

# MNIT NEWSLETTER

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MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

# MNITJ NEWS

the quarterly news magazine

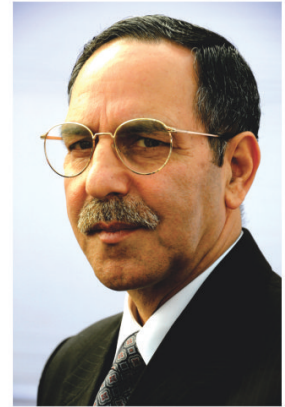
## Director's Message

The year draws to a close and it is time now to look back upon the events that shaped the destiny of the Institute. It has been a year of intense activity in all spheres: academic, cultural, sports and co-curricular. The Golden Jubilee Year Celebrations that began in September last year and ended in August this year transformed the campus into a hub of intellectual conglomeration. Many illustrious dignitaries graced our portals which included former President of India, Shri Abdul Kalam ji, Shri Pranab Mukherji, President of India, Shri Kapil Sibal, Minister of Communications and Information Technology, Dr. Farooq Abdullah, Minister for New and Renewable Energy, Government of India, Mrs. Margaret Alva, Honourable Governor of Rajasthan and Shri Ashok Gehlot, former Chief Minister of Rajasthan. The year also heralded major additions to the infrastructure of the Institute which include setting up of Centre of Excellence and the Center for Materials Research, equipped with state-of-the-art equipment providing global standards for advanced research and developmental activities, up gradation of the existing and setting up of new laboratories, a new Convention centre and lecture hall complex, hostels for boys and girls and many more. Many new R & D projects too were granted to the Institute, and significant collaborations made with institutes of renown, which reflects the respect this Institute commands in terms of its research capability. Our dear students too have brought us prestige by their achievements in various spheres, be it sports, academic or cultural. In this quarter also, the various conferences and workshops conducted included those on applications of nanotechnology, behaviour of materials, and other such relevant areas.

The MNIT Newsletter has recorded these milestones with diligence and as it enters its third year, I am confident it will continue to reflect the accomplishments of this Institute. I wish you all a very successful year ahead.

Jai Hind

**Prof. I. K. Bhat**



## *Vision*

*To create a center for imparting technical education of international standards and conducting research at the cutting edge of technology to meet the current and future challenges of technological development.*

## *Mission*

*To create technical manpower for meeting the current and future demands of industry; To reorganize education and research in close interaction with industry with emphasis on the development of leadership qualities in the young men and women entering the portals of the Institute with sensitivity to social development and eye for opportunities for growth in the international perspective.*

# Workshops/Conferences/Short-Term Courses/Training Programmes Conducted

❖ The Entrepreneurship Development Cell conducted an Entrepreneurship Orientation Programme for first and second year students on September 18, 2013. Mr. Rajeev Surana, Managing Director- Gravita india ltd was the Chief Guest along with Ms. Srishti Sharma, founder of Mommy's kitchen.



A quiz competition for the audience was also organized on this occasion.



❖ The Industry-Institute Partnership Cell organised a five-day Technical Induction Programme for the engineers of Bosch Ltd. from September 30 - October 5, 2013. The course was attended by fifteen participants.

The programme was coordinated by Dr. Awadhesh Bhardwaj, Dr. Amit



Singh and Mr. M.L. Meena.

❖ A three-day refresher course was organised by the **Department of Metallurgical and Materials Engineering** on "Characterisation & Deformation Behaviour of Materials for Strategic Application" from October 3-5, 2013 for faculty members, research scholars, M.Tech, and B.Tech students under TEQIP-II, program. Total participants were 63. Dr. Manojit Ghosh from BESU, Kolkata delivered a talk on "Work Hardening of Aluminium Alloys" and "Anisotropy studies for Aluminium Alloys". The Convener of the refresher course was Dr. R.K. Duchaniya.

❖ A Short-Term Course on Nanotechnology and its Application was organised by **Department of Metallurgical and Materials Engineering** from October 7-11, 2013. The Co-ordinators were Prof. Upender Pandel, Dr. R. K. Duchaniya and Dr. Madhu Agarwal.

A Faculty Development program (FDP) on "**Demystifying Derivatives**" was organized by

the **Department of Management Studies** from October 7- 11, 2013. A total of twenty nine participants attended the FDP.



The inaugural ceremony was graced by the presence of the Chief Guest, Prof. K.K. Aggarwal (Chairman, BOG, MNIT) Guest of Honour Prof. Prabina Rajib (Professor, VGSOM IIT-KGP) along with Dr. G. S. Dhangayach (Head, DMS) and, Dr. Satish Kumar (FDP coordinator). Prof. Prabina Rajib (VGSOM IIT-KGP), Dr. Gourishankar (IIT-KGP), Dr. Vinodh Madhavan (IIM-Lucknow), Dr. Roopam Kothari (IIS University, Jaipur), Dr. Pankaj Kumar (ITS, Ghaziabad), Dr. Anand (IIM-Ranchi), Dr. Vipul Kumar Singh (IMT, Nagpur) and Dr. Manoj Kumar (IIM-Rohtak) delivered the course content during the program.

❖ **Department of Civil Engineering** organized the 5th Asia and Pacific Young Researchers and Graduates Symposium (YRGS) on October 15-16, 2013. The Coordinator was Dr. Sandeep Choudhary.

❖ **Department of Physics** organized an International School on Ion Beam in Material Science and International Conference on Nano-structuring by Ion Beams (ICNIB 2013) jointly with University of Rajasthan Jaipur and Inter University Accelerator Center New Delhi from October 21-25, 2013. More than 150 participants from different institutes of India as well as abroad participated in this



event.

Invited speakers included A.C. Pandey, BU Jhansi, A.I. Titov, St. Peterburg Russia, B.K. Panigrahi, IGCAR Kalpakkam, C. Trautmann, GSI Darmstadt, Germany, Fouran Singh, IUAC New Delhi, H. Hofsaas, GoettingenUnv, Germany, L. Tribedi, TIFR Mumbai, R. Cuerno, Madrid Spain, R. Sharma, BAMU Aurangabad, S. Sarkar, IIT Ropar, Shu Seki, Osaka Japan, T. Mohanty, JNU New Delhi, T. Som, IOP Bhubaneswar, Xin Ou, Dresden, Germany, Y. K. Vijay, UOR Jaipur, Y. Takeda, Tsukuba Japan.

❖ A two-day workshop on “**Etiquette and Skill Development for Interviews**” was conducted by **Placement and Training Cell**, MNIT, Jaipur from October 26-27, 2013.



More than one hundred and seventy students participated in the programme.

The inaugural ceremony was graced by Mr. Rajat Agarwal, Managing Director, Gravita India Limited as the Chief Guest, Mr. Shoumendra Roy, Group Vice President, Head Talent Acquisition Manufacturing, Reliance Industries Limited. The trainers included Dr. Sangeeta Sharma, Associate Professor, BITS, Pilani and Dr. Gursimran Duggal, Director, GSD Consulting Services Limited, Jaipur. The Coordinators of the conference were Dr. Monica Sharma and Dr. Amit Kumar Singh.

❖ **Department of Metallurgical and Materials Engineering** organised a one-day workshop on “**Prospects of Engineering Students in Automobile sector and**



**Expectations of Industry from Students**” on November 9, 2013 under TEQIP Phase-II. The

Conveners were Prof. Ashok Sharma and Prof. Upender Pandel.

❖ A two-day workshop on “Vision and contribution of Mahamana Pt. Madan Mohan Malaviya” held on August 07-08, 2013. The Speakers on the occasion were Prof. P.C. Dandia, Dr. S. V. Mazumdar, Dr. S. S. Chaddha, Dr. R. S. Sharma, Dr. Chandra mani Singh, Dr. Ajay Kumar Sharma, Dr. A. K. Singh, Sh.V.K. Sharma, Mr. B. L. Vaidya, Mr. EVD Shashtri. The Convenor of the workshop was

## Projects / Civil Works / Research Grant Received

Dr. Jyoti Joshi.

❖ A Research project on “Politics of Alienation and Secessionism in North-Eastern India”, funded by ICSSR New Delhi for Rs. four lakhs has been sanctioned to Dr. Vibhuti Singh Shekhawat of Department of Humanities and Social Sciences, for a duration of 18 months.

❖ A Research project on “Strategically development of metalsilylene complexes; Potential catalyst for unique organic transformations and silylene transfer reactions” has been sponsored to Department of Chemistry by Council of Scientific and Industrial

sanctioned amount Rs.31,50,400/- for three years. Dr. Raj Kumar Joshi, Department of Chemistry is the Principal Investigator.

❖ A Research Project on “Tailoring the structural, electrical and optical properties of Ag-ZnO and Ag-TiO<sub>2</sub> nanocomposite thin films for various application using energetic ions” has been sanctioned to Department of Physics by IUAC/UGC New Delhi, sanctioned amount Rs.6,51,000/- for three years, Dr. Rahul Singhal is Principal Investigator.

❖ A Research Project on “Development of MoSi<sub>2</sub> Heating Elements” has been

Rs.17,50,000/- Prof. Upender Pandel is Principal Investigator along with Prof. M.K. Banerjee, Prof. A.K. Bhargava, Dr. V.K. Sharma Dr.Vinod Kr as Co-Investigators.

❖ Dr. Amit Kumar Singh of Mechanical Engineering Department has been sanctioned a project on “Effective Product Development through Integration of Reverse Engineering and rapid Prototyping” by the Science and Engineering Research Board, for three years, sanctioned amount Rs. 24,44,000/-.

❖ A Research Project on “Development of Novel Artificial Naked Eye Fluoride ion

is Principal Investigator along with Dr. Madhu Agrawal as Co-Investigator.

❖ A Research Project on “Strengthening of Research and Teaching Facilities in the Department (FIST)” has been sanctioned to Department of Civil, sponsored by DST. The project for five years and amount sanctioned Rs.67,00,000/-. Dr. Mahesh Kumar Jat is Principal Investigator along with Dr.Urmila Brighu as Co-Investigator.

❖ A large number of equipment procured in Phase I was installed & commissioned at the Materials Research Center. These include Transmission Electron Microscope, FE- Scanning Electron Microscope, SPM, Vacuum Coating Unit, CVD, DMA & Spectrophotometers. Chairman, BOG, Dr.K. K.Agrawal visited the Centre and inspected the state of art equipment placed in different labs.



sanctioned to Department of Metallurgical and Materials Engineering, funded by Naskar and Company, Howrah, W.B. for the period of two years, sanctioned amount

Receptors” has given to Department of Chemistry, by the DST, WTI. The duration of the Project is three years and the amount sanctioned is Rs.29,77,200/-. Dr.Ragini Gupta

## Distinguished Visitors/Expert Lectures in the Departments

❖ **Materials Research Center (MRC)** organized an invited lecture by Dr. Shahzada Ahmad, Senior Research Scientist, Abengoa Research, Campus Palmas Altas, Sevilla, Spain on “Energy Conversion in Mesoscopic systems” on



Mr. Rachit Agarwal, Volunteer  
SPIC MACAY JAIPUR

## Visit/Expert Lectures Delivered by Institute Faculty

October 30, 2013.

Dr. Ahmad discussed the present research scenario in development of solar cell batteries and their application in various social and commercial purposes.

❖ **Department of Civil Engineering** organized an invited lecture on October 31, 2013. The speaker was Dr. Kailash Gupta (Disaster Management Specialist) on **“Pressure Release Model for Disaster Management”**.

❖ A lecture-cum-demonstration on Indian culture/ classical music/dance was organized on November 17, 2013 under the SPIC MACAY of the Creative Arts & Cultural Society. More than 160 students of MNIT participated in it.



The speakers who delivered the lecture are Mrs. Mani Arora, Chair Person SPIC MACAY Jaipur, Mr. Shivam Gupta, Secretary SPIC MACAY, Rajasthan State,

❖ Dr. Sandeep Shrivastava of the **Department of Civil Engineering** was invited to deliver an expert lecture in CII (Confederation of Indian Industry) seminar on October 04, 2013 on the topic **“Emerging Trends in Construction”**.

❖ Dr. Harlal Singh Mali was elected Member of Academic Council of 3D Student Design Competition, earlier CAD

Based on his long association with the event through student mentoring and organising the competition Dr. Harlal Singh Mali, Assistant Professor in Department of Mechanical Engineering has been elected as member of Academic Council and MNIT Jaipur as the Academic Partner Institute for the Competition. Grand Finale



for the Mechanical Design 3D Student Design Challenge 2013 was held on October 24, 2013 at IC&SR building of IIT Madras.

❖ An Invited Lecture on 'Professional, Ethics and Values' by Dr L.K. Kothari was organised for the students of the Institute on September 30, 2013, by Department of Humanities and Social Sciences. Dr Kothari, in his address enlightened the audience about the role of ethics in everyday life. He also focused on the ethical choices which should be made and the moral duties that should be performed by individuals to ensure a healthy, happy and stress-free life.



Design Contest is a nationally renowned 3D CAD competition with final event held annually at IIT Madras.

An Invited Lecture on “Attitude, Time Management and Consistency” by Ms Harsha Rohit, CEO, HR, Trikaya, Jaipur, was organized for the students of the Institute by the

Department of Humanities and Social Sciences, on November 18, 2013.



❖ A lecture on “Assessment and Grading” was delivered by Director, Prof. I.K.Bhat, on November 19, 2013, especially for the benefit of new faculty members. Prof. Bhat in his talk explained the concept of evaluating and grading and reiterated that the primary duty of all faculty members was to ensure that classes were held regularly and that they remained up-to-date both in their method of teaching and the content.

## Students Achievements

❖ The BOSM'13 sports tournament took place from September 18-22 2013 in BITS, Pilani, Rajasthan.



MNIT created history in the medal tally of achieving 41 medals (09-Gold, 19-Silver & 13-Bronze) and also stood second in overall position in the BOSM'13 meet.



❖ After Team Ashwa the Team “Dazzles” keeps the Flag of MNIT Jaipur high at SAE Efficycle 2013. SAE Efficycle is an intercollegiate design & fabrication competition for under-graduate and graduate students where teams have to design and fabricate an energy efficient human powered vehicle. Team DAZZLES under the mentorship of Dr.Harlal Singh Mali successfully cleared the virtual simulation round of SAE Efficycle and competed the main event at Chandigarh in October 2013.

A total of 10 engineering students, 9 from Mechanical Engineering and one from ECE after 3 months of hard work fabricated the vehicle. The vehicle had many innovations on go-green, low cost etc.

The team was financially supported through TEQIP Phase-II project. For innovatively using Autodesk Inventor(R) in CAD and CAE application the team got appreciation from Autodesk(R) India and the case study will find place in Autodesk University



Extension India 2013 Summit being held in Mumbai on 19 Dec 2013.

❖ मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर में दिनांक 11-9-2013 से 25-9-2013 के मध्य दिनांक पखवाड़ा 2013 का आयोजन किया गया। पखवाड़े का उद्घाटन दिनांक 11-9-2013 को किया गया। इस अवसर पर कार्यक्रम के मुख्य अतिथि प्रधानमंत्री की आर्थिक सलाहकार परिषद के सदस्य एवम् राजस्थान आयोजन बोर्ड, जयपुर के उपाध्यक्ष प्रो. विजयशंकर व्यास थे। उल्लेखनीय है कि प्रो. व्यास भारतीय प्रबंध संस्थान, अहमदाबाद के पूर्व निदेशक हैं। कार्यक्रम के विशिष्ट अतिथि इन्स्टिट्यूट ऑफ इंजीनियर्स राजस्थान राज्य के केन्द्र के अध्यक्ष एवं राजस्थान राज्य विद्युत उत्पादन निगम लि. के पूर्व अध्यक्ष डा. सुधीर कुमार कल्ला थे। हिन्दी पखवाड़ा 2013 के दौरान हिन्दी से सम्बंधित 6 प्रतियोगिताओं का आयोजन किया गया। पखवाड़े के दौरान, हिन्दी वाद-विवाद, लिखित एवं मौखिक हिन्दी प्रश्नोत्तरी, अशुभाषण हिन्दी निबंध लेखन एवम् काव्य पाठ की प्रतियोगिताएँ आयोजित की गईं। इन प्रतियोगिताओं में संस्थान के छात्र-छात्राओं एवम् कर्मचारियों ने उत्साहपूर्वक भाग लिया। हिन्दी पखवाड़ा 2013 की मुख्य विशेषता यह रही कि इस में एक दो दिवसीय हिन्दी तकनीकी पत्र प्रस्तुतिकरण संगोष्ठी का आयोजन





इन्स्टिट्यूट ऑफ इंजीनियर्स (इंडिया) के सहयोग से किया गया। इस संगोष्ठी का विषय व्यवसायिक शिक्षा में हिन्दी भाषा का संवर्धन था।

पखवाड़े की अन्य विशेषता राजभाषा के महत्त्व को दर्शानेवाली हिन्दी की एक लघु नाटिका का मंचन रहा। इस नाटिका का मंचन स्वामी केशवानन्द इन्स्टिट्यूट ऑफ टेक्नोलॉजी एवम् ग्रामोत्थान जयपुर के छात्र-छात्राओं द्वारा किया गया। पखवाड़े का पुरस्कार वितरण एवम् समापन समारोह दिनांक 25-9-2013 को किया गया। इस अवसर पर कार्यक्रम के मुख्य अतिथि, राजस्थान लोकसेवा आयोग, अजमेर के सचिव डा. कृष्णकांत पाठक थे। कार्यक्रम की अध्यक्षता संस्थान के अधिष्ठाता, संकाय प्रो. रामअवतार गुप्ता ने की। इस अवसर पर डा. सुधीर कुमार कल्ला भी उपस्थित थे। कार्यक्रम में संस्थान के आचार्यों, विभिन्न संकाय सदस्यों, कर्मचारी एवम् छात्र-छात्राओं ने भाग लिया। पखवाड़े के दौरान आयोजित विभिन्न कार्यक्रमों एवम् गतिविधियों के संयोजक डा. राजकुमार व्यास, डा. कैलाश सिंह, डा. ज्योति जोशी, श्री सुशांत उपाध्याय, डा. नुपुर टंडन, डा. सुमन राठौड़, श्री दीपसिंह, डा. सुधीर कल्ला, डा. संगीता व्यास एवम् श्री अंशु सक्सेना थे।

❖ Twenty-six students from MNIT Jaipur participated as interactive audience in the NDTV Talk Show 'My Vote Rocks' which was shot and recorded at the City Palace, Jaipur, on

October 21, 2013. The programme was aired on NDTV 24X7 and NDTV India and has been uploaded on the NDTV



website.

❖ A three-day Vocal Music Workshop by renowned classical singer Shri Gautam Kale from Indore was organized by the Music Society under the auspices of The Creative Arts and Culture



Society (CACs) from October 25 to 27, 2013.

❖ A group of students of classes VI to IX from Jammu and Kashmir visited the Institute on September 16, 2013 under Operation Sadbhawana of the Indian Army. This visit was organised with the objective of motivating students from remote schools in rural areas to pursue higher education in technical institutes after they complete their schooling. The students were accompanied by two teachers and a Major from the army.

Prof. I.K. Bhat, Director MNIT, addressed the students and explained to them the need for goals in life and the dedication and perseverance required in order to achieve these goals. Major Pankaj Pathak presented a memento on the behalf of the group to Prof. Bhat at the end of his address.

❖ On the evening of November 18, 2013, a voting awareness program was organized by Volunteer 4 Better India (Sister NGO of Art of Living) in association with Rajasthan Patrika. The objective of the program was to enlighten students about their voting rights, the reason why should they vote, and the importance of their vote.

## Snippets

### Born in this quarter, these scientists & inventors made significant contributions :

- 1848 Lewis H Latimer, an American inventor who drafted the patent drawings for Alexander Graham Bell's patent application for the telephone, worked for Thomas Edison, and invented an electric lamp.
- 1887 Leopold Ruzicka, contributed studies of natural substances and invented many of the scents for various perfumes. Nobel Prize 1939.
- 1887 Karl Taylor Compton, an American physicist and atomic bomb scientist.
- 1869 Mohandas Karamchand Gandhi, Indian anthropologist, the preeminent leader of Indian nationalism who employed nonviolent civil disobedience and led India to independence.
- 1893 Albert Szent-Gyorgyi, a Hungarian physiologist who discovered vitamin C and the components and reactions of the citric acid cycle. Nobel Prize 1937.
- 1842 James Dewar, British chemist and physicist who invented the Thermos in 1892.
- 1915 John Sheehan, invented a method for the synthesis of penicillin.
- 1725 Nicolas Joseph Cugnot, invented the first automobile.
- 1907 Lord Todd, Scottish biochemist who investigated the building blocks of heredity. Nobel Prize 1957
- 1864 Louis Lumiere, made the first motion picture in 1895, and invented camera equipment for making, and a projector for viewing movies.

### Editorial Team -

Coordinator:-  
Dr. (Mrs.) Nupur Tandon

Members:-  
Dr. Ragini Gupta  
Dr. Madhu Agrawal  
Sh. Anshu Saxena  
Sh. Deepak Atolia  
Ms. Shveta Tripathi