



### VISION

To build a vibrant multicultural learning environment founded on value based academic principles, wherein all involved shall contribute effectively, efficiently and responsibly to the nation and global community.

### INSIDE THIS ISSUE

1. From Director's Desk
2. Conferences
3. Short Term Courses
4. Community Development Programmes
5. Seminars, Training Workshops
6. Research Publications
  - (a) Journals
  - (b) Conferences
7. Courses, Seminars, Training Programmes Attended
8. Expert Lectures Delivered
9. Foreign Visits, Awards and Recognitions
10. NIT Hamirpur Ranking
11. Foundation Stones
12. Heartiest Congratulations
13. Overwhelming Response
14. Forthcoming Programmes
15. From Chief Editor's Desk

Silver Jubilee Year  
NIT Hamirpur  
2010-2011

### From Director's Desk

National Institute of Technology, Hamirpur is one of the thirty three institutes of National Importance in India and is known for many accomplishments. It provides an education with future, teaching how to inquire, converse and collaborate, which are lifelong skills. The objectives of providing high quality teaching and learning of international standard, combined with creation, dissemination and application of knowledge are being met by creating world-class infrastructure; global talent pool of faculty and students. Collaboration with industries and institutions of excellence is also an integral part.

Our major theme is to build a world-class international institute to educate the leaders of the next generation. NIT Hamirpur is playing a vital role in developing and disseminating scientific and technological knowledge. The institute is actively engaged in basic and applied research while developing collaborative links with other academic and research institutions in India and abroad-all in close collaboration with industry. Research is undertaken in the right earnest to strengthen the knowledge base, relevant to engineering practices. Consultancy services are provided to different organizations spread across the country.

In pursuit of our mission, we are committed to provide dynamic learning environment to ensure successful achievement of students' goals by administering sound policies, curricula, instruction and support services. We are committed to promoting individual success around the core values of accountability, respect, responsibility and critical thinking. As a result, our students not only excel in the class, they push beyond their comfort zones studying overseas, doing research; thus receiving national and international fame.

The institute takes pride in its high quality education, which is presently reflected in its ongoing admission process. The programmes offered by various departments have witnessed a huge number of applicants from across the country. The new entrants are assured of peaceful, raging free academic environment.

This issue of institute "Newsletter" highlights a spectrum of academic, continuing educational activities and infrastructural developments, the institution undertook during the last couple of months. We look forward to work with you, whether industry, alumni or prospective employers. Please make use of the many resources and features of our website "www.nith.ac.in" and return frequently to see the new program offerings, capabilities and updates which are our continuous endeavors.

Jai Hind

**Prof. R. L. Sharma**  
Director  
NIT, Hamirpur HP



**Prof. R. L. Sharma, Director**

### Contact Details

### NATIONAL INSTITUTE OF TECHNOLOGY Hamirpur 177 005, Himachal Pradesh, India.

Phone: 01972-254010, Fax: 01972-223834, Email: registrar@nitham.ac.in  
Web Site: <http://www.nith.ac.in>



## Conferences



Prof. R. L. Sharma, Director NIT Hamirpur and Dr. Teemu Santonen from Finland exchanging MOU agreement



ICACC-2011 Inauguration by Dr. L. K. Awasthi Head CC, Dr. K. Dutta HOD CSE, along with Director, Experts & Guests

**International Conference on Advances in Computing and Communication, ICACC-11** was organized during 8-10 April, 2011 by CSED and Computer Centre of NIT Hamirpur. The conference is a part of Silver Jubilee Year Celebration of NIT Hamirpur. It was inaugurated by Chief Guest Prof. Timothy A Gonsalves, (Director IIT Mandi HP). He asked the researcher to explore various areas of inter-disciplinary research so that the benefit of the ICT technology can reach the masses. A number of tutorials were conducted. Prof. (Mrs.) Saroj Kaushik (IIT Delhi) delivered expert lecture on "Inferences in Fuzzy Logic", Prof. Y. D. S. Arya (Director Invertis University Bareilly) delivered lecture on "Converting of High Level Language Code to Machine level Language Code" Santonen from Finland delivered lecture on "Virtual internship collaboration based on ICT Technology (massidea.org)". During the conference, proceeding was released by Chief Guest along with Prof. R.C Joshi (IIT Roorkee), Prof. I.K. Bhat (MNNIT Allahabad), Prof. Saroj Kaushik (IIT Delhi), Dr. Teemu Santonen from Finland, Prof. R. L. Sharma (Director NIT Hamirpur), Prof. A. S. Singha (Registrar NIT Hamirpur), Prof. L. K. Awasthi (HOD CC NIT Hamirpur), Prof. (Mrs.) Kamlesh Dutta (HOD, CSE NIT Hamirpur). 370 papers had been received for ICACC'11 from five countries, 147 papers were selected based on expert reviews, and were presented in the conference. The conference was attended by more than 150 delegates from India and abroad. Prof. (Mrs.) Saroj Kaushik, from IIT Delhi delivered a keynote lecture on "Soft Computing Paradigm. Prof. R. C. Joshi, from IIT Roorkee delivered a keynote lecture on "Issues in Cloud Computing". General Chair: Prof. L. K. Awasthi, Organising Chair: Dr.(Mrs.) Kamlesh Dutta and Dr. Pamita Awasthi.

**MoU with Laura University, Finland** was signed by Prof. R. L. Sharma, Director NIT Hamirpur. Dr. Teemu Santonen represented Laura University and gave an insight about the Massidea.org project. The objective of this MOU is to facilitate international academic exchange and student mobility, to develop academic and scientific relationships, and support collaborative research activities. Faculty and students of CSE Department are already working on collaborative project Massidea.org.

## Short Term Courses

### Professional Training Programme

June 14, 2011



Prof. V. K. Sharda, Dean P&D and Dr. Kamlesh Dutta, HOD CSE addressing the participants

Department of Computer Science & Engineering, Computer Centre and Continuing Education Cell organized a series of **Professional Training Programmes** for technical staff. **Networking and PC troubleshooting** course was organized during 14-16 June, 2011 for the technical staff who had less familiarity with the computer technology. Second course on "**Linux System Administration**" was organized during 21-23 June for the technical staff having MCA, MSc or Diploma in Computer Science & Engineering. Prof. R. L. Sharma, Director and Prof V. K. Sharda Dean P&D, encouraged the participants for making the best use of their time and improving their technical skills. Dr. Rajeevan Chandel, Coordinator Continuing Education Centre appreciated the efforts of the Coordinators and for choosing very apposite issues for training the staff of various departments of NIT Hamirpur. Course Coordinators were Dr. Kamlesh Dutta and Er. Siddhartha Chauhan.

## Community Development Programmes



Sacred lamp lighting by SP Hamirpur, Director, Registrar, Dr. Rajeevan Chandel & Dr. K. Dutta, NIT Hamirpur, on Women's Empowerment Workshop

**A Workshop on Women's Empowerment & Awareness** about Rights of Women was organized on 8<sup>th</sup> March 2011 by Women Cell of NIT Hamirpur. It commemorated the International Women's Day and MHRD guidelines regarding Awareness of Sexual Harassment & Rights of Women. Prof. RL Sharma Director NIT Hamirpur & the Chief Guest, highlighted the importance of education to all girls. He also brought home the contribution of all great women in India. Sh. Kuldeep Sharma, SP Hamirpur HP was the Guest of Honour and the Resource Person for the Workshop. He talked about Women's Rights and Legislations, gave various practical instances for making all aware about the various rules and IPC sections. He profoundly held women in high esteem. Dr. (Mrs.) Rajeevan Chandel, Asso. Prof. E&CED & Convener of Women Cell NIT Hamirpur delivered an Expert talk on Personality Development as a technique for self improvement and empowerment. Dr. Mani, MHO talked on female feticide. Dr. Veena recited a poem. Dr. Rajeevan Chandel and Dr. Kamlesh Dutta coordinated the workshop. Over 350 participant ladies and girls of NIT Hamirpur benefited from the event. Registrar Prof. A.S. Singha, Deans Prof. YR Sood, Prof Rakesh Sehgal, XEN Er. Suresh Walia, Dr. Rajesh Sharma graced the occasion.



## Seminars, Training Workshops



Lamp Lighting during "Public Key Infrastructure" by Mr. M. Misbahuddin, Prof. YR Sood, Prof. Rakesh Sehgal & others

**Two Days Workshop on Public Key Infrastructure** was organized by Computer Science & Engineering department in collaboration with PKI Outreach Programme (POP) Project CDAC, Bangalore during 12-13 February, 2011. The programme was attended by 35 participants. The Two-day workshop focused on the technical aspects of PKI with more emphasis on practical & hands-on sessions for better understanding of the usage of digital signatures, certificates and the overall PKI infrastructure. The training covered basics of Cryptography, PKI Algorithms, PKI Components, Digital Signature, PKI Standards & Policies, Risks of PKI, Developing PKI-based applications, PKI Scenario in India and in other foreign countries. The practical & hands-on sessions covered Installation of Certificates, Creation of Enterprise wide Root CA, Digital signing for web security, e-mail security, Java Libraries for PKI. This workshop was well attended by the experts from Computer Science and also the Deans and Heads of various departments for better understanding of e-governance projects. The workshop was coordinated by Dr. (Mrs.) Kamlesh Dutta, Prof. Lalit Awasthi and Mr. Ashwani Sharma from NIT Hamirpur. From CDAC, Bangalore Mr. Mohammed Misbahuddin, Chief Investigator & Coordinator PKI Outreach Programme (POP) Project, Mr. Balaji Rajendran and Mr. Harpreet Singh coordinated the activity.

IBM LOTUS DOMINO Workshop at CSE&D, NIT Hamirpur during 17-20 Feb 2011



Prof. R. L. Sharma Director, NIT Hamirpur addressing the participants

**A 4-day Workshop on IBM Lotus Domino Software**, (a collaboration software widely used at enterprise level) was organized by Computer Science & Engineering Department from 17<sup>th</sup> to 20<sup>th</sup> February, 2011. The workshop aimed at familiarizing the students with Lotus Domino administration and how it is used at enterprise level. The workshop was conducted by Mr. Sourav and Mr. Kunal from IBM WebTech Labs 93 students and four faculty members participated in the workshop. Prof. R.L. Sharma, Director NIT Hamirpur appreciated the effort of CSE Department in providing Industry oriented courses to the students. He further emphasized the need to work not only as an application developer but asked the students to have innovative ideas which could be put into use for the benefit of society. Dr. L.K. Awasthi provided an insight of activities of IBM Centre of Excellence at NIT Hamirpur. Dr. (Mrs) Kamlesh Dutta, HOD, CSE Department highlighted the importance of "industry-needs-oriented" development programmes for the students. Coordinators: Prof. L.K. Awasthi and Dr. (Mrs.) Kamlesh Dutta.

## Publications: International/ National Journals

- A. Gupta and Lalit K. Awasthi, "Peers-for-Peers (P4P): An Efficient and Reliable Fault-Tolerance Strategy for Cycle-Stealing P2P Applications," Journal of Communication Networks and Distributed Systems, Vol. 6, No. 2, pp. 202–228, 2011.
- Ashwani Kumar, Narottam Chand and Vinod Kapoor, "A novel source/Drain-to-Gate non-overlap MOSFET to reduce Gate leakage current in nano regime," Journal of Engineering and Applied Sciences, Vol.7, pp 62-68, 2011.
- Babu Ram, Narottam Chand, Prateek Gupta and Siddhartha Chauhan, "A New Approach Layered Architecture Based Clustering for Prolong Life of Wireless Sensor Network," Journal of Computer Applications, Vol.15, No.1, pp. 53–55, 2011.
- Dharmendra, "Recent developments and techniques available for removal of arsenic," Journal of Geotechnics and Environment, Vol. 3, No. 1, pp. 49-56, 2011.
- Dharmendra, R.C.Vaishy and S.C.Prasad "The Sorption of Arsenic (Iii) by oxides of coated sand," The Environment & We, Journal of Science & Technology," (EWIJST), Vol. 2, No. 6, pp. 85-93, 2011.
- Dhrub Solanki, Rajeevan Chandel, T. Alam and A. Nishad, "Design and Analysis of LC-VCO using MEMS Spiral Inductor," Journal of Micro and Nano Systems, Int. Sc. Press India, Vol. 2, No. 1, pp. 47-51, 2011.
- Gopal Chand Gautam and T. P. Sharma, "A Comparative Study of Time Synchronization Protocols in Wireless Sensor Networks," I Journal of Applied Engineering, Vol.1, No.3, pp. 691-705, 2011.
- Hardeep Thakur, P. Thakur, Ravi Kumar, N. B. Brookes, K K Sharma, A. P. Singh, Yogesh Kumar, S. Gautam and K. H. Chae, "Applied Irradiation induced ferromagnetism at room temperature in TiO<sub>2</sub> thin films: x-ray magnetic circular dichroism characterizations," Physics Letters, Vol. 98, 2011.
- Hemant Kumar Vinayak, Ashok Kumar, Pankaj Agarwal and S.K. Thakkar, "Damage behavior study of an RC frame model under quasi-static testing," Indian Concrete Journal, Vol. 85, No. 8, pp. 41-47, 2011.
- Kamlesh Dutta and Siddhant Sarthak, "Architectural Space Planning using Evolutionary Computing Approaches: A review," Artificial Intelligence Review, An Science and Engg. Journal, DOI 10.1007/s10462-011-9217-y Springer, pp. 1-11, 2011.
- Kamlesh Dutta, Saroj Kaushik and Nupur Prakash, "Machine Learning Approach for the Classification of Demonstrative Pronouns for Indirect Anaphora in Hindi News Items," Prague Bulletin of Mathematical Linguistics, Versita, Vol. 95, pp. 33-50, April 2011.

- Kiran Maraiya, Kamal Kant and Nitin Gupta, "Architectural Based Data Aggregation Techniques in Wireless Sensor Network: A Comparative Study," Journal on Computer Science and Engineering (IJCSSE), ISSN: 0975-3397, Vol. 3, No. 3, pp.1131-1138, March 2011.
- M.Y. Al-Aghbari, R.K. Dutta and Mohamedzeini E.A. Yahia, "Effect of diesel and gasoline on the properties of sands – A comparative study," Journal of Geotechnical Engineering, Vol. 5, No. 1, pp. 61-68, 2011.
- Maneesh Kumar Singh, Vinod Kapoor, Ashish Goswami and Neeraj Sharma, "Performance analysis of Optical Wireless Communication Link in the Presence of Different atmospheric turbulences," Journal of Wireless Communication & Networks (IJWCN), Karunya University, pp.79-82, 2011.
- Manoj Kumar and Gagnesh Kumar, "Optimization Techniques for Source Follower Based Track-and-Hold Circuit for High Speed Wireless Communication," Journal of VLSI design & Communication Systems, AIRCC, Vol. 2, No. 1, pp 45-59, 2011.
- Mukesh Kumar Jha and T.P. Sharma, "Secure Data Aggregation in Wireless Sensor Network: A survey," in Journal of Engineering and Science and Technology (IJEST), Vol. 3, No. 3, pp. 2013-2019, March 2011.
- Naveen Chauhan, Lalit Kumar Awasthi, Narottam Chand, Vivek Katiyar and Ankit Chugh, "A Distributed Weighted Cluster Based Routing Protocol for MANETs," Journal of Wireless Sensor Network, Vol. 3, No. 2, pp. 54-60, February 2011.
- Pankaj Kumar and Kamlesh Dutta, "Relationship between crosscutting concerns and defects," ACM SIGSOFT Software Engineering Notes, Vol. 36, No. 2, pp. 1-7, March 2011.
- Philemon Daniel and Rajeevan Chandel, "A Novel Output Vector Monitoring Online Concurrent BIST Architecture for VLSI Circuits," Journal on Electronics Engineering, Vol.1, No.2, pp. 23-30, 2011.
- Prashant Kumar Tiwari, Naveen Kumar Sharma and Yog Raj Sood, "Novel Concept of Quantization of Congestion in Deregulated Power Sector," Electrical India, Vol. 51, No. 5, pp. 98-104, May 2011.
- Prashant Kumar Tiwari, Naveen Kumar Sharma and Yog Raj Sood, "Power Quality Issues in Deregulated Environment Sector" Electrical India, Vol. 05, No.3, March 2011.
- Priyanka Dadhich, Kamlesh Dutta and M.C.Govil, "Trust Enhanced Authorization for Distributed Systems," Journal of Scientific & Engineering Research Vol. 2, No. 3, pp. 1-7, ISSN 2229-5518, March 2011.
- Randhir Singh and Yog Raj Sood, "Current status and analysis of renewable promotional policies in Indian restructured power sector-A review," Renewable and Sustainable Energy Reviews, Elsevier publishers, Vol. 15, No. 1, ISSN: 1364-0321, Impact Factor 4.842, pp. 657-664, Jan 2011.
- R.K. Dutta and V.K. Sarda, "A Comparative study of the CBR behaviour of waste plastic strip-reinforced stone dust overlying soft clay," Journal of Geotechnics and Environment, Vol. 2, No. 2, pp. 155-170, 2011.
- Srikanth P. and Ashwani Kumar Chandel, "Inverse S-Transform Based Decision Tree for Power System Faults Identification," Indonesian Journal of Electrical Engineering, Telkomnika, Vol. 9, No. 1, pp. 99-106, April 2011.
- S. E. Yasodian, R.K. Dutta, N.P. Nisha and S. Salila, "Quantification of discharge through the composite liner due to geomembrane defect," Journal of Geotechnics and Environment, Vol. 3, No. 1, pp. 17- 34, 2011.
- S.P. Guleria and R.K. Dutta, "Tensile strength of fly ash- lime- gypsum composite mixed with treated tyre chips," Journal of Geotechnics and Environment, Vol. 2, No. 2, pp. 71-87, 2011.
- S.P. Guleria and R.K. Dutta, "Tension and compression behavior of fly ash-lime-gypsum composite mixed with treated tyre chips," ISRN Civil Engineering, Article ID 310742, doi:10.5402/2011/310742, 2011.
- Shafqat Mughal and Yog Raj Sood, "Restructuring Developments and Issues in Indian Power System," Journal of Recent Trends in Engineering & Technology, Vol.5, No. 2, March 2011.
- Shiv Shakti Srivastava and Nitin Gupta, "A Novel Approach to Security using Extended Playfair Cipher," Journal of Computer Applications, 0975 – 8887, Vol. 20, No.6, April 2011.
- Srikanth Baride and Kamlesh Dutta, "A Cloud based Software Testing Paradigm for Mobile Applications," Acm sigsoft Software Engineering Notes, Vol. 36, No. 3, pp.1-4, May 2011.
- V.K. Bansal and M. Pal, "Construction projects scheduling using GIS tools," Journal of Construction Management, Vol. 11, No. 1, pp.1-18, 2011.
- V.K. Bansal, "Application of Geographic Information Systems in construction safety planning," Journal of Project Management, Elsevier Science, Vol. 29, No. 1, pp.66-77, 2011.
- V.K. Bansal, "Use of GIS and topology in the identification and resolution of space conflicts," Journal of Computing in Civil Engineering, ASCE, Vol. 25, No. 2, pp.159-171, 2011.
- Vijay K Thakur and A.S.Singha, "Rapid Synthesis, Characterisation and Physiochemical Analysis of Biopolymer Based Graft Co-polymers," Journal of Polymer Analysis and Characterisation, Vol. 16, No. 2, pp. 153-164, 2011.
- Vijay K. Thakur, A.S. Singha, I.K Mehta, R.K Pudukotai, Nagarajarao and Yang Liping, "Studies on Analysis and Characterisation of Phenolic Composites Fabricated from Lignocellulosic fibers," Polymer and Polymer Composites, Vol. 19, No. 6, 2011.
- Vinod Kumar, Ajay K. Sharma and R.A. Agarwala, "Analytical Investigations on Cross-talk in Fiber Raman Amplification for WDM Systems," Journal for Light and Electron Optics, Elsevier Science, Germany, Optik 121, pp. 50-53, 2011.





## International/ National Conferences

- A.S. Singha and Raj K Rana, "Biomass Based Thermoplastic Composites," 11<sup>th</sup> conference on Frontiers of Polymers and Advanced Materials, Organised by University of Pretoria, South Africa, May 22-27, 2011.
- Ashwani Kumar Chandel and P. Srikanth, "Identification of Power Quality Problems using inverse property of S-Transformer," IEEE PES Power System Conference and Exposition Phoenix, Arizona, USA, March 20-23, 2011.
- Atul K Nishad, Rajeevan Chandel and D. Solanki, "Design and Analysis of MEMS Based Bolometer," IT-BHU, National Workshop on Recent Advances in Micro-Electro-Mechanical Systems RAMEMS, pp. 129-132, March 7-9, 2011.
- Atul K. Nishad, R. Chandel, S. Jadav and D. Solanki, "Gate Diffusion Input: A Power Efficient Design Technique for VLSI Circuits," IEEE Conference on Advances in Computing & Communication, ICACC'11, CSED NIT Hamirpur, pp. 432-435, April 8-10, 2011.
- Avtar Singh and Kamlesh Dutta, "Cloud Computing through E-Governance," Conference on Advances in Computing and Communication, April 8-10, 2011.
- B.B. Dubey, Naveen Chauhan, Lalit Awasthi and Narottam Chand, "NILDD: Nearest Intersection Location Dependent Dissemination of Traffic Information of VANETs," ACM Conference on Communication Computing and Security, pp. 96-99, 2011.
- Babu Ram, Naveen Chauhan, Narottam Chand and Lalit K. Awasthi, "A New Mechanism to Query Latency Minimization for Cache Invalidation in Vehicular Ad Hoc Network (VANETs)," IEEE Conference on Electronics Computer Technology, pp. 250-253, 2011.
- Dhrub Solanki, R. Chandel, T. Alam and A.K. Nishad, "Design Issues in CMOS Oscillators," IEEE Conference on Advances in Computing & Communication, ICACC, CSED NIT Hamirpur, pp. 347-350, April 8-10, 2011.
- Dhrub Solanki, Rajeevan Chandel, T. Alam and A.K. Nishad, "Design and Analysis of LC-VCO using MEMS Spiral Inductor," Conference on Communication and Signal processing ICCOS, Karunya University, Coimbatore, pp. 1035-1038, March 17-18, 2011.
- Dhrub Solanki, Rajeevan Chandel, T. Alam and A.K. Nishad, "Design of LC-VCO for Low Power Narrowband Electronic Applications," 2nd Conference on Wireless Communications, Vehicular Technology, Information Theory and Aerospace & Electronic Systems (WVITAE-2011), Le Royal Meridien, Chennai, India, March 2011.
- Dinesh Kumar, Gagnesh Kumar, Rohit Dhiman and Rajeevan Chandel, "Folded Cascade OTA For High Frequency Applications," National Conference on Recent Advances in Electronics & Communication Technology RAECT-2011, GNDEC Ludhiana, March 4-5, 2011.
- Diwakar Singh, Gargi Khanna and M. Girish Kumar and Rajeevan Chandel, "Analysis of Interconnect Delay Considering Crosstalk Noise in VLSI Circuits," IEEE Conference on Advances in Computing & Communication, ICACC'11, CSED NIT Hamirpur, pp. 429-431, April 8-10, 2011.
- Diwakar Singh, Gargi Khanna and Rajeevan Chandel, "Impact of Width Variation of Global Inductive VLSI Interconnect Line," Conference on Electronics, Information and Communication Systems Engineering ICEICE, E&CED, B. M. Engineering College, Faculty of Engineering, JN V University, Jodhpur-342011, Rajasthan, India, pp. 175-178, March 28-30, 2011.
- Gopal Chand Gautam, T.P. Sharma and Kamlesh Dutta, "Security Evaluation and Transition for Cryptographic Algorithms," Conference on Advances in Computing and Communication, April 8-10, 2011.
- K. A. Naik, P. Srikanth and Ashwani Kumar Chandel, "A Novel Governor Control for Hydro Power Plant with Two Surge Tanks," MIPSCON 2011, Rajam, Andhra Pradesh, 7-9 April, 2011.
- Naveen Chauhan, Lalit Awasthi and Narottam Chand, "Cooperative Caching Strategy in Mobile Ad Hoc Networks," Conference on Recent Trends in Information, Telecommunication and Computing, Springer CCIS, pp. 628-630, March 2011.
- Naveen Chauhan, Lalit Awasthi, Narottam Chand and Ankit Chugh, "A Distributed Weighted Cluster Based Routing Protocol for MANETs," Conference on Recent Trends in Information, Telecommunication and Computing, Springer CCIS, pp. 147-151, March 2011.
- Naveen Chauhan, Lalit Awasthi, Narottam Chand, R.C. Joshi and Manoj Misra, "A Cooperative Caching Strategy in Mobile Ad Hoc Networks Based on Clusters," ACM International Conference on Communication Computing and Security, pp. 17-20, 2011.
- Naveen Chauhan, Lalit K. Awasthi and Narottam Chand, "Data Caching with Intelligent Prefetching in Mobile Ad Hoc Networks," Conference on Communication Systems & Network Technologies, 2011.
- P. Srikanth, K. A. Naik and Ashwani Kumar Chandel, "Identification and Analysis of Power System Transients Using Harley S-Transform," MIPSCON 2011, Rajam, Andhra Pradesh, 7-9 April, 2011.
- Pankaj Kumar and Kamlesh Dutta, "A Review of Tools and Techniques to identify Crosscutting Concerns," Conference on Advances in Computing and Communication, April 8-10, 2011.
- Philemon Daniel and Rajeevan Chandel, "Concurrent online test architecture for multiple controller blocks with minimum fault latency," 9th IEEE ISPA DATICS Workshop, Busan, South Korea, May 26-28, 2011.
- Prashant Kumar Tiwari and Yog Raj Sood, "Optimal Location of FACTS Devices for enhancement in the performance of Deregulated Power Sector: A Survey," IEEE Power and Energy Society General Meeting, Detroit, Michigan, USA, July 24-28, 2011.
- Priyanka Dadhich, Kamlesh Dutta and M.C. Govil, "Trust Secure Models for Mobile Agents - A Perspective Study," Conference on Advances in Computing and Communication, April 8-10, 2011.
- Purnima Sharma and Rajeevan Chandel, "Comparative Analysis of NTTS of TSPC Logic," National Conference on Recent Advances in Electronics & Communication Technology RAECT-2011, GNDEC Ludhiana, pp.124-126, March 4-5, 2011.
- Purnima Sharma, Rajeevan Chandel, Dhrub Solanki and S. Sarkar, "Analysis of Noise Tolerant Techniques in TSPC Logic," IEEE Conference on Advances in Computing & Communication, ICACC'11, CSED NIT Hamirpur, pp. 318-321, 8-10 April 2011.
- Rajeev Singh and T.P. Sharma, "Denial of Service in Mobile Networks: Attacks and Solutions," Conference on Advances in Computing and Communication (ICACC), pp. 90-95, April 8-10, 2011.
- Rakhi Puri, Gargi Khanna and Rajeevan Chandel, "Simulative Analysis of Adder Cells for Performance Enhancement," IEEE Conference on Advances in Computing & Communication, ICACC, CSED NIT Hamirpur, pp. 336-340, April 8-10, 2011.
- Rohit Dhiman, Rajeevan Chandel and Tafseer Alam, "Resistive Power Analysis Of CMOS Driven Global RC Interconnect," IEEE Conference on Advances in Computing & Communication, ICACC, CSED NIT Hamirpur, pp. 389-392, April 8-10, 2011.
- Roopesh Kumar Thota and T.P. Sharma, "Cost Effective Cooperative Caching in Wireless Sensor Networks," National Conference on Emerging Trends in Information Technology and Communication Systems, Chennai, March 18-19, 2011.

- Roopesh Kumar and T.P. Sharma, "Energy Efficient Routing Using Query and Event Flooding in Wireless Sensor Networks," Conference on Advances in Computing and Communication (ICACC), NIT Hamirpur, pp. 197-200, April 8-10, 2011.
- S.S. Chauhan, S.C. Yadav and Rajeevan Chandel, "Synthesis of CMOS OP-AMP," National Conference on Recent Advances in Electronics & Communication Technology RAECT, GNDEC Ludhiana, March 4-5, 2011.
- Shiv Shakti Srivastava and Nitin Gupta "Security Aspects of the Extended Playfair Cipher," IEEE 1st Conference on Computer Modeling and Simulation (CSNT), Jammu, pp. 615-617, June 2011.
- Tafseer Alam, Rajeevan Chandel and Rohit Dhiman, "Mixed Carbon Nanotube Bundle: Capacitance Analysis and Comparison with Copper Interconnect," Conference on Emerging Trends in Electrical and Computer Technology ICETECT, Kanya Kumari, March 23-24, 2011.
- Tafseer Alam, Rohit Dhiman, Rajeevan Chandel and Dhrub Solanki, "Inductance Analysis of Mixed Carbon Nanotube Bundle Interconnects," IEEE Conference on Advances in Computing & Communication, ICACC, CSIED NIT Hamirpur, pp. 354-357, April 8-10, 2011.
- Tumpa Roy and Kamlesh Dutta, "Mutual Authentication for Secure Access of Smart Cards Using Elliptic Curve Cryptography," Symposium on Devices Mems Intelligent Systems and Communication ISDMISC, SMIT Sikkim, India, April 12-14, 2011.
- Tumpa Roy and Kamlesh Dutta, "Security for Mobile Communication Using Symmetric and Asymmetric Key Cryptography," Symposium on Devices Mems Intelligent Systems and Communication ISDMISC, SMIT Sikkim, India, April 12-14, 2011.
- Tumpa Roy and Kamlesh Dutta, "The Mutual Authentication Protocol based on ECC for wireless communication," Conference on Advances in Computing and Communication, April 8 - 10, 2011.
- Vachik S. Dave and Kamlesh Dutta, "Application of Feed-Forward Neural Network in estimation of Software Effort," Symposium on Devices Mems Intelligent Systems and Communication ISDMISC, SMIT Sikkim, India, April 12-14, 2011.
- Vivek Katiyar, Narottam Chand and Surender Soni, "Efficient Multilevel Clustering Algorithm for Large-scale Heterogeneous Wireless Sensor Networks," ACM Conference on Communication Computing and Security ICCCS, pp. 1-6, 2011.
- Vivek Katiyar, Narottam Chand and Surender Soni, "Improving Lifetime of Large-scale Wireless Sensor Networks through Heterogeneity," IEEE Conference on Emerging Trends in Electrical and Computer Technology, pp. 1032-1036, March 2011.
- Vivek Katiyar, Narottam Chand, Gopal Gautam and Anil Kumar, "Improvement in LEACH Protocol for Large-scale Wireless Sensor Networks," IEEE Conference on Emerging Trends in Electrical and Computer Technology, pp. 1070-1074, March 2011.

## Courses, Seminars, Workshops and Training Programmes Attended

- \* Prof. L.K. Awasthi attended 1 day campus connect national workshop organized by Infosys Ltd, April 2011.
- \* Dr. (Mrs.) Kamlesh Dutta, Mr. Anil Kumar and Mr. Ashwani Sharma attended workshop on National Knowledge Network (NKN) on March 25, 2011 organised by NIC, New Delhi.
- \* Er. Atul student MTech VLSI attended IEP on Low Power Low Noise OP-Amp Design at IIT Delhi under SMDP-II, March 14-19, 2011.
- \* Er. Harshit & Er. Dharendra students M.Tech VLSI attended IEP on Biomedical Applications in VLSI at IIT Kharagpur, under SMDP-II, March 7-12, 2011.
- \* Er. Manoranjan Rai attended OFDM based 4G Cellular Standards: LTE and wimax at Department of Electrical Engineering, IIT Kanpur Organized by Department of Electrical Engineering, IIT Kanpur & BSNL-IITK Telecom Center of Excellence on May 9-11, 2011.
- \* Er. Surender Kumar, LA E&CED and Er. Ravi Goel M.Tech VLSI Student attended MEMS Design Training Programme at CEERI Pilani, June 20-30, 2011.
- \* Mr. Nitin Gupta attended a summer school on Parallel and Distributed Computing (SSPDC-2011) organized by Indo-US Collaboration for Engineering Education (IUCEE) at JUIT Waknaghat, Solan (H.P.), 23-27 May 2011.
- \* Prof. L.K. Awasthi attended 1 day national Oracle Convocation, Chandigarh organized by Oracle Corporation India Pvt. Ltd, May 2011.

## Expert Lectures Delivered

- Prof Chandra Shakher, Professor, IIT Delhi delivered an expert lecture on "Magnetoelectric Current Sensor to measure high current on High Voltage Lines" in Electronics & Communication Engineering Department, May 2, 2011.
- Dr. Teemu Santonen, from Laurea University of Applied Sciences, Vanha mannitie, Finland visited to National Institute of Technology, Hamirpur, regarding Massidea.org project, March 8-10, 2011 and delivered a series of lectures on the project.
- Er. Mohammed Misbahuddin, Senior Staff Scientist, Computer Networks & Internet Engineering Division, C-DAC, Bangalore delivered a video conferencing lecture on "Secure & Usable Authentication: Do today's websites have it?"
- Mr. Nikolaos Mavridis, Director, Interactive Robots and Media Laboratory UAEU delivered an expert lecture on "Human Robotics and Virtual World" in Computer Science & Engineering Department NITH, March 4, 2011.
- Prof. L.K. Awasthi delivered an expert lecture on "Design of multi-core architecture" at DAV IT, Jalandhar, June 15, 2011.
- Dr. Vinod Kapoor, Professor, E&CED, NIT Hamirpur delivered an expert lecture on "Optical Fiber Communication and Networks" at Guru Nanak Dev Engg College, Ludhiana, Punjab, 26th Feb, 2011.
- Dr. Rajeevan Chandel delivered an Invited talk on "Design Issues in VLSI" in National Conference RAECT, at GNDEC, Ludhiana, Punjab, and March 5, 2011.
- Prof. Y.R. Sood delivered Key note on "Power Sector Moving towards Deregulation" in International Conference on Deregulated Environment and Energy Markets, Chitkara University, Chandigarh, Patiala, July 22-23, 2011.



## Foreign Visits, Awards & Recognitions

**Dr. A. S. Singha** visited South Africa and presented paper in 11<sup>th</sup> International Conference, May 22-27, 2011.

**Dr. Ashwani Kumar Chandel** visited Phoenix, Arizona, USA and presented paper in IEEE PES Conference & Exposition, March 20-23, 2011.

**Dr. Narottam Chand** chaired a Technical Session during International Conference on Software Engineering, Parallel and Distributed Systems Cambridge University, UK, 2011.

**Prof. L.K. Awasthi** appointed as a Member for evaluation of TEQIP project proposal at NPIU Delhi, 7 – 10 Jun 2011 and evaluation of project proposal, Travel grant application & short term applications at AICTE, New Delhi, 17-19 May 2010.

**Prof. L.K. Awasthi** appointed as a Member of national level committee for creating IT related infrastructure at CUHP, Dharmashala.

**Prof. L.K. Awasthi** appointed as an Expert member for NBA for Engineering Institutions during May 2011 and an Expert Member for consultancy evaluation committee for complete automation of Assam University, Silchar.

**Prof. L.K. Awasthi** appointed as an Expert member for Question setter of UPSC, New Delhi to create questions bank and PhD Thesis evaluator for KIIT, Bhubaneswar and HPU, Shimla and Rajiv Gandhi Proudyogiki Viswavidyalaya, Bhopal and appointed Reviewer for IEEE Transactions on Computers and IEEE communication letters.

**Prof. L.K. Awasthi** is an Expert Member for consultancy of complete automation for TANDA Medical College, HP and is a Life Membership, CSI and Fellow IE (India), Kolkata.

**Prof. Y. R. Sood** is Senior member of the IEEE, appointed as Member Editorial Board for International Journal on Electronic and Electrical Engg. Scientific Engg. Research Corp., Santa Clara 95051, CA, USA.

**Prof. Y. R. Sood** is Member of Advisory Panel & Chaired a Technical session of International Conference on “Deregulated Environment & Energy Markets” July 22-23, 2011.

**Prof. Y. R. Sood** Reviewer for International Journal of Engineering, Science and Technology, International Journal of Electrical Power & Energy Systems, Elsevier pub., IEEE Transaction on Power Delivery.

**Dr. (Mrs.) Rajeevan Chandel** has been Session Chair and Member of Advisory Committee National Conference Recent Advances in Electronics & Communication Technology RAECT-2011, GNDEC Ludhiana, March 4-6, 2011.

**Dr. (Mrs.) Rajeevan Chandel** is Reviewer of the International Journal MAEJO for 2010-11.

**Dr. T.P. Sharma** appointed as a Paper reviewer for International Conference on Advances in Computing & Communication ICACC-2011, 8-10 April 2011, NIT Hamirpur.

**Dr. T.P. Sharma** appointed PhD thesis evaluator/examiner for Deakin University, Victoria, Australia.

**Dr. T.P. Sharma**, Conference Steering Chair, Program Committee member, International Conference on Advances in Computing & Communication ICACC, NIT Hamirpur, April 8-10, 2011.

**Mr. Ashok Kumar** presented a paper in International Conference International Conference in Murray Edward College, University of Cambridge, UK, 2011.

**Mr. Surender Kumar Soni** presented a paper in International Conference in Murray Edward College, University of Cambridge, UK, 2011.

**Vivek Katiyar**, Narottam Chand and Surender Soni presented paper “Improving Lifetime of Large-scale Wireless Sensor Networks through Heterogeneity” IEEE International Conference on Emerging Trends in Electrical and Computer Technology, India, pp. 1032-1036, March 2011, won the Best Paper Award.

**Dr. (Mrs.) Kamlesh Dutta** and Dr. T.P. Sharma, Member, Committee for Infrastructure Development for H.P. Technical University.

**Er. Philemon Daniel** visited Busan, South Korea to present his paper in 9th IEEE ISPA DATICS Workshop, May 26- 28, 2011.

## NIT Hamirpur Ranking

Top 50 Engineering colleges June 27, 2011 by “OUTLOOK MDRA” Survey

19	PSG College of Technology	P	Coimbatore	119.9	118.2	119.0	133.4	111.0	601.5
20	JNTUH College of Engineering	P	Hyderabad	119.8	126.2	111.1	128.7	109.3	595.1
21	Manipal Institute of Technology	P	Manipal	128.1	123.5	111.3	127.5	97.1	587.5
22	NIT	G	Hamirpur	148.5	111.7	84.5	122.8	116.6	584.1
23	PEC Univ of Tech, Punjab University	G	Chandigarh	142.7	126.1	73.0	122.3	109.3	573.4
24	College of Engineering	G	Pune	117.3	124.8	107.1	119.2	104.6	573.0

*Discontent is the first necessity of progress – Thomas A. Edison*



## Foundation Stones



Foundation Stone of Applied Sciences Block by Hon'ble CM Govt. of Himachal Pradesh



Memoranda of Understanding signed with Mahindra Engineering College



Inauguration of Indian Coffee House by Prof. R L Sharma, Director along with Er. Suresh Walia, XEn & officials of NIT Hamirpur

## Heartiest Congratulations



**Veerabhadram Vislavath**  
(1994-98, EE)  
Asst. Div. Engineer in APCPDCL, Hyderabad has qualified Civil Services, 2010



**Kumar Vijay Mishra**  
(1999-2003, ECE)  
Developing Ground Validation Radars for NASA Global Precipitation Measurement Program as Research Scholar at Colorado State University, USA, 2011



**Maneesh Chauhan**  
(2004-08, CSE)  
Honoured by BEL Ghazibad with excellent R&D Project Award for outstanding contribution to the development of Multi-Sensor Tracking Software, 2011.

## Overwhelming Response for M.Tech. Admissions

NIT Hamirpur received over 4000 applications for its 12 M.Tech. Programmes with a total intake of about 240 students. The greatest rush for M.Tech programs has been in Electronics & Communication Engg. Department in which 903 applications were received for its two M.Tech programmes viz. VLSI Design Automation & Techniques and Communication Systems & Networks. The overwhelming response for M. Tech. applications reflects the popularity of high quality post graduate programs of NITH.

## Forthcoming Programmes

- \* Workshop on Fedora Project by CSE Department in collaboration with Red HAT during July 30-31, 2011.
- \* Alumni Meet at NIT Hamirpur, August 13-14, 2011.
- \* Training on Functional Testing organized by CSE Department in collaboration with IBM during August 19-22, 2011.

## From Chief Editor's Desk

On the behalf of the Editorial team, I extend sincere gratitude towards Hon'ble Director, Deans, Head of Departments, Coordinators, Faculty, Staffs and Students who have been associated with the current Institute Newsletter for all their efforts in bringing out this 2nd Issue of Volume 6, 2011 of NIT Hamirpur Newsletter. Suggestions for improving the quality of Newsletter are more than welcome. Very short articles of recent importance are also invited.

With all the best wishes and regards to our readers.



**Dr. (Mrs.) Rajeevan Chandel**  
Asso. Prof. E&CE Dept. cum  
Coordinator SMDP-II & MDC  
Editor-in-Chief Institute Newsletter  
NIT Hamirpur 177005 HP, India  
Email: [rchandle@nitham.ac.in](mailto:rchandle@nitham.ac.in),  
[rc.nith@gmail.com](mailto:rc.nith@gmail.com)

## Editorial Board

### Patron

*Prof. R. L. Sharma, Director*

### Editor-in-Chief

*Dr. (Mrs.) Rajeevan Chandel*

### Editorial Members

Dr. Ashwani Kumar Chandel  
Dr. (Mrs.) Kamlesh Dutta  
Er. Anil Dhiman  
Sh. Deep Kanga  
Er. Dharendra Kumar (M.Tech VLSI Design)  
Er. Yash Agrawal (M.Tech VLSI Design)  
Er. Ashish Jindal (B.Tech. IV ECE)