore, Dr Sharad Srivastava and Dr Srinivas Kota, the co-conveners of the workshop ensured the successful completion of the workshop.

Resource person delivering lecture during a session



## Together at BITS Event

"Together at BITS", a cultural evening involving children, BITS' students, faculty and their families, was organized in the central auditorium of the Institute on February 18, 2017. Marking the first time in the Institute's history, in a three hour long programme, the stage was shared by students, faculty members and their families.

The Department of Biological Sciences presented an enthralling performance where first degree and higher degree students, research scholars and faculty members performed together.

Prof Ashoke K. Sarkar, Director, Pilani campus along with his wife, and Prof R. N. Saha, Director, BITS Pilani, Dubai Campus graced the function. The event witnessed participation in a large number.

The event conducted by Prof Sanjiv Kumar Choudhary and Mr. Akash Singh was jointly organized by the Teaching Learning Centre, Staff Association and the Students' Union of Pilani Campus.

## Workshop on Orienting Teaching towards Outcome Based Learning

The Teaching Learning Centre (TLC), BITS Pilani, Pilani Campus, in collaboration with the Department of Humanities and Social Sciences, organized a two-day workshop on Orienting Teaching towards Outcome Based Learning during February 18-19, 2017. The inaugural function of the workshop was graced by Prof Souvik Bhattacharyya, Vice Chancellor, BITS Pilani, Prof Ashoke K. Sarkar, Director, Pilani Campus, Prof S. C. Sivasubramanian, Dean, Administration & Acting Registrar, BITS

Pilani, Heads of various Departments, Teach India Fellows, Faculty members of the Institute and Principals of a few BET schools.

Prof G.S. Chauhan, Head, Department of Humanities and Social Sciences welcomed the guests and the participants and introduced the Department to the audience. Prof S. K. Choudhary, Faculty In-charge, TLC, BITS Pilani, Pilani campus introduced the theme of the workshop. In his keynote address, Major (General) S. S. Nair (Retd.) AVSM, Director, Birla Education Trust, Pilani and Guest of Honour highlighted the need for improvement in the teaching and learning scenario of the country, emphasizing that no particular approach of teaching and learning can suit all nations and hence there is a need for localized solutions to problems. Dr Praveen A. V. proposed the vote of thanks.

Fellows from the Teach India Programme conducted demonstration classes on 'teaching a story' and 'electromagnetic field' for teachers. The workshop ended with the participating teachers' observations on the demonstration classes.

## Basant Book Festival

Basant Book Festival 2017



With the aim of encouraging the reading habit among the people of all age groups, the Basant Book Festival -2017 was inaugurated by Prof Ashoke K. Sarkar, Director Pilani Campus at Vishwakarma Mess on February 23, 2017 in the presence of Mr. Giridhar Kunkur, the Librarian and Chief, Publications and Media Relations Unit. Prof Sarkar while addressing the gathering shared the importance of a Book Fair in the digital world. He encouraged the audience to develop the reading habit and also hoped to organize the fair on a larger scale.

During the inauguration, the Book AURORA: Creative Short Stories, written by the Students of BITS Pilani, Pilani Campus during a competition organized by the BITS Library was launched by Prof Ashoke K. Sarkar. The book launch was followed by several events. Raghav Sharma, one of the authors of the short story shared his heartwarming story. Sachin Tripathi and Kuppa Sai Sashank, students from the Poetry Club recited

poems. Many senior professors like Prof S.K. Verma, Dean Academics and Research Division, Prof Surekha Bhanot among many others attended the event. Mr. Kunkur, on behalf of the library staff and committee, proposed the vote of thanks. Nearly 26,000 books, covering areas such as, Science, Technology, Engineering, History, Social Sciences, Literature, Biography, Fiction, Dictionaries, Encyclopedias, Children's Books, and books on general reading were on display during the festival by six different publishers and well known booksellers.

Basant Book Festival 2017



## Symposium on Operational Research and Pure Mathematics

The Department of Mathematics organized a one day Symposium on "Operational Research and Pure Mathematics" on February 26, 2017. In this symposium, many invited professors delivered their talks. Professor Madhu Jain (IIT Roorkee) delivered a lecture on "Reliability growth modeling for software systems with imperfect debugging and change points", Professor S. Ponnusamy (ISI, Chennai Centre) on "Recent Development on Bohr's Inequality on power series", Professor Pankaj Gupta (University of Delhi) on "Multicriteria Optimization", Prof Sugata Gangopadhyay (IIT Roorkee) on "Construction of Bent functions based on Z-Bent functions" and Dr Narsimha Shastry (IIT Dharwad) Professor of Mathematics, on "Building Blocks for simple groups and their Geometries".

## International Conference on Challenges in Drug Discovery and Delivery (ICCD3)

An International Conference on Challenges in Drug Discovery and Delivery (ICCD3) was organized by the Department of Pharmacy, BITS Pilani, Pilani Campus during March 2-4, 2017. Mr. Chandrashekar Ranga, Deputy Drugs Controller (India), New Delhi was the Guest of Honour. Mr. Ranga, in his inaugural address, enlightened the audience with the regulatory guidelines and various other developments in the Pharma sector, including SUGAM portal for improving e-governance of IND applications.

Mr. S. G. Prasad, Ex Drugs Controller, Uttar Pradesh was also present on this occasion.

International Conference (ICCD3)



Topics such as RNA based therapeutics, molecular modelling, Chemoinformatics, receptor mediated drug delivery and treatment of neglected tropical diseases among many others were discussed. Apart from this, over 165 posters were presented, covering different topics ranging from in silico methods to in vivo and clinical studies, which are the different stages of drug development. The event showcased the extensive research going on throughout the country to tackle major health issues like cancer, diabetes, neurological complications, etc.

The conference also included around 20 oral presentations in a span of three days. Young researchers from various parts of the country participated in oral presentations which allowed the audience to learn about recent research being undertaken in reputed laboratories across the country.

International Conference ICCD3



## Conference on DNA Physics

A three-day conference on DNA Physics was organized during March 9-11, 2017 at BITS Pilani, Pilani campus. The aim of the conference was to review the recent advances in experimental, theoretical, and computational studies in areas that revolve around DNA Physics and to bring together people working on the science of DNA molecules and possible future technology developments on a single platform.

The conference was inaugurated by Prof Ashoke K. Sarkar, Director Pilani campus. Prof Anshuman Dalvi, Head, Department of Physics, welcomed the delegates. Prof Navin Singh, convener of the conference, explained the theme and also the motivation behind the conference.

About 40 researchers from various parts of India and Europe participated in this very first conference on DNA Physics. Renowned scientists such as Prof Yashwant Singh from Banaras Hindu University, Prof M. Bhattacharjee from the Institute of Physics; Prof M. Peyrard from Laboratory Physics, France and Hermann Gaub, Ludwig-Maximilians University, Germany, etc. were present during the conference.

There were about 16 invited talks and 10 contributory talks delivered by the experienced and renowned speakers during the conference. Several issues like 'How is DNA wrapped on histone protein and what is the physics behind it? How DNA can act as a molecular motor? Is there any possibility of forming three stranded DNA and what will happen then?' were discussed. In addition to these talks, 12 poster presentations were also given by students from various parts of the country.

Conference on DNA Physics





## 2<sup>nd</sup> International conference on Evidence Based Management

The Department of Management, BITS Pilani Pilani Campus, organized the 2<sup>nd</sup> International conference on 'Evidence Based Management' during March 17-18, 2017. The conference was presided over by Dr Leela Rani, Head, Department of Management and Prof Anil K. Bhatt, as the Conference Chairperson.

The proceedings began with the lighting of the lamp and welcome address by Prof Ashoke K. Sarkar, Director, Pilani campus and other dignitaries. The keynote speech was delivered by Prof Shailendra C. Jain Palvia, Long Island University, Brookville, New York, during the inaugural session. This was followed by the theme session, chaired by Prof Sanjeevan Kapshe, SEBI Former Professor, Railway Staff College, Vadodara.

The conference covered track themes such as Relationship Marketing, Business Intelligence & Project Management, Strategy and Entrepreneurship, Employee and Talent, Capital Market and new paradigm in Financial Policy, Consumer Behavior and new paradigm in Service Quality, Supply Chain Management and Banking among others and saw enthusiastic participation from the delegates.

The conference attracted a number of research papers from academicians and scholars from across the country and some eminent speakers from the industry. The two-day conference concluded with the valedictory session on March 18, 2017 where Prof Anil K. Bhatt proposed the vote of thanks.

2<sup>nd</sup> International conference on Evidence Based Management



## Workshop "AACME 2017"

The Department of Mechanical Engineering, BITS Pilani organized a two-day workshop "AACME 2017" on the Applications of Advanced Computational Methods in Engineering during March 28-29, 2017. The workshop was inaugurated by Prof Souvik Bhattacharyya, Vice-Chancellor, BITS Pilani on

March 28, 2017 in the presence of Prof Ashoke K. Sarkar, Director Pilani campus, Prof S. C. Sivasubramanian, Dean Administration & Acting Registrar, Prof P. Srinivasan, Head, Department of Mechanical Engineering, the resource persons, faculty members from Mechanical Engineering and other departments and the workshop participants.

Workshop "AACME 2017"



The workshop was convened by Dr Ravi Inder Singh, Dr Murali Palla and Dr Shyam Sunder Yadav. Prof S. Vengadesan (Professor & Head, Department of Applied Mechanics, IIT Madras), Prof M.P. Gururajan, (Associate Professor, Department of Metallurgical Engineering and Materials Science, IIT Bombay), Mr. Narendra Rana (Manager) and Mr. Nilesh Sondarva (Engineer, Technical Support Team for CFD from AVL India Pvt. Ltd. Gurugram) acted as resource persons. The topics covered during the workshop were turbulence modeling for engineering applications, prediction of material structure evolution during solidification, material behavior under fracture, computational fluid dynamics based techniques for predicting the flow inside internal combustion engines and boilers, and introduction to parallel computing tools such as Message Passing Interface (MPI) and OpenMP.

The purpose of the AACME 2017 workshop was to provide exposure to the applications of advanced methods in the areas of computational solid and fluid mechanics to the participants who were mostly undergraduate and graduate students apart from a few research scholars and faculty members from nearby institutes. A total of 66 students from the host Institute as well as the neighboring institutes registered and benefited from the workshop.

Workshop "AACME 2017"



## Graduating Students' Tea Party

The Vice-Chancellor, Prof Souvik Bhattacharyya, Director, BITS Pilani, Pilani Campus, Prof Ashoke K. Sarkar, and faculty members met the graduating students over high tea on April 26, 2017 at the VFAST Hostel Lawns. The event was organized by BITSAA. The Vice-Chancellor and Director delivered inspiring speeches to begin the proceedings. Dr Kumar Neeraj Sachdev, Associate Dean, Students Welfare Division, Prof S.C. Sivasubramanian, Dean, Administration & Acting Registrar and Dr Surekha Bhanot, from Department of EIE & Chief of the Instrumentation Unit shared their thoughts with the students. All faculty members spoke about the responsibility that the graduating BITSians must carry. The graduating students were assured that their Alma Mater will support them under all circumstances. The students of the Placement Unit also received their certificates on the occasion. A few graduating students from different programs also expressed their feelings of gratitude and thanked BITS for everything.

Graduate Tea Party



## BITS Pilani Library Celebrates World Book Day

Organized annually by the UNESCO in order to promote reading, publishing and copyright among the public worldwide, World Book Day 2017 was celebrated at BITS Pilani promoting "Reading as a Habit". As a part of this initiative, the library displayed an interesting collection of books on William Shakespeare and other works of literature by well-known authors and favorites of faculty members during April 23-29, 2017.

Mr. Giridhar Kunkur, Librarian and Unit Chief, Publications and Media Relations Unit, BITS, Pilani organized a contest "**Draw a Book Cover**" for children of BITS faculty and staff in the Library on April 23, 2017 to celebrate the World Book Day. A total of 71 children, divided into two age groups of 7-9 years and 10-15 years, participated in the contest. The selection criteria were based on the following four factors: Creativity, Drawing, Coloring and Neatness. A panel of three judges Mrs. Anamika Das Gupta, Mrs. Kajal Belgamwar and Dr Sushila Shekhawat selected the winners from these two age groups. From the age group 7-9 years, Ms. Suhani Gupta, Ms. Namya and Mr. Shubham Sethi stood first, second and third respectively. From age group 10-15

years Ms. Taruna Kumari, Ms. Akshita Panwar and Ms. Adyasha Giri secured the first, second and third positions respectively. Five consolation prizes each, in both age groups, were awarded to the contestants. The prize distribution ceremony was held on April 24, 2017. The prizes were distributed by Prof Ashoke K. Sarkar, Director Pilani Campus.

"Draw a Book Cover" Competition for Staff Kids



## Workshop on Impact of Pradhan Mantri Gramin Sadak Yojna on Accessibility of Roads in Rural Areas

A workshop on the "Impact of Pradhan Mantri Gramin Sadak Yojna (PMGSY) Roads on Accessibility in Rural Areas" at BITS Pilani, was organized on May 6, 2017. The purpose of the workshop was to share the outcomes of PMGSY with engineers working at different levels in the Public Works Department in the state of Rajasthan. Prof Ashoke K. Sarkar, Director, Pilani campus presented a complete overview and background of the workshop. Prof A. P. Singh, who was instrumental in organizing this event, welcomed the delegates.

Workshop on Impact of Pradhan Mantri Gramin Sadak Yojna



Shri Basavaraja, Director (Project II), PMGSY, National Rural Development Agency highlighted the status of PMGSY roads in the country. Dr Shalini who completed her PhD under this project explained the complete methodology developed in Rural Accessibility and Rural Road Network Planning along with the key features of her research findings.

Prof S. K. Choudhary from the Department of Humanities and Social Sciences, deliberated on Socio-Economic and Health Impacts of PMGSY Roads on Women and explained how women have been empowered through the construction of PMGSY roads. Shri. C. L. Verma, Chief Engineer PMGSY, PWD, Rajasthan explained about the present status and challenges of implementation of the PMGSY in Rajasthan. Dr Prashant Sahu thanked all the participants for their active participation and contributions in conducting the workshop.



### International Yoga Day

The 3<sup>rd</sup> International Yoga Day was celebrated at BITS Pilani on June 21, 2017 in which a number of activities were conducted with the immense support received from Director Prof Ashoke K. Sarkar, Dean, Administration & Acting Registrar, Prof S. C. Sivasubramanian, faculty members, staff, students and family members of the staff.

The event started with a Yoga demonstration and meditation session under the guidance of Yogacharya Dinesh Kumar. All the participants enjoyed the benefits of Yoga with the enchanting Om Dhawani music playing in the background.

The three best performers were presented with prizes by Prof S. C. Sivasubramanian.

The Institute also organized a display of Posters and an Online Essay Writing Competition for students with a word limit of 1000 words about the "Benefit of Yoga in Student's Life".

International Yoga Day



### Sapling Plantation Drive 2017

Today's world is riddled with problems and a balance between flora and fauna is the one of the biggest challenges. Population growth wildly distorts the balance between our economic well-being and health. Planting one sapling means planting a whole living system. Working with this spirit, BITS Pilani, Pilani Campus organized a sapling plantation drive as a part of their

commitment to improve the green cover in the campus. The Plantation Drive 2017 commenced on July 19, 2017 under which 750 saplings such as Arjuna, Amrood, Anar, Shahtoot, Lassua, Jamun, Janti, Neem, Sissam, Roheda, Pilkhen, Kachnar, Papdi, Chandni were planted.

Prof Souvik Bhattacharyya, Vice-Chancellor, BITS Pilani, Prof Ashoke K. Sarkar, Director, Pilani Campus, Prof S.C. Sivasubramanian, Dean, Administration & Acting Registrar, Lt. Colonel A K Bhatia (Retd.), Estate Manager, Mr. Giridhar Kunkur, Librarian and Unit Chief, Publications and Media Relations Unit, Prof Sangeeta Sharma, and other faculty and staff members of Pilani campus participated enthusiastically in the tree plantation drive.

Plantation Drive 2017



### Convocation- 2017

Convocation 2017 was held on July 23, 2017 to commemorate 845 BITS Pilani students graduating from the Institute. The chief guest for the day was Dr Tessy Thomas, Director, Advanced Systems Laboratory, DRDO Hyderabad.

Convocation- 2017



Prof Souvik Bhattacharyya, Vice-Chancellor, BITS Pilani, read out Dr Kumar Mangalam Birla's, (The Chancellor, BITS Pilani) message to the audience "What is it that can empower our nation? The most obvious answer is education. Education that enhances livelihoods but also education that is value based.

Education that gives roots and gives wings as well.” Prof Souvik Bhattacharyya and Prof Ashoke K. Sarkar, Director, Pilani Campus presented their respective reports on BITS Pilani, Pilani Campus and introduced the Guest of Honour Prof Santanu Chaudhary, Director, CSIR-CEERI, Pilani.

Mr. Abhinav Baid (2013A7TS018P), Mr. Vaibhav Garg (2013A3PS587P), Mr. Harshit Jain (2013A7PS289P) were awarded the Gold Medal, Silver Medal and Bronze Medal respectively for their exemplary academic performance throughout.

Prof Arya Kumar announced the Distinguished Alumnus Award for the year 2017 for Prof Govindan Rangarajan, Professor, Department of Mathematics and Chairman, Division of Interdisciplinary Research, IISc, Bangalore for Academic Teaching and Research, Prof Narayana R. Aluru, Richard W. Kritzer, Distinguished Professor, Department of Mechanical Science and Engineering, University of Illinois, Urbana-Champaign, USA for Academic Teaching and Research, Mr. Hari Menon, Co-founder, CEO and Head of Merchandising, Big Basket for Entrepreneurship, Mr. Harish Bhat, Chairman, Tata Coffee Ltd. and Brand Custodian of Tata Sons for Professional Management of Business and Mr. Raghu Rajagopal, CEO/Co-Founder, DATRI for Public Life /Social Entrepreneurship.

The ceremony ended with Prof S.K. Verma, Dean, ARD presenting the vote of thanks and the students looking forward to conquer the real world challenges with the sword of education that their alma mater had presented them with.

Convocation- 2017



## An interactive workshop on Goods and Service Tax (GST)

An interactive workshop on Goods and Service Tax (GST) was conducted by Accounts and Finance Section (AFS) of BITS, Pilani campus at NAB Audi on July 26, 2017. A detailed presentation on GST relating to the concepts of the new Act Registration, statutory compliance, Returns etc. was also presented. The Director, Prof Ashoke K. Sarkar was the Chief Guest and Prof Sivasubramanian, Dean, Administration & Acting Registrar presided over the workshop. Mr Maneesh Agarwal, Chartered Accountant, Brij Kishore and Company was the guest speaker. Prof Satyen Sharma, Head, Accounts and Finance also gave a detailed presentation on GST.

Workshop on Goods and Service Tax (GST)



## Alumni Cell, BITS Pilani

BITS Pilani has formed a new university-wide Alumni Cell led by Prof Arya Kumar, Dean, Alumni Relations. This Cell will connect with the BITS Pilani global alumni network and involve them in the Institute's development plans in association with BITSAA (BITS Alumni Association). The Alumni Cell will have a strong student-alumni team led by the Dean, Alumni Relations with cross-campus support provided by various Faculty-in-Charge (FIC), Alumni Relations in each campus of BITS Pilani. The main purpose of the Cell would be to constantly connect the global alumni and conceptualize, develop and organize various alumni led initiatives related to campus development, student life and academic processes. The institute Alumni Cell and BITSAA would function seamlessly across all processes.

# Academia: a confluence of ideas

## Seminars/Conferences Workshops/Training Programmes Enriching the Learning Experience: Visits by Faculty

**Prof Hari Om Bansal, Department of Electrical and Electronics Engineering,** attended an International Conference on Control Engineering and Artificial Intelligence (CCEAI 2017) and presented a paper titled "Performance Analysis of Hybrid Electric Vehicle over Different Driving Cycles" at Kuala Lumpur, Malaysia during January 13-15, 2017.

**Dr Neetu Yadav, Department of Management,** participated in the 2nd Asia-Pacific Region System Dynamics Conference of the System Dynamics Society and presented a paper titled "Sustaining Competitive Edge of Indian Outsourcing IT-ITes Industry: A Systems Approach" at National University of Singapore, Singapore during February 19-22, 2017.

Dr Neetu Yadav



**Dr Kamalesh Kumar, Department of Civil Engineering,** attended the 2<sup>nd</sup> International Conference on Science, Engineering, Law & Management (ICSELM) and presented a paper titled, "Net Safe Bearing Capacity of Glass Fibre Reinforced Piloni Soil Under Surface Footing Conditions" at the Republic of Mauritius during June 1-2, 2017.

Dr Kamalesh Kumar



**Dr Monika Gupta, Department of Economics and Finance,** attended a System Dynamics Summer School at MIT Sloan School of Management, Massachusetts, USA during July 11-14, 2017.

**Dr Krishnendra Shekhawat, Department of Mathematics,** presented a paper titled "Rectilinear Floor Plans" at the International Conference CAADFutures 2017 held at Istanbul Technical University, Turkey during July 12-14, 2017.

**Prof Kumar Neeraj Sachdev, Department of Humanities and Social Sciences,** attended the 4th International ELLTA Conference on Perspectives on Leadership, Learning and Social Enterprise in Asia: Sharpening Focus on Research Collaborations and Publications and presented a paper titled "Education, Learning and Change: A Philosophical Analysis" held at Asian Institute of Technology, Bangkok, Thailand during July 25 – 27, 2017.

Prof Kumar Neeraj Sachdev



**Prof P. Srinivasan, Department of Mechanical Engineering,** conducted a two-day executive training program on "Fatigue, Fracture and Creep related Life Prediction Techniques" during February 25 - 26, 2017 and March 25 – 26, 2017 at Vishakapatnam Steel Plant, Vizag.

**Dr Manoj Soni, Department of Mechanical Engineering, and Dr M. Srinivas, Department of Mechanical Engineering, BITS Pilani, Hyderabad campus,** jointly conducted a two-day training program for graduate engineers and plant officials on "Power Plant Engg.- Power plant performance calculation" module at Grasim Industries (Cellulosic Division), Vilayat, Gujarat during March 24-25, 2017.

**Dr Anupam Yadav, Department of Humanities and Social Sciences,** attended an International Conference on "Comparative Philosophy at the Crossroads" at the American University in Dubai, Dubai and presented a paper titled "Philosophy and the Discourse of Interdisciplinarity of Knowledge" during April 7-8, 2017.

**Prof P. Srinivasan and Dr Manoj Soni, Department of Mechanical Engineering**, jointly conducted a two-day training program for graduate engineers and plant officials on "Boiler Technology" module at Grasim Industries, Nagda, MP during May 30-31, 2017.

**Prof P. Srinivasan, Department of Mechanical Engineering**, conducted a two-day executive training program on "Coal Chemistry and Metallurgy" for working professionals at Birla Cellulosic, Kharach during July 6-7, 2017.

Prof P. Srinivasan



**Dr Yashvardhan Sharma, Department of Computer Science and Information Systems**, attended 2017 IEEE/ACM an International Conference on Advances in Social Networks Analysis and Mining (ASONAM 2017) and presented a paper titled "Deep Paraphrase Detection in Indian Languages" in Sydney, Australia during July 31 - August 3, 2017.

Dr Yashvardhan Sharma



**Dr Rajneesh Choubisa, Department of Humanities and Social Sciences**, attended a Positive Psychology Congress held at Montreal, Canada, during July 13-16, 2017. The paper for the round table discussion was titled "Do Transgressions and Gratitude act as Predictors of Well-Being among Indian Engineering Undergraduates?"

Dr Rajneesh Choubisa



## Invited Lectures by Faculty

**Dr Manoj Soni, Department of Mechanical Engineering**, delivered a lecture on "Spirituality & Science" at a Youth Camp jointly organized by Swami Vivekananda Studies Centre, Sant Gadge Baba Amravati University, Amravati and Swami Vivekananda Youth Study Circle, Shri Ramakrishna Vivekananda Seva Mandal, Akola on January 22, 2017 and also delivered a lecture on "Essence of Entropy" at Government College of Engineering, Amravati on January 27, 2017.

Dr Manoj Soni delivering lecture on "Essence of Entropy"



**Prof Jitendra Panwar, Department of Biological Sciences**, delivered a guest lecture on "Mycofabrication, characterization and applications of nanoparticles in agriculture" at the International Training Program for Bhutan Officials & ICAR Sponsored Winter School at ICAR Central Institute of Freshwater Aquaculture, Bhubneswar, Odisha, on February 28, 2017.

**Dr Paul Atish Tulshiram, Department of Pharmacy**, delivered a lecture on "Extraction, Isolation and Structure Elucidation of Natural Products for Drug Discovery" at the Ministry of AYUSH, Govt. of India sponsored CME Training program on "Scientific Validation, Development and Promotion of Siddha Medicine" during March 23-28, 2017 held at AU-KBC Research Centre, MIT Campus of Anna University, Chennai and also delivered a lecture on "Role of Natural Products as Anti-Obesity Agents" at DST-SERB sponsored National Conference on Bioactive

Phytopharmaceuticals: Present and Future Scope" held on March 10, 2017 at Baba Farid University of Health Science, Faridkot, Punjab.

Dr Paul Atish Tulshiram



**Dr Chandra Shekhar, Department of Mathematics**, conducted hands-on practice on "Programming in MATLAB for Optimal Control of Engineering Systems" in a short term course on Stochastic Modelling and Optimal Control of Engineering Systems organized by QIP Centre, IIT Roorkee during May 22-26, 2017.

**Dr Vishal Saxena, Department of Biological Sciences**, delivered a talk on "Metabolic Pathways of the *Plasmodium vivax* apicoplast as malarial drug targets" at the University of South Bohemia, Ceske Budejovice, Czech Republic on June 20, 2017.

**Dr Sandhya Mehrotra, Department of Biological Sciences**, delivered a talk on "Cyanobacterial Bicarbonate transporters for improved activity of C3 RubisCO" at the Alexander Silberman School of Life Sciences, Hebrew University of Jerusalem, Israel on June 27, 2017.

## Accolades and achievements

**Prof Rajesh Mehrotra, Department of Biological Sciences**, received the Best Educationist Award in Biology category for research and teaching undergraduate and postgraduate students by IIEC, International Business Council and Indian Solidarity Council, on April 10, 2017 at New Delhi.

Prof Mehrotra receiving the Best Educationist Award



**Dr Monika Gupta, Economics and Finance Department**, was awarded with a scholarship (\$2000) from PwC and System Dynamics Society to attend the System Dynamics Summer School at Massachusetts Institute of Technology (MIT) in July, 2017.

**Prof Arya Kumar, Department of Economics and Finance**, participated as an expert member to review the performance of universities funded under the University Innovation Cluster program by BIRAC, DBT, the Govt. of India on July 11, 2017 at New Delhi. He was also a panel member in a discussion on "Policy framing for enhancing entrepreneurial climate in educational institutes" organized by MNIT Innovation and Incubation Centre on July 29, 2017 in Jaipur.

**Mr. Sanjeev Jakhar, (2013PHXF002P) and Dr Manoj Soni, Department of Mechanical Engineering**, were awarded the prestigious DST, Govt. of India and the Indo-US Science and Technology Forum (IUSSTF), Building Energy Efficiency Higher & Advanced Network (BHAVAN) Fellowship for research for 3 months from June 2017 to August 2017 at the University of Nevada, Las Vegas, USA.

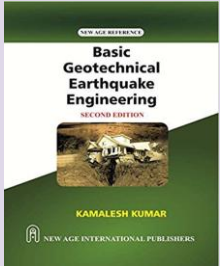

**Dr Sandhya Mehrotra, Department of Biological Sciences**, was short-listed for a Visiting Professor Fellowship under the "INSA-CAS International Bilateral Exchange/ Collaboration Program 2017" by the Indian National Academy of Sciences.

**Dr Vishal Saxena, Department of Biological Sciences**, was short-listed for a Visiting Professor Fellowship under the "INSA-CAS International Bilateral Exchange/ Collaboration Program 2017" by the Indian National Academy of Sciences. Dr Saxena also received the "2017 American Society of Microbiology (ASM) and Indo-US Science & Technology Forum (IUSSTF) Indo-UD Research Professorship" award to visit University of South Florida, Tampa, USA.

## significant projects

S.No.	Principal Investigator and Name of the Department	Title of the Project	Funding Agency	Amount and Duration
1.	Dr Krishnendra Shekhawat Department of Mathematics	Mathematics-aided Architectural Design Layouts	SERB (ECRA scheme)	INR 15,44,660 3 years
2.	Dr Manoj Soni, Department of Mechanical Engineering	National Mission Project on Education through ICT: Developing suitable pedagogical methods for various classes (Energy Technology) intellectual calibers and research in e-learning	MHRD, Anchored by IIT Kharagpur	INR 7,00,000 September 2016 to February 2017
3.	Prof Navneet Gupta Department of Electrical and Electronics Engineering	Study on Electronic Transport Behaviour of Carbon Nanotube Based Field Effect Transistors (CNTFETs)	DRDO, New Delhi	INR 20,49,000 3 years
4.	Dr Sandhya Mehrotra Department of Biological Sciences	Introducing cyanobacterial bicarbonate transporters into C3 plants for enhanced photosynthetic performance	SERB	INR 37,72,560 3 years
5.	Prof Sangeeta Sharma Department of Humanities & Social Sciences	Bringing back peacocks to Pilani	BITSAA International (1987 batch)	INR 10,00,000, 1 year
6.	Dr Sailaja Nandigama (PD), Dr Kumar Sankar Bhattacharya (Co-PD) and Prof Sanjiv Kumar Choudhary (Co-PD) Department of Humanities & Social Sciences	Participatory Exclusions of Women and the Poor in Community Forestry: A Comparative Study of Implementation of the RoFR Act Across Three States of India	ICSSR	INR 7,00,000 2 years

## academic attainments of faculty

S.No	Name	Department	Journal / member details	
1.	Dr Kamalesh Kumar	Civil Engineering	Basic Geotechnical Earthquake Engineering, 2 <sup>nd</sup> edition published from New Age International Publishers: 2017.	
2.	Dr Manoj Soni	Department of Mechanical Engineering	Associate member, Solar Cookers International, USA	
3.	Prof. Sangeeta Sharma	Department of Humanities and Social Sciences	Published a book titled Technical Communication: Principles and Practice: OUP, New Delhi, 2017.	



# student round-up

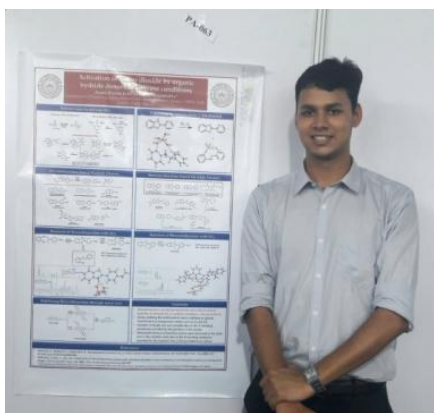
**Vidhi Jain (2014A7PS113P)** won the award of "Citi Women Leader Award (CWLA)" in the event Citi India Diversity Week at Citi India, First International Financial Centre (FIFC) in Mumbai on March 8, 2017. She also won the award "ACM-W Scholar Award for Conference" during presentation at the ACM Student Research Competition (SRC) in a conference on Human Factors in Computing Systems (ACM CHI 2017) in Denver, Colorado, USA during May 6-11, 2017. Ms. Jain also won the award: Mitacs Globalink Research Intern Award for summer internship on machine learning at Simon Fraser University, Burnaby, Canada during May-July, 2017.

Vidhi Jain



**Anant Kumar Jain (2013B2A10849P)** published a paper titled "Benzimidazolines Convert Sulfur Dioxide to Bisulfate at Room Temperature and Atmospheric Pressure Utilizing Aerial Oxygen" in ACS Sustainable Chemistry & Engineering. He also presented a poster in the CRSI NSC-21 (Chemistry) Conference held at IICT, Hyderabad during July 13-16, 2017.

Anant Kumar Jain



**Choksi Neel Dipesh (2013B4A80738P)** attended an International Conference on Electronics, Material Engineering & Nano-Technology and presented a paper titled "Modeling and Simulation of Ion-Sensitive Field-Effect Transistor using TCAD

Methodology" at the Institute of Engineering and Management (IEM), Kolkata during April 28-29, 2017. He also attended the Eighth ISSS International Conference on Smart Materials, Structures & Systems and presented a paper titled "Modeling and Simulation of ISFET using TCAD Tool for Various Sensing Films" at the Indian Institute of Science, Bengaluru during July 5-7, 2017.

**Suvigya Vijay (2015B3A8606P), Amritanshu Jain (2015ABPS0831P), Partho Sarthi (2015A7PS088P)** won the first prize at iTech 2017 codeathon and startup challenge having the team name "the Latch" in Bangalore on July 23, 2017.

→ iTech 2017



**Sahitya Murali (2016H129009P)** received the VATAT scholarship at the Food Safety and Security Summer Program organized by the Manna Center in Tel Aviv University, Israel during June 28-July 28, 2017. This Summer Program is conducted annually by the Manna Center. It is an international program for graduate students. This year it accommodated participants from over 10 different countries.

Sahitya Murali



## Sports Tournament “SPORTECH” held at IIT Delhi

149 students of our Institute participated in the SPORTECH'17 held during February 24-27, 2017 at IIT, Delhi in which 48

colleges and around 1600 students participated. Our students brought laurels to the Institute by securing the following positions.

<b>Athletics:</b>			
<b>Women</b>			
<b>S.No</b>	<b>Event</b>	<b>Name</b>	<b>Medal</b>
1.	1500 m	Harshita Verma	Silver
2.	Long Jump	Neha	Silver
3.	4 X 400 m	Harshita, Verma (Captain), Deepika Poonia, Ritika Dhawan, Chitra.	Silver
<b>Men</b>			
4.	Discuss Throw	Suyash Gairola	Bronze
<b>Tennis :</b>			
<b>Women</b>			
5.	Team	Saniya Dasot (Captain)	Silver
<b>Men</b>			
6.	Team	Surakshit Soni (Captain)	Gold
<b>Table Tennis :</b>			
<b>Men</b>			
7.	Team	Neel Joshi (Captain)	Silver
<b>Football (Men) :</b>			
8.	Team	Abhishek Singhvi (Captain)	Silver

Ajinkya Vyas was awarded the Best Player in Tennis (men) for his outstanding performance. All the members of various teams have made the Institute proud by winning the above medals under the leadership of the Sports Secretary, Mr. Jayshil Joshi (2014B2A80737P) and Mr. Babulal Naik.



## BITS Pilani Student Team wins Silver Position in National KPIT Sparkle 2017

A students team comprising of Mr. Vandit Gandotra, Project Lead (2013B1A3265P), Mr. Piyush Sharda (2013B4A3440P) and Mr. Tanmay Sharma (2013A8PS156P) from the Department of Electrical & Electronics Engineering, bagged the Silver position in the National KPIT Sparkle 2017- Smart City Innovation Challenge. The team's proposal on Efficient Traffic Management was selected from among 1700 projects from all over India and awarded a cash prize of

₹ 2,50,000. The team's prototype was based on the idea to give power to the citizens to report traffic violations and act as Virtual Traffic Officers. It is useful in providing timely support in emergency situations, improving law enforcement and analyzing traffic violation trends.

The final round, conducted in Pune during February 18-19, 2017, was judged by a panel of jury headed by Prof Alberto Vincentelli, professor of EECS at University of California, Berkeley. The award ceremony was graced by Shri Prakash Javadekar, Union Minister, MHRD, Prof R. A. Mashelkar, Ex-DG, CSIR, Dr Kiran Karnik, former President, NASSCOM and Shri Vipin Goenka, GC Member, CRIS among others.

Silver Position in National KPIT Sparkle 2017



## Two BITS Pilani Students nominated for Microsoft World Summit at Seattle, USA

Microsoft Corporation selected two students from BITS Pilani this year for their World Summit along with the World's biggest development conference 'Build' which selected only 100 from a pool of over one lakh applicants. Anshu Agrawal (2015B2A40868P) and Akshit Bordia (2014B4A20593P) attended the Summit held at Seattle, WA, USA during May 10-12, 2017. Akshit and Anshu also played an integral role in organizing Microsoft India's national summit held at BITS Pilani during March 23-26, 2017.

Akshit and Anshu



## Chitrarth Dagar Memorial Award Ceremony

The Department of Mechanical Engineering and the Mechanical Engineering Association of BITS, Pilani, Pilani Campus organised the **Chitrarth Dagar Memorial Award Ceremony** on April 19, 2017 in the memory of Chitrarth Dagar. The parents of Chitrarth, Mr. R. C. Dagar and Mrs. Sunita Dagar, were present to reward the meritorious students with 'Chitrarth Dagar Scholarship'. Prof Ashoke K. Sarkar, Director Pilani Campus and the faculty members of the Department of Mechanical Engineering were also present at the formal gathering to attend the event. The scholarship was awarded to Mr. Harsh Sharma, a third year student of mechanical engineering. Chitrarth was a true music lover and a regular member of Gurukul. This year Mr. Dhisant Sanghani, was awarded with the Music Award, which is given to a member of Gurukul.

Chitrarth Dagar Memorial Award



## BITS Pilani Student Wins National Level 3rd Prize in Youth Money Olympiad 2017

**Ananyashree Garg (2015A7PS0117P)**, a student of Computer Science Engineering, BITS Pilani participated in the Youth Money Olympiad 2017, the largest financial literacy test in India for college students. She was ranked 3<sup>rd</sup> at the national level after the 2<sup>nd</sup> round which was held on May 21, 2017.



## Microsoft announces BITS Pilani as winner of the Imagine Cup 2017

BITS Pilani students' team "Negative Time" comprising Rajat Jain (2015A7PS0549P), Mrigesh Madaan (2015A7PS0146P), Anirudh Krishna (2015A7PS0081P) won the national finals of the Imagine Cup at a conference held by Microsoft in Delhi. Imagine Cup is one of Microsoft's many efforts to transform skill development, nurture budding technologists and foster a collaborative and innovative spirit. BITS Pilani students' team has created a product named "Content Holmes," an online parenting solution that helps parents keep their kids protected from cyber-bullying, depression, and porn addiction. The team attended the event during 24-25, July, 2017 in Seattle, USA.

Winner of the Imagine Cup 2017



**Ms. Roshni Chhabra (2013A1PS0661P)** a Chemical Engineering student of BITS Pilani was declared Winner of the IET India Scholarship Award and received a scholarship of Rs. One Lakh for her presentation on "**Antibacterial Nanoparticles coating on taps and sanitary napkins**". This year 7800 students participated in the contest across the country.

Winner of IET India Scholarship Award



# creative zone

## APOGEE 2017

The 35<sup>th</sup> edition of BITS Pilani's technical fest, APOGEE 2017 - *The Retrofuture* was organised from March 23-26, 2017. This year, the fest featured the legendary cricket umpire Simon Taufel, the famous string theorist Shiraz Minwalla and former Cabinet Minister and advocate, Salman Khurshid.

The technical extravaganza kicked off with the inauguration ceremony, which consisted of enthralling performances by the music club, MIME and dance club which were appreciated by the chief guest for the evening Prof Shiraz Minwalla (theoretical physicist Tata Institute of Fundamental Research) and Guests of Honour Prof Souvik Bhattacharya, Vice-Chancellor BITS Pilani and Prof Ashoke K. Sarkar, Director Pilani Campus. The event was followed by Jeopardy and a performance by Aisi Taisi Democracy whose hilarious satires made the audience laugh.

A nouveau idea, carried over from last year, is the literature fest, Papyrus Trails. The organisers, in an attempt to help inculcate the spirit of literary curiosity, invited a few literary figures to aid this endeavour. The fest hosted former editor of Open magazine,

Mr Manu Joseph, writer and BITS Pilani alumnus, Mr. Shashi Warriar, filmmaker, Mr. Anubhav Shrivastava and photographer cum author, Mr Ryan Lobo. In addition, several workshops were also conducted by various professionals, related to a number of technical fields, including app development, 3D modelling, financial markets, surface computing and ethical hacking.

Events such as the Hackathon and Checkmate saw participation in large numbers. Events such as Ahvaan and Armageddon tested the creativity of participating students. There were multiple events for the financially curious such as Business Master, Stock Market Simulation and Espoir that employ business strategies and intensive analytical thinking to introduce students to the real time trade experience. The technical fest also witnessed several quizzes on different subjects.

An art gallery, a photography exhibition and Mithali, the battle of bands style music competition, were also part of the fest. This year's stand-up comedy show featured the incisive and immensely relatable one-liners of Zakir Khan, Winner of Comedy Central's 'India's Best Stand Up Comedian' and most recently starring in 'On Air with AIB'.

Apogee 2017



## EXTROPY

Extropy 2k17, the first edition of the much awaited Chemical Engineering extravaganza of BITS Pilani, Pilani campus was organized from February 24-26, 2017 by the Department of Chemical Engineering. The inauguration ceremony was graced by Dr H.K. Mohanta, Dr Pradipta Chattopadhyay and Dr A.K.

Pani. Extropy included events such as Industry 101, where students had to bridge the gap between industries and institutional learning to handle some of the fundamental challenges commonly found in industries.

Extropy also included a series of workshops and lectures, a technical workshop on the Chemical Engineering software Aspen

with a prime focus on equipping participants with the technical know-how and applications of Aspen.

## NIRMAAN

One of the biggest achievements of Nirmaan this year was the registration of women empowerment projects as a Self-Help Group under the Amrita Federation of the Women and Child Department, Rajasthan. With this move, the beneficiaries have access to a common Savings bank account in the WCD, Rajasthan. A Sanitation Drive was also conducted in the village of Baas to spread awareness among women about health and hygiene and the importance of sanitary napkins. Besides, career counselling sessions were conducted in two schools. An Effective Public Speaking workshop was conducted in Birla Balika Vidya Peeth and a talk was delivered in two schools by the board toppers of our campus. Also, SOLE personal computers were set up in the Harinagar community.

Self-Help Group under the Amrita Federation



## RAGAMALIKA

Ragamalika, the classical music and dance club of BITS Pilani Campus, organized a spectrum of events in the second semester of the academic year 2016-17. On Founder's day, February 1, 2017 the Thyagaraja Aradhana Program was performed. Many students and professors were gathered in the NAB Music room to sing the golden Panchrathna krithis of the great composer St. Thyagaraja.

In April, the club reverted to its traditions and organized a two-day semester event, Sangamam. The first day was devoted solely to a music concert wherein Carnatic and Hindustani music blended seamlessly as pieces like Ragam Tanam Pallavi, Multani Bada Khyaal, an abhang, a Carnatic-Hindustani jugalbandhi and Shaam-E-Ghazal were performed in the Auditorium. Experimental pieces such as the Flute harmony, Bottle concert and percussion ensemble added flavour to the concert. On the second day of Sangamam, the classic story of the churning of the cosmic ocean or *Samudramanathan* was depicted. In addition to Sangamam, two psenti concerts were also conducted by the seniors of the club. In an attempt to educate club members, as well as non-club members, lecture demonstrations were also conducted periodically by the club, wherein the basics of dance, music and percussion were taken up as subjects.

Dance performance by Ragamalika



# Introducing new faculty

S.No.	Name	Designation	Discipline
1.	Dr Varun Sharma	Assistant Professor	Department of Mechanical Engineering
2.	Dr Pratyush Banerjee	Visiting Assistant Professor	Department of Management
3.	Dr Rajesh Kumar	Assistant Professor	Department of Mathematics

# editorial team



**Editor:** Dr (Ms) Sushila Shekhawat

**Members of the Editorial Committee:** Dr (Ms) Anupam Yadav, Dr (Ms) Archana Kulkarni

**Student Members:** Ms Samakshi Tiwari and Mr Anuj Vashishtha

**Special Thanks:** Mr Ramesh Sharma and the PMRU team



**BITS Pilani**  
Pilani Campus



# mediaspeak



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