

MNIT NEWSLETTER

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MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

MNITJ NEWS

the quarterly news magazine

Director's Message

The MNIT campus is always abuzz with a plethora of activities and has become a dynamic venue where brilliant minds from all over the world converge and share their vast reserves of knowledge and skills. It gives me immense pride to state that as a result of the collective effort of the faculty, students and staff over the past few years Malaviya National Institute of Technology Jaipur today ranks among the top twenty technical institutions of the country. I am hopeful of its acquiring greater heights in the years to come.

The various conferences, training programs and workshops in this quarter focused on such relevant areas as demand management, digital devices and systems, spatial analysis technology, watershed development and data analytics. Experts from reputed institutes and organization in India and abroad delivered talks on wide-ranging topics and brought fresh insights into various fields of learning.

As part of our vision to incorporate relevance and symbiosis in technical education, an innovative initiative was launched this semester in the form of a partnership between MNIT Jaipur and the University of Illinois for students of learning in Community (LINC), an interdisciplinary learning programme, wherein MNIT provided LINC students the opportunity to study and learn in the context of societal viability.

Education is what we imbibe-from our books, our peers, our teachers and our surroundings. As we move towards our goals, we must always keep in mind that we owe more to the world than it owes us. Each of us can and must do his or her bit to help build a universe that will nurture our future generation.



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.

Prof. I. K. Bhat

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

❖ **Department of Mathematics and Department of Computer Science and Engineering**, in collaboration with National Institute for Technical Teachers Training and Research (NITTTR), Chandigarh, hosted a National Conference on Mathematical Analysis and Computation (NCMAC)-2015 from February 20-21, 2015. The event aimed at bringing leading computer scientists and mathematicians together to find new interdisciplinary dimensions in the recent and developing fields in both domains.



The Inaugural function began with the traditional Saraswati Vandana and lamp lighting ritual. Invited dignitaries were offered a warm welcome, followed by welcome address by Dr. Namita Mittal, Convener, NCMAC-2015. The Chief Guest for the occasion was Dr. M.P.Poonia, Director, NITTTR, Chandigarh and Guest of Honour was renowned mathematician, author and professor Dr. J.L.Bansal.



A total of 72 papers were presented and 5 invited talks were held during the two day conference. NCMAC-2015 awarded 2 prizes for best paper presentations consisting of cash prize and certificate in Mathematics and Computer Science, respectively. Mr. Deepak Bansal and Ms. Deepa Modi were awarded Best Paper presentation awards in Mathematics and Computer Science respectively.

❖ A two-day Short Term Training Programme was organized on “**Demand Management: Potential and Options**” for the Engineers of PHED, Govt. of Rajasthan from March 16 - 17, 2015. The programme was coordinated by Dr. Mahesh K. Jat & Prof. Sudhir Kumar and sponsored by CCDU, WSSO, PHED, Govt. of Rajasthan.



❖ A one-week Short Term Training Programme was organised on “**Spatial Analysis Technologies and GIS Database Creation for Watershed Applications**” for the engineers of Watershed Development and Soil Conservation Department, Government of Rajasthan from March 20-24, 2015. The Programme was coordinated by Dr. Mahesh K. Jat & Prof. Sudhir Kumar the programme was sponsored by DWDSO, Govt. of Rajasthan.



❖ A one-week Short-Term Training Programme on 'Research Implications of Econometrics and Quantitative Techniques' was organized by **Department of Management Studies** in collaboration with The Indian Econometric Society (TIES) from March 20 -24, 2015. Forty-five faculty members and research scholars from all over the country participated in the workshop. The workshop was organized with the main purpose of training young researchers and teachers to gain exposure to applied econometrics, computer applications and empirical analysis.



Dr. Dipti Sharma Coordinator, introducing the objectives of the STTP on "Research Implications of Econometrics and Quantitative Techniques"

The training programme was convened by Prof. G.S. Dangayach, Head of Department and was coordinated by Dr. Dipti Sharma and Dr. Monica Sharma. The chief guest of the inaugural function was Mrs. Smita Sharma, Head Economic and Policy Research, Jaipur Division, Reserve Bank of India. Prof. Ashok Bapna, former member State Planning Board Government of Rajasthan and Chairman of the Working Group on Education was Guest of Honour.

The five day's programme was headed by Dr. K. Shanmugan from TIES. It comprised of 19 theory sessions and 4 software practice sessions engaged by experts: Dr. K. Shanmugan, Associate Professor, MS University, Baroda; Dr. Balwant Singh, Former Advisor & Monetary Consultant, Reserve Bank of India and Prof. Vinish Kathuria, Professor, Department of Management Studies, IIT Bombay.

❖ A Short-Term Training Programme on Advance Digital Devices and Systems was organized by Department of **Electronics & Communication Engineering** from March 28 - April 02, 2015. The STTP was coordinated by Mr. Amit M. Joshi and Dr. Samar Ansari. The expert lectures were delivered by Prof. R.M. Patrikar, (VNIT- Nagpur), Prof. M. Hasan, (AMU-

Aligarh), Dr. Anand Darji (SVNIT-Surat), Mrs. Rasika Dhavse (SVNIT-Surat) and Dr. Naushad Alam (AMU-Aligarh). There were around 40 participant of different engineering colleges from all over india.



❖ **Department of Electronics and Communication Engineering** organized a half-day workshop entitled "Scope and Authoring of Research Articles" on April 17, 2015. There was a good response to the workshop and was attended by 45 UG, PG and PhD students of MNIT, Jaipur. The event was coordinated by Dr. M. S. Ansari, Dr. S. J. Nanda, Dr. M. Ravi Kumar and Mr. Amit M. Joshi.



❖ A one-week Short-Term Training Programme was organised on "**Spatial Analysis Technologies and GIS Database Creation for Watershed Applications**" for another batch of engineers of Watershed Development and Soil Conservation Department, Govt. of Rajasthan during April 17-21, 2015. The Programme was coordinated by Dr. Mahesh K. Jat & Prof. Sudhir Kumar and sponsored by DWDS, Government of Rajasthan.

❖ A four-days Short-Term Training Programme (STTP) on "Autodesk® Fusion 360: Design the Future" was organized by **Department of Mechanical Engineering Department** during May 10-13, 2015. The

programme was designed and coordinated by Dr. Harlal Singh Mali, mainly for the students of B Tech (Mechanical Engineering), currently studying in their 1st and 2nd year. A total of fifty-five participants benefitted from the STTP. The objective of this workshop was not only to understand the state of the art in cloud based CAD/CAE technologies but also to work in collaborative mode especially for their student projects and in design careers thereafter. Sufficient hands-on practice was provided during the training and each student submitted their idea to 3DStudentDesign competition website. The resource person of this programme was Dr. Ramesh Pudale of Autodesk India, Bangalore. Autodesk Student Expert, Mandeep and Devang volunteered for the programme for its smooth conduction especially during hands-on practice.



❖ A one-week Short-Term Training Programme was organised on **“Planning of Watershed Development Using Geospatial Techniques”** for the engineers of Watershed Development and Soil Conservation Department, Government of Rajasthan from May 01-05, 2015. The Programme was coordinated by Dr. Mahesh K. Jat and Prof. Sudhir Kumar and sponsored by DWDSC, Government of Rajasthan.

❖ A three-day National Workshop was held from May 21-23, 2015 on Data Analytics under Convener-ship of Prof. M.C. Govil, HOD and coordinated by Dr. Namita Mittal and Dr. Santosh Vipparthi. Topics ranged from Text Mining to Big Data Analytics were covered.

The goal of the workshop was to impart knowledge on the basics of Data Science Analytics and the real-time challenges faced by it and how to tackle them. It was intended for students of various levels including B.Tech, M.Tech and PhD and for the faculty members. 60 students and faculty members from all over

Rajasthan participated in it.



The sessions were delivered by industry persons such as Mr. Vijay Nadadur CEO, Tationem, Bangalore and Dr. Sameep Mehta from IBM and academician, Prof. R.K. Agrawal, JNU Delhi and MNIT Faculty members.

Certificates were distributed to all the participants who attended the workshop by Dr. Namita Mittal.

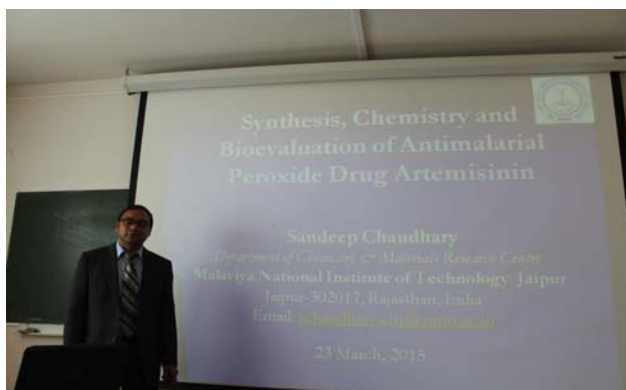
Distinguished Visitors/Expert Lectures in the Departments

❖ Eighteen undergraduate engineering students and two professors from The Ohio State University, Columbus, United States of America visited MNIT Jaipur on May 13, 2015. The group visited Guest Houses, Hostels, Sports Grounds & Medical Facilities, Prabha Bhawan, Central Canteen, Material Research Center, Advance Manufacturing & Mechatronics Laboratory, and E-Resource Centre. Dr. Harlal Singh Mali, Assistant Professor in Mechanical Engineering organized their tour of the campus. The tour was appreciated by the visitors and they were particularly impressed to note the state-of-the-art facilities for students at highly affordable rates.



Visit/Expert Lectures delivered by Institute Faculty

❖ **Dr. Sandeep Chaudhary**, Assistant Professor, **Department of Chemistry** was invited by the Department of Organic Chemistry, Faculty of Chemistry, Perm State University, Russia March 23, 2015 to deliver the lecture on topic "**Synthesis, Chemistry and Bioevaluation of Antimalarial Peroxide Drug Artemisinin**" as part of DST-RFBR Indo-Russian Joint Research Project. Altogether 60 students including faculty members, and the Ph.D research scholars of Department of Organic Chemistry attended this lecture.



❖ **Dr. Sandeep Chaudhary**, Assistant Professor, **Department of Chemistry** was invited by the Department of Chemistry, Faculty of Chemistry, Perm State University, Russia on 25 March, 2015 to deliver the lecture on topic "**Synthesis of Aza-heterocyclic compounds via transition metal-catalyzed direct arylation strategy**" as part of DST-RFBR Indo-Russian Joint Research Project. Altogether 80 students including faculty members, and the Ph.D research

scholars of the Department of Chemistry attended this lecture.



❖ **Dr. Pradeep K. Jaiswal**, CSIR Research Associate, **Department of Chemistry** was invited by the Department of Chemistry, Faculty of Chemistry, Perm State University, Russia on March 27, 2015 to deliver the lecture on topic "**Development of novel organo-catalyzed C-C bond forming reactions: Application to the direct synthesis of highly substituted tetrahydrocarbazoles and carbazoles**" during visit along with **Dr. Sandeep Chaudhary**, Assistant Professor, **Department of Chemistry** as part of DST-RFBR Indo-Russian Joint Research Project. Altogether 70 students including faculty members, and the Ph.D research scholars of the Department of Chemistry attended this lecture.



Faculty Achievements

❖ **Dr. Sandeep Chaudhary**, Assistant Professor, **Department of Chemistry** became the **Fellow of Indian Chemical Society (F.I.C.S.)**, Indian Chemical Society, Kolkata in March, 2015.

❖ **Dr. Mahesh Kumar Jat** was elected as Member of Executive Committee of Indian Water Resources Society

❖ **Dr. Emmanuel Pilli**, Assistant Professor, **CSE** was appointed as Chair of Workgroup 3.2 on Cloud Security of the Cloud Computing Innovation Council of India (CCICI), part of IEEE Cloud Computing Community. This appointment also gives him the privilege to be part of the Executive Committee of CCICI.

Cloud Computing Innovation Council for India (CCICI) is a not for profit society providing an collaboration platform for technical experts across industry [IBM, HP, Cisco, EMC2, VMware, Intel, AMD, TCS, CDAC], academia and professional bodies to volunteer and serve as a think-tank for driving technological innovations across the cloud computing ecosystem in India.

Dr. Pilli was also nominated as member of two workgroups - Cloud Security and Cloud Forensics, of the National Institute of Standards and Technology (NIST), Gaithersburg, Maryland, USA.

Other Activities

To raise the bar of skill and knowledge in Industrial Automation tools especially in Mechatronics Technologies, Festo® Expotainer i.e Exhibition on Wheel was invited to MNIT campus on 11th May 2015. The exhibition vehicle was docked to the Advanced Manufacturing & Mechatronics Lab of the Mechanical Engineering Department. Around three hundred students visited the exhibition in 20 odd batches each consisting of 15 students, and benefitted from this exhibition. Faculty coordinator of the lab and Assistant Professor in Mechanical Engineering Department was thankful to the Festo® authorities for conceding his request to visit the campus all the way from Bangalore. It is expected that with this exhibition more and more students will be motivated to be Automation Engineers and Entrepreneurs, as the skill gap exists in this domain.



❖ **MNIT Jaipur and University of Illinois Partnership Provides International Service-Learning Opportunities for LINC Students**

An innovative educational partnership developed this spring semester between Malaviya National Institute of Technology Jaipur and the University of Illinois at Urbana-Champaign. Professor Rohit Goyal and Mr. Nikhil Sharma were integral to developing the partnership, which emerged as a result of faculty networking after a FICCI (Federation of Indian Chambers of Commerce and Industry) delegation visit to the University of Illinois. Learning in Community (LINC) is an interdisciplinary, inquiry-guided service-learning program in the College of Engineering at the University of Illinois. In LINC courses, undergraduate students with diverse majors provide meaningful community service through the conception, development, and implementation of projects in collaboration with community partners, non-profits, and non-governmental organizations. A range of both international and local community-based projects are tackled each semester, which address critical needs of importance to a variety of partners. Projects focus on topics such as social and environmental issues, engineering and technical problems, education, community health, sustainability, and international development.

With a strong network of NGO partners and active research projects focused on addressing public health issues in village communities across Rajasthan, MNIT Jaipur was strategically positioned as a valuable institutional partner in support of service-learning projects related to the problems of unsafe drinking water and improper sanitation practices prevalent in rural communities. Throughout the spring semester, LINC students had the opportunity to learn from and collaborate with MNIT Jaipur faculty, in particular Dr.

A. B. Gupta and Dr. Urmila Brighu, as well as with NGO staff, including Dr. V.K. Chhabra of Healthcare Sansthan, Mr. Pankaj Mathur of UNICEF, and Mr. Saurabh Agnihotri of FINISH Society (Financial Inclusion Improves Sanitation and Health). Students learned about the dangers of drinking water with high fluoride concentrations, the detrimental health effects of fluorosis, and innovative research on defluoridation technologies. They also learned about problems associated with open defecation and challenges experienced with community adoption and usage of toilets as well as intervention strategies to support the Swachh Bharat Mission to improve the quality of life in rural areas.



Illinois and MNIT students pose for a photo after conducting fieldwork in Sikar District.



At Bhumachota School, Prof. A.B. Gupta explains the effects of fluoridation and how to detect it

In addition to developing the MNIT Jaipur partnership with the University of Illinois, Professor Rohit Goyal played a key role in organizing a successful 12-day educational exchange and service-learning field study trip for a team of eight students and two staff members in the LINC program to travel to India during Spring Break. The students participated in a variety of educational, fieldwork, and cultural activities. While on campus, students learned more about MNIT Jaipur from a presentation by Dr. Awadhesh Bhardwaj and open discussion with Professor I.K. Bhat, Director, MNIT Jaipur. They also toured the Department of

Chemical Engineering research facilities and learned about current research projects related to water quality and defluoridation from graduate students working with Dr. Suja George and Dr. Madhu Agarwal.

Prof. A.B. Gupta and MNIT graduate students Dhiraj Mehta, Priyanka Sharma, Poonam Mondal, and Parimala Prasad and postdoctoral researcher Prakash Kumar Singh joined the LINC team to provide assistance with Hindi translation, cultural understanding, and data collection for the first project related to fluorosis and defluoridation. Before traveling to Sikar District, the team spent time with Dr. V. K. Chhabra and his staff at Healthcare Sansthan to learn more about the effects of fluorosis on communities, how to test fluoride levels in water, the mechanical regeneration method for activated alumina used in defluoridation plants, and challenges experienced in their work to educate communities.



MNIT faculty and NGO partners provide feedback at the team's final presentation.

As an outcome of the project, the LINC team has accomplished the following: developed educational materials for Healthcare Sansthan, which can be used to train community members more effectively; developed posters about Fluorosis to address misconceptions noticed during field visits; prepared a detailed cost comparison of different activated alumina regeneration methods; created case studies of sanitation projects, which integrate theory and field data to provide insight into community and behavior change processes; generated new trigger activities and posters, which can be used by FINISH Society in community interventions to enhance sanitation; and composed human interest stories about fluorosis and sanitation issues and the impact of the NGO partners' work in the local communities. Overall, the joint collaboration between MNIT Jaipur and the LINC program at Illinois has been very successful in achieving student learning outcomes and providing valuable contributions to NGO partners working in rural village communities in Rajasthan.

Placement / Training

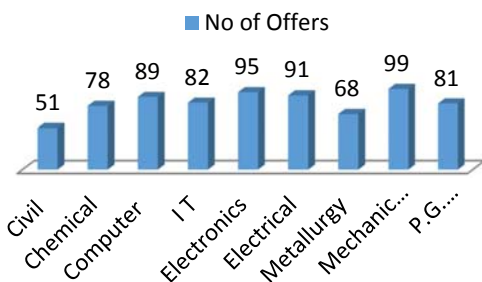
Placement Statistics till 15h May 2015

Branch Wise Placement Stats	No of Offers
Civil	51
Chemical	78
Computer	89
I T	82
Electronics	95
Electrical	91
Metallurgy	68
Mechanical	99
P.G. Courses	81
Total	734
Package	
Minimum package	2.4
Maximum	21
Average	5.02



*Total Number of Companies visited are 154 till date.

Placement Statistics till 15th May 2015



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