

Semester-I notes 2013-14

# bitscan

Pilani Campus

Completing  
**50** Years  
in the service  
of the nation



# editorial

A new issue of BITSCAN arrives just as winter bids us goodbye and summer gears up to take full hold on Pilani campus. The changing season holds many new promises and projects for BITS Pilani. The clock tower looks more majestic and stands tall when we look up from the new academic block that is just getting ready to embrace us fast. The First Semester 2013-14 is inundated with many events, right from conferences to students' carnivals and from film festivals to international collaborations, leading the BITS to the newer heights.

BITS Pilani continues to be the cynosure of young talented students in the country who are aspiring to study science and technology from this prestigious institute. The semester also witnessed 18 board toppers joining BITS Pilani for its various programs under the Direct Admission category.

BITS Connect 2.0, a unique model of multi-campus education in India, pioneered by BITS Pilani, is declared as one of the Silver Edge Award winners for exemplary use of technology in education and research. The award was presented by the magazine, Information Week. The award has reinforced BITS's vision to apply the technology to its best to solve a business problem, improve competitiveness, and deliver quantifiable ROI to stakeholders.

→ BITS Connect 2.0 bags the Edge Award



The Placement Package from Google is yet another milestone of the semester. It is heartening for the students and BITS community at large to know that Google has offered a whopping Rs. 1.44 crore annual package to two of our students, Mr. Thoppilan Romal Devassy and Mr. Kannan Sunder. It is the highest annual package that Google has offered to any student from any Indian campus, in 2013. Two Civil Engineering students, Mr Viraj Voditel and Mr Anvit Kumar Mittal along

→ The two new basket ball courts



with Faculty member Dr. Amit Goel won the First Prize in the all India design competition, 'Student Design Challenge' at Mumbai on 26th October, 2013. The team also received the cash prize Rs 1,20,000 besides the expenses for a trip to Las Vegas, US, to represent India at the global competition.

As always, we are deeply inspired by the contributions of our alumni. Their extraordinary accomplishments illustrate the true meaning and value of the BITS education system. Mr M P Sharma, an alumnus of the 1967 batch and Founder of Techmart retail chain gifted two newly built state of the art basket ball courts to the institute. Mr. Sharma dedicated the eight layered Latex synthetic basket ball courts built on the Gymnasium ground to the memory of his loving father on 18 September 2013.

Apart from major cultural and sports fests, Pilani campus also organized Junoon 2013 – a special sports festival for differently abled children, offering them a platform to open up their hearts and unfold their wings. Junoon 2013, with a participation of over 140 differently abled children, was organized in association with NGOs : Muskaan (Delhi), Asha Ka Jharna (Jhunjhunu), Sri Nirmal Vivek (Jaipur), Amla Birla Kendra (Pilani), Akshay Pratisthan (Chirawa) and Disha (Jaipur).

→ Junoon – the celebration called life



To our alumni and students, we convey our gratitude for the many ways you support the work of the university. Your accomplishments, generosity, and service carry our mission around the globe. To our faculty and staff, we offer our heartfelt thanks for your role in helping create one of the leading learning and research communities in the country.

## Convocation 2013

→ Convocation 2013



BITS Annual convocation was held on 4 August, 2014. Dr. K. Srinath Reddy, president of Public Health Foundation of India (PHFI), was the chief guest on the occasion. During the event, 828 were awarded bachelors degrees in engineering, 201 were awarded with masters degree and 47 were awarded doctorate degrees. In addition, five illustrious alumni of BITS were conferred with distinguished alumnus award. They were Mr.

→ Convocation 2013



Pankaj Patel, Executive Vice President (VP) of Cisco Systems for Professional management of business; Mr. Rajesh Hukku, VP, Oracle, for entrepreneurship; Professor SP Kothari, Deputy Dean, Sloan School MIT, for Teaching and Research; Mr. Ramesh Ramanathan Founder of Janaagrah for Public Life and Social Entrepreneurship; Dr. Vijay Chandru, Strand Life Sciences, for Entrepreneurship. During his address, Vice Chancellor B N Jain set the target to increase the share of post graduate and Ph. D. students from the current 12% to 22% by the year 2020, that will reinforce the focus on research.

## 2 BITS Pilani students get Rs. 1.44cr pay offer

The multi-million dollar packages are back, with network and services giant Google hiring two BITS Pilani students, Mr. Thoppilan Romal Devassy and Mr. Kannan Sunder, for an annual package of Rs 1.44 crore each, which is the highest Google has offered to anyone in the country. This package has also become the highest offer to any Indian student in 2013. Both the students, natives of Mumbai and students of computer science, in BITS Pilani, have created history by bagging a whopping \$2,35,000 (more than 1.44 Cr.) annual package from Google.

## MELANGE

→ Melange Theatre Festival



The department of **Humanities and Social Sciences**, in collaboration with the Hindi Drama Club, organized **Melange: A Three Day Theatre Festival** from 7-9 October 2013 to provide its students and faculty an exposure to the world of professional theatre. It was for the first time that a theatre event of this magnitude was organized at BITS Pilani wherein some of the best productions in live entertainment and dramatics today in India were brought to the campus. Artists featured included Vinay Pathak, Rajat Kapoor, Piyush Mishra, Yashpal Sharma and prominent alumni

→ Melange Theatre Festival



members from National School of Drama, Delhi. The Theatre extravaganza was coordinated by Dayesh Jaswal and directed by Prof. Dinesh Yadav and Prof. Geetha. B from the department of Humanities and Social Sciences. Swayambhu Foundation, a prominent name in the field of arts and dramatics, curated the festival.

# academia: a confluence of ideas

Seminars / Conferences /  
Workshops / Training  
Programmes

## Autumn School on Cosmology

→ Inauguration of the Autumn School



The Department of Physics, in association with IUCAA, Pune, organized an Autumn School on Cosmology on 5-15 November, 2013. The school started on a high note. And the inauguration was attended by the Vice Chancellor of BITS, Prof. B N Jain, Director, Prof. G Raghurama, HOD of Physics, Prof. Debashis Bandyopadhyay, Professor of Physics, Prof. R R Mishra, Convenor of the Workshop, Prof. T G Sarkar and other faculty members and students of the department, along with participants who came from various universities. The school aimed at providing an exposure to the basic aspects of cosmology and areas of frontier research. The school is meant to benefit PhD students, who have recently joined and are planning to pursue research in cosmology.

## Conquest 2013

The grand finale of the decadal edition of the highly successful startup competition, Conquest 2013, organized by the Center for Entrepreneurial Leadership of BITS Pilani, was held on Sunday, 15 September 2013 at FICCI Auditorium, Tansen

→ Conquest 2013



Marg, New Delhi. The hottest startup of India award, sponsored by Groupon India, was bagged by Freshmentors. The prize included Rs. 2 lakh in equity-less money and a host of resources. The runner up was iTraveller and they took home Rs. 1 lakh. India Rising Star Award, sponsored by Gandhi Capital, was won by Mr. M. Paani. In addition, the winners had Rs 1 crore worth of incubation opportunities by prestigious firms like Seedfund, Euphoria Consulting, Kae Capital, Sequoia Capital, Mumbai Angels and TLabs and Rs 2 Crore in resources by Groupon India, Amazon India, ScaleArc, Foradian, Pressdoc and many more. The grand finale, attended by over 400 people, featured brilliant pitches by the ten finalists, and also hosted two panel discussions.

Prof. G Raghurama, Director, BITS Pilani - Pilani Campus graced the occasion and was joined by Prof. Arya Kumar, Unit chief, ED&IPR Unit, for inauguration.

## New Minor Programme

The Department of Humanities and Social Sciences proposed a Minor programme in Film and Media and got its approval for the First Degree students of the Institute. It is for the first time that BITS Pilani has introduced a Minor programme in any discipline.

# enriching the learning experience

## visits by faculty

**Mr. Jaipal A**, Lecturer, Department of Pharmacy, visited 2013 AAPS: Annual Meeting and Exposition, held during November 10 - 15, 2013, in San Antonio, Texas, USA for Poster presentation on the topic *Buccal Mucoadhesive Drug Delivery Systems of Buspirone: Effect of*

→ Mr. Jaipal A



*HPMC and Mannitol on Drug Release and Mucoadhesion Behavior using Factorial Design Approach* (Abstract number R6233).

**Dr. Trilok Mathur**, Assistant Professor, Department of Mathematics visited Ivan Frankov National University, Lviv, Ukraine to present his research paper titled *Sufficient Conditions for*

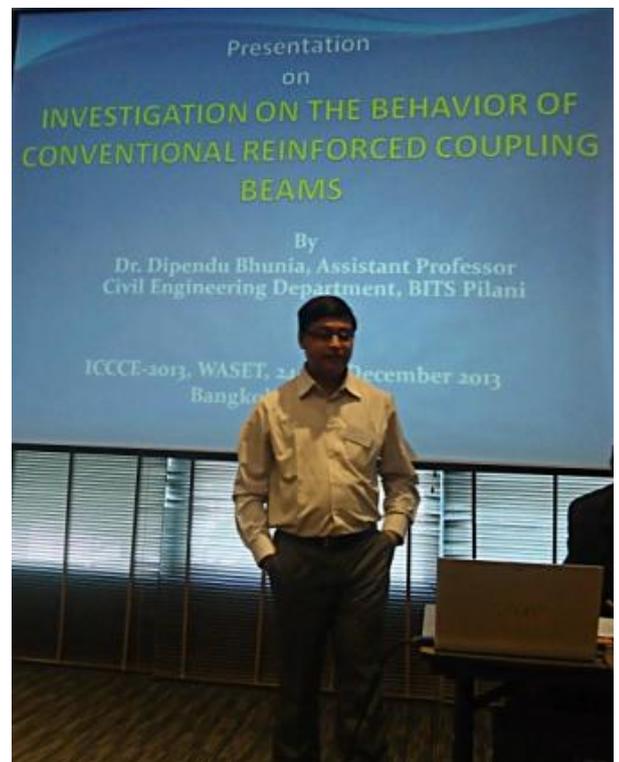
→ Dr. Trilok Mathur



*Generalized Sakaguchi Type Function of order  $\beta$*  in the International Conference on Complex Analysis and Related Topics from 23-28 September 2013.

**Dr. Dipendu Bhunia**, Department of Civil Engineering, presented a paper entitled *Investigation on the Behavior of Conventional Reinforced Coupling Beams*, in the International

→ Dr. Dipendu Bhunia



Conference on Construction and Civil Engineering (ICCCE-2013), during 24-25<sup>th</sup> December, in Bangkok Thailand.

# significant projects

Principal Investigator and Name of the Department	Title of the Project	Funding Agency	Sanctioned Date	Amount and Duration
Dr. Monalisa Mishra <i>Biological Sciences</i>	Role of Conserved oligomeric golgi complex (COG7) gene in the morphogenesis of hearing organ in drosophila	DST	September 11, 2013	INR 2375000 3 Yrs
Dr. Sudeshna Mukherjee <i>Biological Sciences</i>	A Mechanistic analysis of the role of pro-inflammatory cytokines in induction of epithelial to mesenchymal transition in hepatocellular carcinoma	DST	October 4, 2013	INR 1680000 3 Yrs
Dr. S B Singh <i>Civil Engineering</i>	Study of Structural Response and Strengths of Thin-Walled FRP Composite Girders	CSIR	October 31, 2013	INR 1432000 3 Yrs
<i>Mathematics</i>	DST-FIST	DST	November, 2013	INR 4750000 5 Yrs
<i>EEE &amp; I Department</i>	DST-FIST	DST	November, 2013	INR 6900000 5 Yrs
Dr. Tapomoy Guha Sarkar <i>Physics</i>	The Study of post-reionization HI distribution using the redshifted signal and Ly forest towards understanding cosmic accelation	DST	November 19, 2013	INR 1038000 3 Yrs
Dr. Rajdeep Chowdhury <i>Biological Sciences</i>	Identifying microRNA signatures associated autophagy induced chemoresistance in hepatocellular carcinoma	UGC Start up	December, 9, 2013	INR 600000 2 Yrs
Dr. Shilpi Garg <i>Biological Sciences</i>	Analysis of hypothetical and putative proteins dual targeted to apicoplast and mitochondria in plasmodium vivax	UGC Start up	December 9, 2013	INR 600000 2 Yrs
Dr. Monalisa Mishra <i>Biological Sciences</i>	Role of Protein kinase D in eye development of Drosophila	UGC Start up	December 9, 2013	INR 600000 2 Yrs
Dr. Subhajit mazumdar <i>Chemical Engineering</i>	Application of Enriched Microbial Biofilter for Metal Detoxification in Industrial Wastewater	UGC Minor	December 18, 2013	INR 200000 2 Yrs
Dr. Bharti Khungar <i>Chemistry</i>	Synthesis, Characterization and applications of Novel Ionic Liquid supported Metal Complexes	UGC Major	December 20, 2013	INR 1340800 3 Yrs
Dr. Ajay Kumar Sah <i>Chemistry</i>	Synthesis, Metallochemistry and Reactivities of D-Glucose derived Glycoconjugates	UGC	December 20, 2013	INR 913300 3 Yrs

Principal Investigator and Name of the Department	Title of the Project	Funding Agency	Sanctioned Date	Amount and Duration
Dr. Utkarsh Maheshwari <i>Chemical Engineering</i>	Recovery of Multiple Metals ions from Industrial Wastewater using Adsorption	UGC Minor	December 20, 2013	INR 200000 2 Yrs
Dr. Kiran Bajaj <i>Chemistry</i>	Study of native chemical ligation at tryptophan and aspergine sites and its application in peptide synthesis	DST	December 27, 2013	INR 2550000 3 Yrs
Dr. Anupam Singhal, <i>Civil Engineering</i> and Prof. S.K. Verma, <i>Biological Sciences</i>	Development of copper Bio-leaching methodology/technique from Tailing waste at Hindustan Copper Limited, Khetri	Ministry of Mines, New Delhi	December 27, 2013	INR 3038000 3 Years
Dr. Anil Bhanudas <i>Pharmacy</i>	Effect of Esculetin on Angiotensin II in rat thoracic aorta under hyperglycaemic and hyperinsuliaemic conditions	UGC Major	December 30, 2013	INR 1343000 3 Yrs

## distinguished lectures at BITS Pilani

SPEAKER	DESIGNATION AND ORGANIZATION	TOPIC	DATE
Prof. Phani Tetali,	Associate Professor, IDC, IIT Mumbai	<i>Creativity and Animation</i>	16 October 2013.
Mr. Kishore Chakraborti	Vice President, McCann Erickson	<i>Crafting of An Advertising Campaign</i>	7 November 2013

## invited lectures by faculty

**Prof. S B Singh**, Civil Engineering Department, delivered the keynote lecture on *Ductile FRP System and its Structural Applications* at the 5<sup>th</sup> Asia-Pacific Young Researchers and Graduates Symposium YRGS 2013, MNIT Jaipur on 15 October 2013. He also delivered an invited poster presentation on *Sustainable Concrete Infrastructures* at UKIERI Showcase Event held on 14 October 2013 at British Council Division,

New Delhi. Prof. Singh presented a paper entitled *Mechanical properties of Recycled Coarse Aggregate (RCA) Concrete* (co-authors Mahalakshmi, N. and Nikesh Thammishetti ) at the 2<sup>nd</sup> International Conference On Sustainable Innovative Techniques in Civil and Environmental Engineering (SITCEE - 2014), at Jawaharlal Nehru University, New Delhi, January 4-5, 2014. Further he delivered an expert lecture on *Innovative Ductile Cementitious Composites for Structural Applications* at the UltraTech Cement Technical Lecture in partnership with the Institution of Engineers, Baroda, Institution of Engineers Building, on 28 September 2013. His paper *Response of Near Surface Mounted (NSM) CFRP Strengthened RC Beams*, has been

accepted for oral presentation at first International Conference on Mechanics of Composites, Stony Brook University in Stony Brook, NY, USA. His other paper, *Effect of Shear Deformation on Flexural Response of Laminated Composite I-Beam* (co-authored with Himanshu Chawla, and Pankaj Munjal) has also been accepted for an oral presentation in the same conference.

**Prof. Rajiv Gupta**, senior professor, Civil Engineering department, delivered an invited lecture on *E- Construction Quality Management* in National Conference on Recent Trends and Innovation in Civil Engineering during 15-16 November, 2013 at BRCM College of Engineering and Technology. Prof. Gupta also presented on *Thermal performance of static*

→ Prof. Rajiv Gupta delivers a talk



*sunshade and brick cavity wall in composite climate* in the 8th Conference on Sustainable Development of Energy, Water and Environment System, to be held at Dubrovnik, Croatia, organized by the University of Zagreb and Cologne University of Applied Sciences and Aalborg University and sponsored by UNESCO during 22-27 September 2013.

**Prof. Arya Kumar**, Department of Economics and Finance, delivered a key note talk on the paper titled *Managerial Challenges in 21<sup>st</sup> Century - Insights from Geeta* in the 7<sup>th</sup> International seminar on Spiritualism in Education, organized by Desh Bhagat University Gobindgarh between 27 and 28 Sept 2013. Prof. Kumar also delivered an invited talk on *Business Plan Preparation and Business Model* in the workshop organized by VIT Jaipur in association with NEN between 10 and 11 Nov. 2013 at Jaipur. He participated in a panel discussion on *Rajasthan as an Emerging*

→ Prof. Arya Kumar



*Education Hub* organised by the HT Campus Conclave on Excellence in Education in Jaipur on 27 December 2013.

**Dr. Rajesh Mehrotra**, Assistant Professor, Biological Sciences, was a visiting scientist to Okinawa Institute of Science and Technology, Japan. (July 1 to December 30, 2013).

**Dr. M S Soni**, Assistant Professor, Mechanical Engineering delivered a talk on *Spiritual Thermodynamics* on December 13, 2013 at Tolani Maritime Institute, Induri, Pune. He delivered a talk on *Spiritual Thermodynamics* on 16 September 2013 at Mahindra & Mahindra Ltd. Hingna Road, Nagpur. Dr. Soni delivered a talk

→ Dr. M S Soni



on *Advancements in Refrigeration and Air conditioning* on 23 September 2013 at Rao Pahlad Singh College of Engineering, Mahendragarh. He delivered a motivational talk on *Higher education: Issues and Challenges* at the Technological Institute of Textile & Sciences, Bhiwani, on 26th July 2013.

**Prof. G Venkiteswaran**, Associate Professor, Department of Mathematics, delivered the Key note address on *Quasi-Monte Carlo Methods* at the fifth International Conference on Advanced Computing, 2013, at the Madras Institute of Technology, Chennai on 18 December 2013, Chennai.

**Dr. Sangeeta Sharma**, Associate Professor, Department of Humanities and Social Sciences, delivered an invited talk on *The Importance of verbal communication in Group Discussion* on 6 October 2013 at JKBS, Gurgaon. She also delivered an invited talk on *Role of Etiquette and*

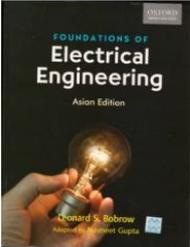
*Personality in Interviews* at MNIT, Jaipur on 26 - 27 October 2013.

**Dr. Anshuman Dalvi**, Associate Professor, Department of Physics, delivered an invited talk on *Fast Ionic Glass-Ceramic Composites for Solid State Ionic Devices: An Overview* in the 10<sup>th</sup> National Conference on Solid State Ionics at the Indian Institute of Technology, Kharagpur on 24 December 2013. He also delivered a talk on *Solid State Lithium Ion batteries: Trends and Challenges* in the National Micro and Nano Electronic Systems and Devices, 2013 at the Vivekananda Institute of Technology, on 9th August, 2013.

## academic attainments of faculty

S.No.	NAME	DEPARTMENT	JOURNAL / MEMBER DETAILS
1.	Prof. Sanjeev Kumar Choudhary	Humanities and Social Sciences	<p>Nominated on the editorial boards of the following international journals - <i>English Language Teaching</i> published by the Canadian Center of Science and Education, Toronto and <i>International Journal of English Linguistics</i> published by the Canadian Center of Science and Education, Toronto.</p> <p>Reviewed one paper entitled <i>Conjunctions in "Argumentative Writing of Libyan Tertiary Students"</i> for the <i>International Journal of English Linguistics</i> and another paper entitled <i>"Developing the Speaking Accuracy and Fluency for Chinese EFL learners"</i> for <i>English Language Teaching</i>.</p>
2.	Prof. S. B. Singh	Civil Engineering Department	<p><i>Ductile FRP System and Its Structural Applications</i> Proceedings of the 5<sup>th</sup> Asia-Pacific Young Researchers and Graduates Symposium, YRGS 2013), MNIT Jaipur, October 15-16. (co-authors, S. Madappa, and Nikesh Thammishetti)</p> <p>Acted as an Advisor to UPSC, New Delhi, for conducting personality test of Engineering Services Examinations candidates (January 13-17, 2014)</p> <p>Examined Master of Technology Thesis entitled <i>Effect of Column Stiffness and Orientation on Seismic Behaviour of Buildings with Vertical Irregularities</i>, submitted by Ankit Batra (Roll No. 211024), NIT Kurukshetra, September 08, 2013.</p> <p>Chaired two sessions (session no. 2 and 4) at the 5<sup>th</sup> Asia-Pacific Young Researchers and Graduates Symposium (YRGS) held at MNIT Jaipur, October 15-16, 2013.</p>
3.	Dr. Raj Kumar Gupta	Assistant Professor, Department of Physics	<p>Reviewed the paper <i>Nucleation and growth of unsubstituted copper phthalocyanine aggregates in trifluoroacetic acid / water mixtures</i>, <i>Journal: Colloids and Surfaces A</i> (Elsevier Publication) Authors: Fatemeh Ghani, Torsten K. Sievers, Hans Riegler. From Max Planck Institute for Colloids and Interfaces, Germany</p>

S.No.	NAME	DEPARTMENT	JOURNAL / MEMBER DETAILS
4.	Prof. Rajiv Gupta	Senior Professor, Civil Engineering Department	<p>Reviewed the following:</p> <ol style="list-style-type: none"> <li>1. <i>Prediction of Compressive Strength for HPC Mixes containing Different Blends Using ANN</i>, Computers and concrete an International journal, Korea, 1.9.13</li> <li>2. <i>Thermal Performance Assessment of Recycled Paper Mill Waste - Cement Bricks Using Small Scale Model Technique Ms. No. EYENG-408R1</i>, Journal of Energy Engineering, ASCE, 1.9.13</li> <li>3. <i>Indoor Environmental Quality: Review of Parameters and Assessment Models ASRE-2013-0008 (Re-Revised)</i>, Architectural Science Review, Sydney, Australia, 16.10.13</li> <li>4. <i>Production of Concrete Paving Blocks by the Stabilization/Solidification Process - Evaluation of Concrete Properties</i>, Environmental Technology, Taylor &amp; Francis, 16.10.13</li> <li>5. <i>An Assessment of Residential Water Efficiency Practices in Nigeria – A Case Study of Zaria</i>, Journal of Civil Engineering and Architecture, David Publishing Company, USA, 25.11.13</li> </ol>
5.	Prof. Arya Kumar	Department of Economics and Finance	<p>Paper titled <i>Managerial Challenges in 21<sup>st</sup> Century - Insights from Geeta</i> appeared in the book titled <i>Spiritualism in Education</i> ed. by Dr. Shalini Gupta and published by Desh Bhagat University, Gobindgarh</p> <p>Reviewed paper, <i>Geographical Indicators in India – Theory and Praxis</i>, for Council of Social Development Southern Regional Center, Hyderabad.</p> <p>Reviewed 5 papers for the Quarterly Journal brought out by ISS, University of Jaipur, 1 paper for Journal brought out by IMS, Greater Noida, and 1 paper for Abhigyan, Management, Journal from FORE School of Management New Delhi.</p> <p>Conducted one day workshop jointly organized by J K Lakshmi Pat University and NEN of Wadhvani Foundation, for the benefit of around 100 students and few Faculty Member from different institutions, in Jaipur on 18 August 2013.</p> <p>Participated in a meeting organized by DFID in association with the Technology Development Board, DST on a new programme - Innovative Ventures and Technologies for Development (INVENT) , aiming to establish and strengthen specialized incubators to support innovative entrepreneurs having a focus on inclusive growth on 30 August 2013, at New Delhi.</p> <p>Participated as an expert member for the selection of universities to be funded under University Innovation Center in Biotechnology, implemented by Biotechnology Industry Research Assistance Council (BIRAC), Department of Biotechnology, Government of India, on 2 September 2013 at New Delhi.</p> <p>Expert Member in a panel of experts for screening business plans short listed by the Rajasthan Financial Corporation</p>

S.No.	NAME	DEPARTMENT	JOURNAL / MEMBER DETAILS
			<p>under their newly launched scheme – Yuva Udyamita Protsahan Yojana on 17 September 2013, in Jaipur.</p> <p>Member of the Board of Studies in Management Studies of the Academic Council of IIS University Jaipur for a period of 2 years w.e.f. July 2013.</p> <p>Participated in the Faculty Advisory meeting of National Entrepreneurship Network on 28 and 29 November 2013 at Bangalore, to discuss and deliberate upon future strategy for implementation of entrepreneurship development programmes.</p>
6.	M.S. Soni	Assistant Professor, Mechanical Engineering	<p><i>Concentrating Solar Photovoltaic</i> (co-author Padmini M) in the IV<sup>th</sup> International Conference Proceedings on Advances in Energy Research, IIT Bombay, Mumbai, India, 10-12, December, 2013 pp: 434-440</p> <p>Nikhil Gakkhar, M.S. Soni <i>Techno-Economic Parametric Assessment of CSP Power Generation Technologies in India</i>, IV<sup>th</sup> International Conference Proceedings on Advances in Energy Research, IIT Bombay, Mumbai, India, 10-12 December 2013 pp: 376-384</p>
7.	Dr. Jitendra Panwar	Head, Department of Biological Sciences	<p>Manuscript entitled <i>Antimicrobial activity of Piper nigrum L. and Cassia didymobotyra L. leaf extracts on some selected food borne pathogens</i> submitted to Asian Pacific Journal of Tropical Disease (Elsevier). (December 4, 2013).</p>
8.	Dr. Navneet Gupta	Assistant Professor and Convener, DRC Department of Electrical & Electronics Engineering	<p><i>Foundation of Electrical Engineering: Asian Edition</i> Oxford University Press, New Delhi, 2013. Leonard.S.Bobrow adapted by Navneet Gupta</p>
			
9.	Dr. Sangeeta Sharma	Associate Professor, Department of Humanities and Social Sciences	<p>Member of the Editorial Board of the E-Journal for Humanities in Technical Education, Marwadi Education Foundation's Group of Institutions, Rajkot, Gujarat, 2013</p> <p>External member of the Board of Studies for Desh Bhagat University, Mandi Govindgarh</p> <p>Reviewed three papers for International Conference on Management and Business Innovation, 2013 (ICOMBI2013) at the Malaviya National Institute of Technology Jaipur, May18-19, 2013</p>
10.	Prof. Anshuman Dalvi	Associate Professor, Department of Physics	<p>Reviewed Manuscripts for Solid State Ionics (Elsevier).</p> <p>Elected Executive member (west) for Indian Solid State Ionics Society for Next two years during the 10<sup>th</sup> national conference on Solid State Ionics, held at Indian Institute of Technology, Kharagpur during 21-14 December 2013.</p>
11.	Dr. Santosh Kumar Padhi	Assistant Professor, Department of Biological Sciences	<p>Reviewed a manuscript in the international journal <i>Biocatalysis and Biotransformation</i> in Dec 2013.</p>

# joining hands:

## MoUs

Sustaining the collaborative efforts, BITS Pilani signed the MoUs with the following institutions and organizations in India to promote academic and research interactions and cooperation:

1. "n+i" Networks of Engineering Institutes called "n+i", France.
2. Vedanta Aluminium Limited, Jharsuguda
3. TATA Technology Limited, Pune
4. ETA Network of Education & Training, Dubai, UAE.

# accolades and achievements

**Prof. Arya Kumar**, BITS Pilani was conferred with an award for contribution in Entrepreneurship Development by Hindustan Times in HT Campus Conclave organized on December 27, 2013 at Jaipur.

**Prof. R P Pareek**, Professor, Department of Pharmacy, was conferred with a **Distinguished Senior Physician Award** for his outstanding contribution in the field of medicine at the 24<sup>th</sup> Annual Conference of Association of Physicians of India, Rajasthan Chapter, held at S.P. Medical College, Bikaner on September 14, 2013. The award was handed over by Dr. B.M.

→ Dr. R P Pareek gets the Distinguished Senior Physician Award



Hegde, a famous Cardiologist and a former Vice-Chancellor of the Manipal University.

**Prof. R Mahesh**, Professor, Department of Pharmacy, was awarded with N.N. Dutta prize at IPSCON CONFERENCE- 2013 for his article published in Indian Journal of Pharmacology in Bangalore in the month of December 2013. The article entitled *Antidepressant-like activity of (4-phenylpiperazin-1-yl) (quinoxalin-2-yl) methanone (4a), a novel 5-HT receptor antagonist: An investigation in behaviour-based rodent models of depression* was co-authored by Baldev Kumar, Ankur Jindal, Shvetank Bhatt, Thangaraj Devadoss and Dilip Kumar Pandey. This award is given to the best article published in the Indian journal of pharmacology in 2013.

**Prof. Anshuman Dalvi**, Associate Professor, Department of Physics, has been recently selected for Indian National Science Academy INSA International Bilateral Exchange Programme fellowship for 2014. He will be working as a visiting scientist INSA fellow in the faculty of Physics, Department of Solid State Ionics, Warsaw University of Technology, Poland for 2 months during summer vacation.

**Dr. Javid Ali**, Assistant Professor, Department of Mathematics, got the best research paper presentation award for *Coincidence and common fixed points of non-self mappings and an application* in National Conference on Role of Mathematics in Advancement of Science & Technology held at BSNV PG College, Lucknow during October 18-20, 2013.

# student round-up

**Mr. Siddhant Jain** (2010B3A7506P) presented a paper, *Study of a peer-instruction pedagogy for teaching mathematics and science to high-school students and its scalability as a model for affordable education* in the 14<sup>th</sup> International Conference on *Education Research* held in Seoul, South Korea during October 16 - 18, 2013. Details of the event can be found on: <http://www.icer.or.kr/>

**Mr. Nikhil Gakkhar** (2010PH06431P) presented a paper *Techno-Economic Parametric Assessment of CSP Power Generations Technologies in India* with Dr. Manoj S Soni (Mechanical Department). The authors presented this paper in the International Conference on Advances in Energy

Research ICAER 2013 held at IIT Bombay, Powai, during December 10-12, 2013. This paper was done under the guidance of Dr. Manoj S. Soni.

**Mr. Akash Saxena** (2010A7PS168P) presented a paper entitled *Interactive Medical Diagnosis System*, in Proceedings at the 5<sup>th</sup> International Conference on Intelligent Human Computer

→ Mr. Akash Saxena



Interaction IHCI 2013, Sydney, Australia on December 5, 2013. The paper will be published in special issue in the Australian Journal of Intelligent Information Processing Systems.

**Mr. Amitabh Aggarwal** (2012A2PS472P) was among the top six teams to complete the arena and 4<sup>th</sup> among 40 teams (142 secs to complete

→ Amitabh Aggarwal



the track) in the event 'HOVER ON' in the TECHFEST, IIT Bombay held during January 3 -5, 2014.

**Mr. Viraj Voditel** (2010B3A2577P) and **Mr. Anvit Kumar Mittal** (2012A2PS443P), Civil Engineering students, along with faculty member/mentor, **Dr. Amit Goel**, won the first prize in the all India design competition, *Student Design Challenge* in BIM Design Category held at Mumbai on October 26, 2013. The name of the event was "Autodesk 3D Student Design Challenge". The team

→ Winners of the All India Design Competition



received a cash prize of Rs 1,20,000, besides the expenses for a trip to Las Vegas, US, to represent India at the global competition, 'Autodesk Panorama' was held as a part of Autodesk University 2013 Conference on December 3-5, 2013. Besides this, the students, Mr. Viraj Voditel, Mr. Anvit Kumar Mittal and Mr. Akshay Singh Bisht also won the Second Prize in the AutoCAD Design (Buildings) category of "Student Design Challenge" and received a cash prize of Rs. 30,000. This news has also been featured on the BITS Pilani website <http://www.bits-pilani.ac.in/Pilani/index.aspx>. "Student Design Challenge" was jointly organized by design software leader, AutoDesk and premier institutions across the country, including IIT Delhi, IIT Gandhinagar, School of Planning and Architecture, Delhi and JJ College of Arts, Mumbai. It reached out to over 30,000 students and received participation from more than 1000 teams.

**Mr. Chandradeo Arya** (2013A7PS015P), along with two other students Saumya and Yumkhum received the Aditya Birla Group scholarship. The award ceremony was organized at the ITC Grand Central, Lower Parel, Mumbai on September 21, 2013.

→ Mr. Chandradeo Arya is being awarded the ABG Scholarship



**Mr. Apoorv Shrivastava** (2010A4PS353P), **Mr. Pulkit Goyal** (2010A4TS332P), **Mr. Apoorv Umang Saxena** (2011A7PS051P), **Mr. Kaustubh Nawade** (2011B5A3610P), **Mr. Tarang Shah** (2011A8PS279P), **Mr. Akshay Morey** (2012B3A1605P), **Mr. Shreyas Dixit** (2012A8PS384P) were among the members in the team AcYut which stood 4<sup>th</sup> in the competition Robocup 2013, Netherlands.

**Ms. Vidya Madhavan** (2011ABPS629P) stood 1<sup>st</sup> in Rajasthan Zone All India Essay Writing Event.

→ Ms. Vidya Madhavan



This event was conducted by the United Nations Information Centre for India and Bhutan and Shri Rama Chandra Mission.

**Ms. Neophy Bishnoi** (2012A8PS313P) received the 2013 Spirit of Invention Scholarship Award with a scholarship of 1300 US Dollars at the award ceremony held at TAJ Vivanta, Gurgaon. This award was given considering her overall performance both in academics and extra-curricular activities, as well as a project she did in the Apogee last year (a safety sensor device).

→ Ms. Neophy wins the Spirit of Invention Scholarship



# renewing the bond

## BITSAA

### 40<sup>th</sup> Year Re-Union Visit of 1968-73 Batch

36 alumni members of the 1968-73 batch and their families made their re-union visit on the 10 November, 2013. This is the 40th yearly re-union of the alumni. For the alumni, it was an occasion

→ A Reunion of 1968-73 Batch



to rejoice, re-build ties with old friends and renew their bonds with their alma mater. For the faculty and the students of the Institute, it was a happy occasion to welcome the alumni members, take pride in their success stories and show them the new buildings, laboratories and the changing landscape of Vidya Vihar.

# caring beyond our walls

## A brief description of the achievements of Nirmaan Organisation during Aug- Dec, 2013:

Nirmaan Organization (Regd.No:1119/07) was founded on February 12, 2005 by a group of BITS Pilani students with a passion to work for a better India and to fulfill their responsibility towards our less privileged brothers & sisters. Eight years later, that same passion is shared by over 700 volunteers and full-timers. It now has full-time

operations in four states of the country-Andhra Pradesh, Goa, Karnataka and Rajasthan and chapters in other places like Mumbai and Bhubaneshwar, that are at a nascent stage currently. The biggest source of motivation to the volunteers is the vision of Nirmaan: 'to realize an India where every Indian enjoys Justice, Liberty, Equality and Fraternity'. They propose to do this through grass-root level projects focusing on the areas of education, women empowerment, sustainable community development and socio-technological innovations. Nirmaan-Pilani chapter has more than 100 dedicated student volunteers working in the nearby villages, which have benefitted the community.

**Livelihoods initiatives:** Two self-help groups have been established in Khedla and Baas wherein the organization provides life-skill training to underprivileged women and an opportunity to earn a livelihood. They produce products like kurtas, agro products, etc. and sell in the nearby Pilani markets and at the Oasis stall in the BITS campus.

**Educational initiatives:** Initiative such as adopting government schools, to improving educational quality and infrastructure, to providing bridge-program to child-labourers and admitting them to private schools using Right to Education Act, have impacted over 100 students. Through tele-counselling and career workshops, Nirmaan has provided career guidance to over 1000 children. Through its scholarship and mentorship program, 80 students have been supported to continue their education. Nirmaan also runs evening schools for the all-round development of students at the BITSAA Pilani Resource Centre and village of Baas, where one can see the change in the attitude of the children and parents towards education in the last 8 years.

**Community initiatives:** Volunteers use participative community development approach involving the community to discuss their issues and take ownership of their problems. Through awareness and motivation, they help them solve the same. Organizing medical camps, engaging with people through social and cultural events, cleanliness drives etc. are all directed at this aim.

**Socio-Technological initiative:** As students of a premier engineering institute of India, volunteers aim to contribute to the society by finding technical solutions to grass-roots level problems. Nirmaan also organizes a number of events at BITS, Pilani to engage with the larger BITSian community so that there can be a sharing of ideas and people are motivated to contribute, in their own ways to the 'Nirmaan' or building of this nation.

## MANTHAN

Manthan was organized by CAG, where students from all over India could participate and contribute their solutions to 14 critical challenges of Present India. These 14 themes were chosen from a list of surveyed problems. BITS Pilani team chose the theme, "Sowing Prosperity: Boosting Agricultural Prosperity". With the decline of workforce in agriculture, productivity, the yields of crops have become serious concerns that need to be dealt with carefully. So, the team came up with a holistic approach to solve this problem. A management organization is setup which will give financial assistance and research guidance to the farmers to use their land efficiently so that it can generate profits. They will be provided with information about new farming techniques. Tenders will be issued for getting potential buyers. Some problems we might face in future, but this process ensures employability of farmers giving them security in financial terms as well as providing better quality food to the people. Under the theme Sowing Prosperity : Boosting Agricultural Productivity, our team bagged First Runners Up prize

Team members are: Mr. Debasis Rath, Ms. Ankita Dey, Ms. Bhawana Goel, Ms. Pankhuri Jain and Ms. Suhani Gupta

Prizes were distributed on 3rd October 2013.

Website links:

<http://indiancag.org/manthan/winners-manthan>

[http://www.slideshare.net/slideshow/embed\\_code/25949235?rel=0#](http://www.slideshare.net/slideshow/embed_code/25949235?rel=0#)

## UGC Centre for Women Studies

UGC Centre for Women Studies (CWS) has undertaken diverse range of academic and field activities with the objective of empowering women and upliftment of their families in the social, economic and health fields. The Centre organizes conferences, workshops and training programs and conducts research studies on diverse issues of women and society. The Centre has initiated various activities during 2013.

In the series of its workshops related to pertinent issues of society, UGC center for Women Studies in BITS Pilani, organized a workshop on health and nutrition on September 13, 2013. On the onset of the workshop, Dr. Sangeeta Sharma (Coordinator, Center for Women Studies) introduced the spokesperson Dr. Sanjana Bhat, a renowned Gynaecologist. During her session, Dr. Bhat emphasized that our health is dependent upon three pillars- nutrition, exercise and hygiene. She further elaborated the sources of nutrition and

how our body functions properly with the help of these. UGC Centre for Women Studies, in collaboration with the Nirmaan organization, had organized a Candle march and a marathon in September 2013 in support of women's safety and justice for the victims of gender abuse and also distributed prizes for the event (marathon). The centre also organized a debate competition with the school students of Pilani campus on "*Whether women justify reservation policy in Panchayats*" on November 16, 2013, at BITS, Pilani. The objective of the competition was to provide a space for opening up / sharing the views

→ Dr. Sanjana Bhat



regarding the reservation bill, to help the girls to understand their political rights as citizens and to give opportunities to the young to observe and respond to the issues so that they can help in further policy making. The coordinator of the centre, Prof. Sangeeta Sharma, after the welcome address, introduced the judges of the competition. She coordinated the event along with Ms. Madhusmita Das. Students from different schools of Pilani, i.e. Birla Balika Vidyapeeth, Birla Sishu Vihar and Birla School Pilani participated in this competition. Judges for this competition were

Dr. Devika and Dr. Kumar Sankar Bhattacharya, from the Department of Humanities and Social Sciences, BITS Pilani and Mr. M S Srikar Reddy, a student of Electrical, Electronics, Engineering branch of BITS Pilani. After the presentations, audience and participants were allowed to express their views on the issue. Results were announced and prizes were distributed by the judges. In the end, Madhusmita Das proposed a vote of thanks. Along with these activities, a research study on "Women in T.V. Advertisements and its Impact on the Society" is presently going on in the Centre.

## BOSM

The BITS Open Sports Meet (BOSM) was conducted successfully from September 18 – 22,

→ The Inauguration of BITS Open Sports Meet 2013



2013. Continuing with its tradition, the institute organized an intensive coaching camp from

September 3 - 17, 2013. SAI coaches were invited to prepare Institute's teams in various events. More than 1100 outstation students from all over the country and Sri Lanka participated in the meet. The meet exhibited as always, usual an excellent sportsmanship and enthusiasm.

→ The BITS Open Sports Meet 2013



## OASIS 2013

BITS Pilani celebrated the 43<sup>rd</sup> edition of OASIS, its annual cultural festival, from October 24 - 28, 2013. This festival, managed entirely by the

→ The Inauguration of OASIS 2013



→ Live Performance by Faran Akhtar



students, was chiefly sponsored by Kellogg's, MTS, Vasline, WOODLAND and Parikramainc. It attracted about 1500 outstation participants from nearly 90 colleges situated all over the country.

The festival hosted as many as 75 events which were based on music, art, dance, photography, drama, literature and every other cultural aspect of the college life. The theme of the festival was 'The Elements'.

The Music show by Mr. Farhan Akhtar, a killer comedy show –N20 featuring 'The viral fever' and Mr. Vipul Goyal were the few among the several highlights of the festival. This festival also featured rock bands like 'Soulmate'. Dance, music and pottery workshops were held by professional performers and artists. Events like Rapwars, Desert Duel, street plays, fashion parade, DJ night, Mr. and Ms. OASIS etc. caught the limelight. The programme enabled the students from all over the country to stage and showcase their talents.

The National Service Scheme and NIRMAAN along with several NGOs set up an exhibition for the sale of village potteries, garments and other handicrafts. In words of Mr. Vaibhav Singh, the General Secretary of BITS Students' Union, "OASIS is a 96 hours of unadulterated thrill, a

→ Dance in OASIS 2013



ceaseless euphoria that overwhelms every being at hands to witness it".

## SPIC MACAY

SPICMACAY, BITS-Pilani chapter conducted the first concert of the semester on September 27, 2013 by Ms. Mahua Shankar, a seasoned classical kathak danseuse. She was accompanied by artists- Pt Mithilesh Kumar Jha and Janaab Murad Ali Khan. Ms. Mahua Shankar is an extraordinary young dancer who subtle innovations to the Kathak repertoire while preserving the tenets of its classical style.

## MATRIX

This year MATRIX started out with an overwhelming turnout for the recruitments. A movie screening session was held by MATRIX for the first years to understand MATRIX's view point and interact better with the club. A total of fifteen first years and an M.E. student were recruited this semester. Early September saw an internal review of the book 'The Catcher In The Rye' by four second year students – Sai Venkat, Kriti Jain, Pankaj Singla and Arya Roy. This event was intended to introduce the new recruits to the world of book and movie reviews moderated by Amulya Srivastava. The club also had a meeting with the Professors-in-charge Dr. Kumar S Bhattacharya and Dr. Geetha B. who guided the students in charting out plans for the next semester, The meeting ended with a dinner.

BOSM and MATRIX screened a movie – 'The Blindside' and conducted two events: Not your average Football quiz: The X-Rated Challenge by Trishanu Borah and Prathamesh, and Long Story Short, an online captioning event both of which were highly appreciated by the participants. On October 21<sup>st</sup>, MATRIX conducted its annual general quiz 'Paradox' for the sixth consecutive year after its inception, covering areas of literature, art, sports, movies and everything which was attended by many a quizzing enthusiasts on campus. The quiz was conducted by Jashanjot Kaur, Praneet Udyavar, Mohit Chandel and saw the enthusiastic involvement and support from the new recruits – Gyanendra, Shaista, Arshad and Sayan.

The days preceding Oasis saw active and eager participation of all the members in the planning and brain storming sessions. In Oasis, MATRIX organised two events and screened three movies. Triathlon, the flagship event of MATRIX, was larger than its earlier versions and was attended by over 600 people. It was conducted by Sai Venkat, Ricky Lohkar, Praneet Udyavar and Neil Dave. It included a treasure hunt based on the

theme of popular television series 'Game of Thrones'. Movie Quiz was conducted by Rishabh Kaul with the help of Sayan Maitra and was rated as excellently researched and brilliantly conceptualized, even by very experienced quizzers. The movie screening had sponsorship from Dapple, a BITSian start-up. The movies that were screened were 'The Sin City', 'The Game' and 'A Wednesday'. These movies were chosen by popular vote on social media by the people who attended Oasis.

On November 15<sup>th</sup>, there was an external book introduction session. The panelists and their respective books were:

- Trishanu Borah - The Lowland by Jhumpa Lahiri
- Amulya Srivastava - A Fine Balance by Rohinton Mistry
- Nitish Mittal - The Trial by Franz Kafka
- Chetan Aditya - The Revolution Highway by Dilip Simeon

The entire introduction session was very engaging and introduced most of the audience to many subtle complexities of a books. This was followed by an external session consisting of an all-faculty panel on November 22<sup>nd</sup>. This was a much awaited event by not just MATRIX members but many other literature enthusiasts on campus. The events that were the centres of attention.

- Dr. G Hari Nair's stimulating, informative and enlightening talk on 'The Treacherous Terrain of Translation'.
- Prof. A K Sarkar's introduction to the much celebrated Feluda series with the book 'The Emperor's Ring', a part of the series, to elucidate the greatness of Satyajit Ray's works.
- Prof. Surekha Bhanot's introduction to the book 'Shesh Prashn' by Sharat Chandra Chattopadhyay which opened the magnificence and the complexities of Indian literature to the students

All in all, the panel showed the student community the beauty of vernacular literature.

MATRIX concluded the semester with a valedictory ceremony where the contributions of all the club members and the external panelists were acknowledged and appreciated. The ceremony was graced by the presence of many faculty members like Dr. Kumar S Bhattacharya, Prof. A.K. Sarkar, Prof. Surekha Bhanot and Dr. Devika Sangwan.

Apart from the activities and events mentioned above, MATRIX also had many book exchange and movie discussion sessions. There were internal movie screenings for the members of the club.

# introducing new faculty

S.No.	Name	Designation	Discipline
1.	Dr. Somdatta Bhattacharya	Assistant Professor	Humanities and Social Sciences
2.	Dr. Rikmantra Basu	Visiting faculty	EEE
3.	Dr. Bibhas Ranjan Sarkar	Assistant professor	CHEM
4.	Dr. Praveen Kumar A V	Assistant professor	EEE
5.	Mr. Kavindra Kandpal	Lecturer	EEE
6.	Dr. (Ms) Sonal Mazumder	Assistant professor	CHEG
7.	Dr. Srinivas Kota	Assistant professor	ME
8.	Dr. Karumbaiah Chappanda Nanaiah	Assistant professor	EEE

## editorial team



**Editor:** Dr. Gajendra Singh Chauhan

Members of Editorial Committee: Dr. Somdatta Bhattacharya and Dr. Anupam Suneet Yadav

Special Thanks to Ms. Suman Luhach



**BITS Pilani**  
Pilani Campus

# mediaspeak



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