खम्मा घणी...!!

भारतीय प्रौद्योगिकी संस्थान जोधपुर

॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

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Khamma Ghani...!!

Indian Institute of Technology Jodhpur

नया वर्ष, नयी उम्मीदें!

2016 का नया वर्ष अपने साथ कुछ नयी उम्मीदें लेकर आया है। संस्थान में तीन छात्रों की पीएच.डी. शिक्षा पूरी हई। संकाय सदस्यों द्वारा प्रस्तावित 5 नये प्रायोजित अनुसंधान परियोजनाओं को स्वीकृति मिली। राकेश शर्मा के शोध का उल्लेख अंतर्राष्ट्रीय स्तर पर मान्यता प्राप्त विद्वत् पत्रिका "केमकैटकेम" के मई 2016 अंक के मुख पृष्ठ पर प्रकाशित हुआ। इस छमाही में छात्रों ने सामाजिक–सांस्कृतिक एवं तकनीकी उत्सव IGNUS 2016 मनाया, छात्रवृत्ति प्राप्त की तथा 90 अवरस्नातक तथा 6 स्नातक छात्रों ने नामी कम्पनियों में नौकरी भी प्राप्त की। संस्थान के स्थाई परिसर में 67वाँ गणतंत्र दिवस मनाया गया, वृक्षारोपण हुआ। हमारे परिवार में 6 नये संकाय सदस्य तथा 2 नये कर्मचारी जुड़े। संस्थान में बाह्य गतिविधियों का सिलसिला जारी रहा। संस्थान के महिला प्रकोष्ठ ने 8 मार्च 2016 को अंतर्राष्ट्रीय महिला दिवस मनाया, तथा "लैंगिक बुद्धिमत्ता" पर दो–दिवसीय कार्यशाला का भी आयोजन किया।

भारतीय प्रौद्योगिकी संस्थान जोधपुर ने अपने स्थाई परिसर में स्थानांतरित करने की तैयारियाँ आरंभ कर दी हैं। यह सफ़र हम इस वर्ष के अक्टूबर माह में तय करेंगे। आशा करते हैं कि अपने घर जाने की खुशियाँ अपने साथ निरंतर प्रगति की सौग़ात लेकर आयेंगी।

क्षेमा प्रकाश (संपादक)

ACADEMICS

Ph.D. Theses

The following students have successfully defended their Ph.D. theses:

S. No.	Name of the Student	Title of Thesis	Supervisor	Department	Date of Defense
1.	Deepak Kumar Chhangani	Role of MGRN1 E3 Ubiquitin Ligase in Protein Quality Control Mechanism and Polyglutamine Diseases	Amit Kumar Mishra	Biology	7 January 2016
2.	Abhay Samant	Reconfigurable Architecture for Cross Layer Design Optimization and its Applications	Sandeep Kumar Yadav Venkataramana Badarla	Electrical Engineering	25 April 2016
3.	Suresh Singh	Mitigation of Negative Impedance Instabilities in DC/DC Converters and DC Microgrids using Nonlinear Control	Deepakkumar M. Fulwani	Electrical Engineering	3 May 2016

R&D

New Research Projects

Prodyut Ranjan Chakraborty, Assistant Professor, Department of Mechanical Engineering, has been sanctioned the sponsored research project "Thermal Design of PCM Cool and Warm Vest" by Defense Research & Development Organisation (DRDO), Jodhpur. The duration of the project is 2 years (2015 -17).

Arun Kumar Singh, Assistant Professor, Department of Electrical Engineering, has been sanctioned the sponsored research project "Computationally efficient fixed complexity sphere decodes for multiuser MIMO communications" by Science and Engineering Research Board, DST, Government of India. The duration of the project is 3 years (2016-19).

Venkata Ramana Badarla, Assistant Professor, Department of Computer Science & Engineering, has been sanctioned the sponsored research project "Energy Efficient Technologies for Smart Buildings" by the Indo-US Science and Technology Forum (IUSSTF), DST, Government of India. The duration of the project is 3 years (2016-19).

Mahesh Kumar, Assistant Professor, Department of Electrical Engineering, has been sanctioned the sponsored research project "Development of Tunable RF Filter Based on Ferroelectric Thin Film by Sputtering" by the Indian National Science Academy. The duration of the project is 3 years (2016-19).

Ambesh Dixit, Assistant Professor, Department of Physics, has been sanctioned the sponsored research project "Probing Magnetic Structures and Spin Flop transition in bulk and nanostructured $FeVo_4$ Multiferroic System" by Department of Science and Technology, Government of India. The duration of the project is 3 years (2016-19).

Patents Filed

Department of Chemistry

1. *"Real-time Calibration free water quality sensor (Device and System)"*
   Inventors: Rakesh K. Sharma, IIT Jodhpur and P. V. Hareesh, Panasonic Corporation, Japan
   Patent (Provisional) Reference Number: 1468/CHE/2015
   Date: 23 March 2015
2. *"Metal Nanoparticles Intercalated Clay for Solvent Free Hydrogenation of Squalene into Squalane"*
   Inventors: Rakesh K. Sharma and Vineet K. Soni
   Patent Application Number: 201611009866
   Date: 21 March 2016

Research Publications

Department of Biology

Journal Articles

1. **Vijay, A.**, **Vaishnava, M.**, and **Chhabra, M.** (2016). Microbial fuel cell assisted nitrate nitrogen removal using cow manure and soil. *Environmental Science and Pollution Research*, Vol 23(8), 1–13. ISSN: 1614-7499. http://doi.org/10.1007/s11356-015-5934-0
2. **Sharma, N.**, and **Jha, S.** (2015). NLR-regulated pathways in cancer: opportunities and obstacles for therapeutic interventions. *Cellular and Molecular Life Sciences*, Vol 73, 1741-64. ISSN: 1420-9071. http://doi.org/10.1007/s00018-015-2123-8
3. Hoop, C. L., Lin, H.-K., **Kar, K.,** Magyarfalvi, G., Lamley, J. M., Boatz, J. C., Mandala, A., Lewandowski, J. R. , Wetzela, R. and Wel, P. C. A. van der. (2016). Huntingtin exon 1 fibrils feature an interdigitated β-hairpin–based polyglutamine core. *Proceedings of the National Academy of Sciences*, Vol 113(6), 1546–1551. ISSN: 1091-6490. http://doi.org/10.1073/pnas.1521933113
4. **Anand, B. G.**, Dubey, K., Shekhawat, D. S., and **Kar, K.** (2016). Capsaicin-coated silver nanoparticles inhibit amyloid fibril formation of serum albumin. *Biochemistry*. Vol 55(24), 3345–3348. ISSN: 0006-2960. http://doi.org/10.1021/acs.biochem.6b00418
5. **Upadhyay, A.**, **Amanullah, A.**, **Chhangani, D.**, **Joshi, V.**, **Mishra, R.**, and **Mishra, A.** (2015). Ibuprofen Induces Mitochondrial-Mediated Apoptosis Through Proteasomal Dysfunction. *Molecular Neurobiology*, 1–14. ISSN 1559-1182. http://doi.org/10.1007/s12035-015-9603-6
6. Harinipriya, S., Kalra, A., and **Mishra, A. K.** (2016). Physiochemical Characterization of tubulin from Arachis hypogaea. Synthetic Metals, Vol 220, 86–94. ISSN: 0379-6779. http://doi.org/10.1016/j.synthmet.2016.04.021

Department of Chemistry

Journal Articles

1. **Gupta, R.,** Rao, K. D. M., Kiruthika, S., and Kulkarni, G. U. (2016). Visibly Transparent Heaters. *ACS Applied Materials & Interfaces*, Vol *8*(20), 12559–12575. ISSN: 1944-8244. http://doi.org/10.1021/acsami.5b11026
2. Adhikari, S., and **Kumar, A.** (2016). Upper bound on singlet fraction of two-qubit mixed entangled states. *Quantum Information Processing*, Vol 15(7), 2797–2803. ISSN: 1573-1332. http://doi.org/10.1007/s11128-016-1295-y
3. **Choudhary, G.**, **Sharma, R. K.,** and **Plappally, A. K.** (2015). Local material composite sintered systems for fluoride removal. *Desalination and Water Treatment*, Vol 55(10), 2626–2637. ISSN: 1944-3986. http://doi.org/10.1080/19443994.2014.957936
4. **Shejale, K. P.**, **Laishram, D.**, and **Sharma, R. K.** (2016). High-performance dye-sensitized solar cell using dimensionally controlled titania synthesized at sub-zero temperatures. *RSC Advances*, Vol 6(28), 23459–23466. ISSN: 2046-2069. http://doi.org/10.1039/C6RA00227G
5. **Shejale, K. P.**, **Laishram, D.**, Roy, M. S., **Kumar, M.**, and **Sharma, R. K.** (2016). On the study of phase and dimensionally controlled titania nanostructures synthesis at sub-zero temperatures. *Materials & Design*, Vol 92, 535–540. ISSN 0264-1275. http://doi.org/10.1016/j.matdes.2015.12.047
6. **Ram, P.**, Gören, A., Ferdov, S., Silva, M. M., Singhal, R., Costa, C. M., **Sharma, R. K.** and Lanceros-Méndez, S. (2016). Improved performance of rare earth doped LiMn2O4 cathodes for lithium-ion battery applications. *New Journal of Chemistry*, Vol 40(7), 6244-6252. ISSN: 1369-9261. http://doi.org/10.1039/C6NJ00198J
7. **Soni, V. K.**, and **Sharma, R. K.** (2016). Palladium-Nanoparticles-Intercalated Montmorillonite Clay: A Green Catalyst for the Solvent-Free Chemo selective Hydrogenation of Squalene. *ChemCatChem*, Vol 8(10), 1763–1768. ISSN: 1867-3880. http://doi.org/10.1002/cctc.201600210

Conference Papers

1. **Chaudhary, G.**, Sharma, P. R., **Soni, V. K.**, **Pandey, S.** and **Sharma, R. K.** (2015). New Ceramic Nanocomposite Filters for Fluoride Removal using Acacia Waste. In 2nd National Conference On Emerging Trends Of Research in Applied Sciences, Experimental & Computational Techniques: Vol. 4 (12). Jodhpur Institute of Engineering and Technology, Jodhpur (pp. 11-16). ISSN: 2278-0181. http://www.ijert.org/browse/conference-proceedings
2. Sharma, P. and **Sharma R. K.** (2016). Asymmetric Hydrogenation of Ethyl 2-Oxo-2-Phenylacetate with Chiral Platinum Loaded on Carbon Fiber. In 2nd National Conference On Emerging Trends Of Research in Applied Sciences, Experimental & Computational Techniques: Vol. 4 (12). Jodhpur Institute of Engineering and Technology, Jodhpur (pp. 6-10). ISSN: 2278-0181. http://www.ijert.org/browse/conference-proceedings
3. Sharma, P. R., **Soni V. K.**, **Chaudhary G.**, **Plappally A. K.**, **Pandey S.**, and **Sharma R. K.** (2016). Calix[4] amidocrown Molecular Sensors for Fluoride and Arsenate Detection, In 2nd National Conference On Emerging Trends Of Research in Applied Sciences, Experimental & Computational Techniques: Vol. 4 (12). Jodhpur Institute of Engineering and Technology, Jodhpur (pp. 1-5). ISSN: 2278-0181. http://www.ijert.org/browse/conference-proceedings

Department of Computer Science & Engineering

Journal Articles

1. **Rathore, H.**, **Badarla, V.,** and **George, K. J.** (2015). Sociopsychological trust model for Wireless Sensor Networks. *Journal of Network and Computer Applications*, Vol 62, 75-87. ISSN: 1084-8045. http://doi.org/10.1016/j.jnca.2015.09.009
2. **Ansari, Z. A.**, and **Harit, G.** (2016). Nearest neighbour classification of Indian sign language gestures using kinect camera. *Sadhana*, Vol 41(2), 161–182. ISSN: 0973-7677. http://doi.org/10.1007/s12046-015-0405-3

Conference Papers

1. **Sharma, K.**, and **Badarla, V.** (2015). Topology aware flow scheduling for data center network. In *2015 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)* (pp. 1–6). ISBN: 978-1-5090-0293-1. http://doi.org/10.1109/ANTS.2015.7413632

Department of Electrical Engineering

Journal Articles

1. Bajaj, M., Nayak, K., **Gundapaneni, S.,** and Rao, V. R. (2016). Effect of Metal Gate Granularity Induced Random Fluctuations on Si Gate-All-Around Nanowire MOSFET 6-T SRAM Cell Stability. *IEEE Transactions on Nanotechnology*, Vol 15(2), 243-247. ISSN: 1536-125X. http://doi.org/10.1109/TNANO.2016.2515638
2. Konakov, A. A., Filatov, D. O., Korolev, D. S., Belov, A. I., Mikhaylov, A. N., Tetelbaum, D. I., and **Kumar, M.** (2016). Electronic states in spherical GaN nanocrystals embedded in various dielectric matrices: The k·p-calculations. *AIP Advances*, Vol 6(1), 015007, DOI: http://dx.doi.org/10.1063/1.4939938
3. Shetty, A., **Kumar, M.,** Roul, B., Vinoy, K. J., and Krupanidhi, S. B. (2016). InN Quantum Dot Based Infra-Red Photodetectors, *Journal of Nanoscience and Nanotechnology*, Vol 16(1), 709-714. DOI: http://dx.doi.org/10.1166/jnn.2016.10679
4. **Singh, M.**, **Mahia, R. N.**, and **Fulwani, D. M.** (2016). Towards characterization of driver nodes in complex network with actuator saturation. *Neurocomputing*, Vol 201, 104-111. ISSN: 0925-2312. http://doi.org/10.1016/j.neucom.2016.03.011
5. **Singh, S.**, **Rathore, N.**, and **Fulwani, D. M.** (2016). Mitigation of Negative Impedance Instabilities in a DC/DC Buck-Boost Converter with Composite Load. *Journal of Power Electronics*, Vol 16(3), 1046-1055, ISSN: 2093 – 4718. http://www.jpe.or.kr/archives/view_published.asp?beseq=237
6. **Mahela, O. P.**, and **Shaik, A. G.** (2016). Comprehensive overview of grid interfaced wind energy generation systems. *Renewable and Sustainable Energy Reviews*, Vol 57, 260–281. ISSN: 1364-0321. http://doi.org/10.1016/j.rser.2015.12.048
7. **Mahela, O. P.**, and **Shaik, A. G.** (2016). Topological aspects of power quality improvement techniques: A comprehensive overview. *Renewable and Sustainable Energy Reviews*, Vol 58, 1129–1142. ISSN: 1364-0321. http://doi.org/10.1016/j.rser.2015.12.251
8. **Mahela, O. P.**, and **Shaik, A. G.** (2016). Power quality improvement in distribution network using DSTATCOM with battery energy storage system. *International Journal of Electrical Power* and *Energy Systems*, Vol 83, 229–240. ISSN: 0142-0615. http://doi.org/10.1016/j.ijepes.2016.04.011
9. Lu, H. f, Elia, P., and **Singh, A. K.** (2016). Performance-Complexity Analysis for MAC ML-Based Decoding With User Selection. *IEEE Transactions on Signal Processing*, Vol 64(7), 1867–1880. ISSN: 1053-587X. http://doi.org/10.1109/TSP.2015.2508788

10. Jain, P. K., **Tiwari, A. K.,** and Chourasia, V. S. (2016). Performance analysis of seismocardiography for heart sound signal recording in noisy scenarios. *Journal of Medical Engineering & Technology*, Vol 40(3), 106-118. ISSN: 0309-1902. http://doi.org/10.3109/03091902.2016.1139203
11. **Bharti, D.**, and **Tiwari, S. P.** (2016). Crystallinity and performance improvement in solution processed organic field-effect transistors due to structural dissimilarity of the additive solvent. *Synthetic Metals*, Vol 215, 1–6. ISSN: 0379-6779. http://doi.org/10.1016/j.synthmet.2016.01.013
12. **Bisoyi, S.**, Rödel, R., Zschieschang, U., Kang, M. J., Takimiya, K., Klauk, H., and **Tiwari, S. P.** (2016). A comprehensive study of charge trapping in organic field-effect devices with promising semiconductors and different contact metals by displacement current measurements. *Semiconductor Science and Technology*, Vol 31(2), 025011. ISSN: 0268-1242. http://doi.org/10.1088/0268-1242/31/2/025011
13. **Raghuwanshi, V.**, **Bharti, D.**, and **Tiwari, S. P.** (2016). Flexible organic field-effect transistors with TIPS-Pentacene crystals exhibiting high electrical stability upon bending. *Organic Electronics*, Vol 31, 177–182. ISSN: 1566-1199. http://doi.org/10.1016/j.orgel.2016.01.030
14. **Raghuwanshi, V.**, **Bharti, D.**, **Varun, I.**, **Mahato, A. K.**, and **Tiwari, S. P.** (2016). Performance enhancement in mechanically stable flexible organic-field effect transistors with TIPS-pentacene: polymer blend. *Organic Electronics*, Vol 34, 284–288. ISSN: 1566-1199. http://doi.org/10.1016/j.orgel.2016.04.039
15. Chopra, P., and **Yadav, S. K.** (2016). Fault detection and classification by unsupervised feature extraction and dimensionality reduction. *Complex & Intelligent Systems*, Vol 1(1), 25-33. ISSN: 2198-6053. http://doi.org/10.1007/s40747-015-0004-2
16. Jain, A., and **Yadav, S. K.** (2016). Design and Analysis of Compact 108 Element Multimode Antenna Array for Massive Mimo Base Station. *Progress in Electromagnetics Research C*, Vol 61, 179–184. ISSN: 1937-8718. http://doi.org/10.2528/PIERC15110502
17. **Tripathi, S.**, Mohan, A., and **Yadav, S.** (2016). A compact fractal UWB antenna with reconfigurable band notch functions. *Microwave and Optical Technology Letters*, Vol 58(3), 509–514. ISSN: 1098-2760. http://doi.org/10.1002/mop.29609

Conference Papers

1. **Mahia, R. N.**, **Singh, M.**, and **Fulwani, D.** (2015). Algorithms to select right driver nodes for multi-agent systems. In *Control Conference (ASCC), 2015 10th Asian* (pp. 1–6). Kota Kinabalu: IEEE. ISBN: 978-1-4799-7862-5. http://doi.org/10.1109/ASCC.2015.7244880
2. **Mahia, R. N.**, **Singh, M.**, and **Fulwani, D. M.** (2015). Characterization of driver nodes: Network of discrete-time agents. In *Control Conference (ECC), 2015 European* (pp. 622–627). ISBN: 978-3-9524269-3-7. http://doi.org/10.1109/ECC.2015.7330611
3. **Mahela, O. P.**, and **Shaik, A. G.** (2015). Detection of power quality events associated with grid integration of 100kW solar PV plant. In *2015 International Conference on Energy Economics and Environment (ICEEE)* (pp. 1–6). ISBN: 9781467374927. http://doi.org/10.1109/EnergyEconomics.2015.7235070
4. **Mahela, O. P.**, and **Shaik, A. G.** (2015). Power Quality Detection in Distribution System with Wind Energy Penetration Using Discrete Wavelet Transform. In *2015 Second International Conference on Advances in Computing and Communication Engineering (ICACCE)* (pp. 328–333). ISBN: 9781479917341. http://doi.org/10.1109/ICACCE.2015.52
5. Maheshwari, S., and **Tiwari, A. K.** (2015). Walking parameters estimation through channel state information preliminary results. In *2015 9th International Conference on Signal Processing and Communication Systems (ICSPCS)* (pp. 1–8). Cairns, Australia: IEEE. ISBN: 978-1-4673-8118-5. http://doi.org/10.1109/ICSPCS.2015.7391801

Department of Humanities & Social Sciences

Journal Articles

1. **Narayanan, V. H.** (2016). Revisiting the self: a sine qua non for understanding embodiment. *AI & SOCIETY*, Vol 31(1), 79–84. ISSN: 1435-5655. http://doi.org/10.1007/s00146-014-0574-3
2. **Narayanan, V. H.** (2016). Voice in the Head: The Road Ahead. *Journal of Indian Council of Philosophical Research*, Vol 33(2), 265–280, ISSN: 0970-7794. http://doi.org/10.1007/s40961-016-0057-7

Department of Mathematics

Journal Articles

1. **Sharma, P.** (2015). Induced Dynamics on the Hyperspaces. *arXiv:1512.06940[math.DS]*. Retrieved from http://arxiv.org/abs/1512.06940
2. **Sharma, P.,** and Kumar, D. (2016). Matrix Characterization of Multidimensional Sub shifts of Finite Type. *arXiv:1603.00754 [math.DS]*. Retrieved from https://arxiv.org/abs/1603.00754

3. **Sharma, P.,** and Raghav, M. (2015). Dynamics of Non autonomous Discrete Dynamical Systems. *arXiv:1512.08868 [math.DS]*. Retrieved from http://arxiv.org/abs/1512.08868

4. **Singh, V. P., Vijay, V., Ravindra, B.,** and Siddhartha, M. (2015). Impact of Trend and Seasonality in Forecasting of 5 MW PV Plant Generation using Single Exponential Smoothing Method. *International Journal of Computer Applications*, Vol *130*(1), 5–9. ISSN: 0975-8887. http://doi.org/10.5120/ijca2015906840

Conference Papers

1. **Bhati, A., Hiremath, K. R.,** and Dixit, V. (2015). Design and fabrication of wire based bandwidth enhanced metamaterial absorber. In *2015 International Conference on Microwave and Photonics (ICMAP)* (pp. 1–2). ISBN: 978-1-4673-6897-1. http://doi.org/10.1109/ICMAP.2015.7408766

2. **Bhati, A., Hiremath, K. R.,** and Dixit, V. (2015). Design of wire based single/dual/triple band polarization insensitive metamaterial absorber. In *2015 International Conference on Microwave and Photonics (ICMAP)* (pp. 1–2). ISBN: 978-1-4673-6897-1. http://doi.org/10.1109/ICMAP.2015.7408767

Book Chapters

1. **Bhatnagar, G.** (2015). Multimodal medical image fusion based on SUSAN feature in framelet domain. In C. T. Davis (Ed.), *Image Fusion: Principles, Technology and Applications* (pp. 121–152). New York: Nova Science Publishers. ISBN: 978-1-63482-115-5.

2. Saha, A., **Bhatnagar, G.,** and Wu, Q. M. J. (2015). Saliency based Framework for Thermal and Visual Image Fusion (pp. 17-44). In C. T. Davis (Ed.), *Image Fusion: Principles, Technology and Applications* (pp. 17–44). New York: Nova Science Publishers. ISBN: 978-1-63482-115-5.

Department of Mechanical Engineering

Journal Articles

1. Singla, Y. K., **Chhibber, R.,** Avdesh, Goyal, S., and Sharma, V. (2016). Influence of single and dual particle reinforcements on the corrosion behavior of aluminum alloy based composites. *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials Design and Applications.* 1464420716638111. ISSN: 1464-4207. http://doi.org/10.1177/1464420716638111

2. Singla, Y. K., **Chhibber, R.,** and Dutta, B. K. (2016). Influence of Friction Welding Parameters on the Tensile Strength of Bimetallic Weld Joints. *MMU Journal of Management & Technology*, Vol *1*(1), 41–49. ISSN: 2455-4456. http://journal.mmambala.org/wp-content/uploads/2016/02/Vol-1-Issue-1-PP-41-49.pdf

3. Sharma, B., **Chhibber, R.,** and Mehta, R. (2016). Effect of surface treatment of nanoclay on the mechanical properties of epoxy/glass fiber/clay nanocomposites. *Composite Interfaces*, 23(7), 523-40. ISSN: 0927-6440. http://doi.org/10.1080/09276440.2016.1165522

4. Bhandari, D., **Chhibber, R.,** Arora, N., and Mehta, R. (2016). Investigation of TiO2–SiO2–CaO–CaF2 based electrode coatings on weld metal chemistry and mechanical behaviour of bimetallic welds. *Journal of Manufacturing Processes*, Vol *23*, 61–74. ISSN: 1526-6125. http://doi.org/10.1016/j.jmapro.2016.05.013

5. Saini, A., **Chhibber, R.,** and Chattopadhyay, A. (2016). Effect of combined fatigue and hygrothermal loading on structural properties of E-glass/polymers. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*. 0954406216644268. ISSN: 0954-4062. http://doi.org/10.1177/0954406216644268

6. **Desai, K. A.,** and Rao, P. V. M. (2015). Machining of curved geometries with constant engagement tool paths. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*. http://doi.org/10.1177/0954405415616787

7. **Harsha, C. S., Prasanth, C. S. R.,** and **Pratiher, B.** (2016). Effect of Squeeze Film Damping and AC Actuation Voltage on Pull-in Phenomenon of Electrostatically Actuated Microswitch. *Procedia Engineering*, Vol *144*, 891–899. ISSN: 1877-7058. http://doi.org/10.1016/j.proeng.2016.05.108

8. **Harsha, C. S., Prasanth, C. S.,** and **Pratiher, B.** (2016). Prediction of pull-in phenomena and structural stability analysis of an electrostatically actuated microswitch. *Acta Mechanica*, 1–18. ISSN: 1619-6937. http://doi.org/10.1007/s00707-016-1633-2

9. **Phadatare, H. P.,** and **Pratiher, B.** (2016). Nonlinear Frequencies and Unbalanced Response Analysis of High Speed Rotor-Bearing Systems. *Procedia Engineering*, Vol 144, 801–809. ISSN: 1877-7058. http://doi.org/10.1016/j.proeng.2016.05.089

Book Chapters

1. **Patidar, D.,** Pardeshi, R., **Chandra, L.,** and Shekhar, R. (2016). Solar Convective Furnace for Heat Treatment of Aluminium. In A. K. Saha, D. Das, R. Srivastava, P. K. Panigrahi, and K. Muralidhar (Eds.), *Fluid Mechanics and Fluid Power – Contemporary Research: Proceedings of the 5th International and 41st National Conference on FMFP 2014*. New Delhi: Springer India Pvt. Limited. ISBN: 9788132227410.

2. Singh, G., Saini, D., **Chandra, L.,** and Shekhar, R. (2016). Design of a Cyclone Separator for Collection of Dust from Volumetric Air Receiver. In A. K. Saha, D. Das, R. Srivastava, P. K. Panigrahi, and K. Muralidhar (Eds.), *Fluid Mechanics and Fluid Power – Contemporary Research: Proceedings of the 5th International and 41st National Conference on FMFP 2014*. New Delhi: Springer India Pvt. Limited. ISBN: 9788132227410.

Department of Physics

Journal Articles

1. **Alok, A. K., Banerjee, S.,** Kumar, D., and Uma Sankar, S. (2016). Flavor signatures of isosinglet vector-like down quark model. *Nuclear Physics B*, Vol *906*, 321–341. http://doi.org/10.1016/j.nuclphysb.2016.03.012
2. **Alok, A. K., Banerjee, S.,** and Uma Sankar, S. (2016). Quantum correlations in terms of neutrino oscillation probabilities. *Nuclear Physics B*, Vol *909*, 65–72. ISSN: 0550-3213. http://doi.org/10.1016/j.nuclphysb.2016.05.001
3. **Alok, A. K.,** Kumar, D., Kumbhakar, S., and Sankar, S. U. (2016). D* polarization as a probe to discriminate new physics in B --> D* tau nubar. *arXiv:1606.03164 [Hep-Ex, Physics:hep-Ph]*. http://arxiv.org/abs/1606.03164
4. **Banerjee, S., Alok, A. K.,** Omkar, S., and Srikanth, R. (2016). Characterization of Unruh Channel in the context of Open Quantum Systems. *arXiv:1603.05450 [hep-Th, Physics:quant-Ph]*. http://arxiv.org/abs/1603.05450
5. **Banerjee, S., Alok, A. K.,** and MacKenzie, R. (2016). Quantum correlations in B and K meson systems. *The European Physical Journal Plus*, Vol *131*(5), 1–8. ISSN: 2190-5444. http://doi.org/10.1140/epjp/i2016-16129-0
6. Bhattacharya, S., **Banerjee, S.,** and Pati, A. K. (2016). Effect of non-Markovianity on the dynamics of coherence, concurrence and Fisher information. *arXiv:1601.04742 [quant-Ph]*. http://arxiv.org/abs/1601.04742
7. **Dutta, S.**, Adhikari, B., and **Banerjee, S.** (2016). A graph theoretical approach to states and unitary operations. *Quantum Information Processing*, Vol 15(5), 2193-2212, ISSN: 1573-1332. http://doi.org/10.1007/s11128-016-1250-y
8. **Dutta, S.**, Adhikari, B., **Banerjee, S.,** and Srikanth, R. (2016). Bipartite separability and non-local quantum operations on graphs. *Physical Review A.* Vol 94, 012306 (2016), arXiv: 1601.07704
9. Omkar, S., **Banerjee, S.**, Srikanth, R., and **Alok, A. K.** (2016). The Unruh effect interpreted as a quantum noise channel. *Quantum Information and Computation,* Vol 16(9&10), 0757-0770, arXiv:1408.1477
10. Thapliyal, K., **Banerjee, S.,** and Pathak, A. (2016). Tomograms for open quantum systems: In(finite) dimensional optical and spin systems. *Annals of Physics*, Vol 366, 148–167.ISSN: 0003-4916. http://doi.org/10.1016/j.aop.2016.01.010
11. Goyal, R., Jha, R., Tiwari, B., **Dixit, A.**, and Awana, V. P. S. (2016). Influence of Ni doping on critical parameters of PdTe superconductor. *arXiv:1605.04647 [Cond-Mat]*. http://arxiv.org/abs/1605.04647
12. Saini, L., Janu, Y., Patra, M. K., Jani, R. K., Gupta, G. K., **Dixit, A.,** and Vadera, S. R. (2016). Dual Band Resonance in Tetragonal BaTiO3/NBR Composites for Microwave Absorption Applications. *Journal of the American Ceramic Society*, n/a-n/a. ISSN: 1551-2916. http://doi.org/10.1111/jace.14284
13. **Usmani, B.**, and **Dixit, A.** (2016). Spectrally selective response of ZrOx/ZrC–ZrN/Zr absorber–reflector tandem structures on stainless steel and copper substrates for high temperature solar thermal applications. *Solar Energy*, Vol *134*, 353–365. ISSN: 0038-092X. http://doi.org/10.1016/j.solener.2016.05.014
14. Vyas, G., Dagar, P., and **Sahu, S.** (2016). A complementary switching mechanism for organic memory devices to regulate the conductance of binary states. *Applied Physics Letters*, Vol *108*(23), 233301. ISSN: 1077-3118. http://doi.org/10.1063/1.4953197
15. **Sharma, V.**, Thapliyal, K., Pathak, A. and **Banerjee, S.** (2016). A comparative study of protocols for secure quantum communication under noisy environment: single-qubit-based protocols versus entangled-state-based protocols, *Quantum Information Processing*, 1-30, DOI 10.1007/s11128-0016-1396-7, arXiv:1603.00178
16. Omkar, S., Srikanth, R., **Banerjee, S.** and Shaji, A. (2016). The two-qubit amplitude damping channel: characterization using quantum stabilizer codes. *Annals of Physics,* Vol 373, 145-62. arXiv:1511.03368

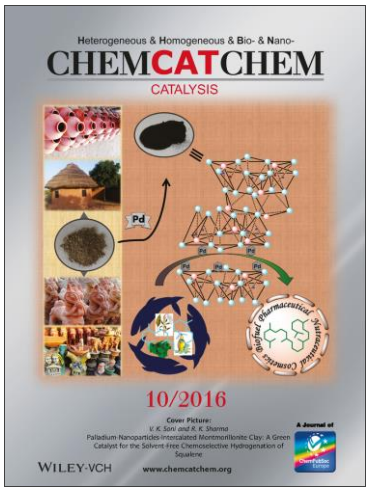
Conference Papers

1. Gupta, G. K., and **Dixit, A.** (2016). Room temperature electrical properties of solution derived p-type Cu2ZnSnS4 thin films. In *AIP Conference Proceedings* (Vol. 1728, p. 20678). AIP Publishing. ISBN: 978-0-7354-1375-7. http://doi.org/10.1063/1.4946729
2. Kumar, R., **Dixit, A.,** Chandra, L., Vyas, S., and Kumar, R. (2016). An experimental set-up for measuring thermodynamic response of low temperature phase change materials. In *2016 IEEE First International Conference on Control, Measurement and Instrumentation (CMI)* (pp. 107–109). ISBN: 9781479917693. http://doi.org/10.1109/CMI.2016.7413720
3. Kumar, R., Kumar, R., and **Dixit, A.** (2016). Thermal phase diagram of acetamide-benzoic acid and benzoic acid-phthalimide binary systems for solar thermal applications. In *AIP Conference Proceedings* (Vol. 1728, p. 20687). AIP Publishing. ISSN: 978-0-7354-1375-7. http://doi.org/10.1063/1.4946738

4. Kumar, R., Vyas, S., Kumar, R., and **Dixit, A.** (2016). Charging studies of heat packs using parabolic dish solar energy concentrator for extreme conditions. In V. Rajpaul & C. Richter (ed.), *21st SolarPACES International Conference (SolarPACES 2015)* (Vol. 1734, p. 50027). American Institute of Physics, Cape Town, South Africa. ISBN: 978-0-7354-1386-3. http://doi.org/10.1063/1.4949125

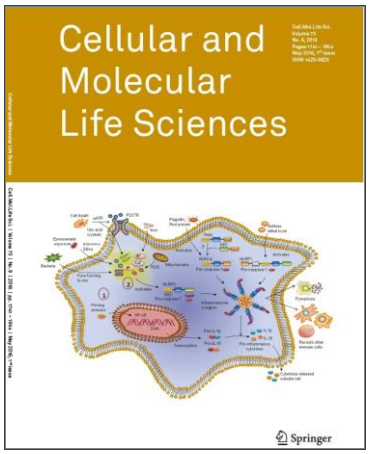
Awards & Recognitions

Rakesh K. Sharma's research placed on cover of ChemCatChem, May 2016



The cover shows the interface between the traditional and scientific applications of clay. In their communication, V. K. Soni and R. K. Sharma show the smart utilization of clay as a heterogeneous catalyst by nanometal intercalation for the selective hydrogenation of squalene into squalane under solvent free conditions. Squalane is an important ingredient in the cosmetic, nutraceutical, and pharmaceutical industries. Also, it has been used as a model compound for the hydrocracking of crude and microalgae oil. Thus, a series of green catalysts were prepared. The Pd-nanoparticles-intercalated clay with a dominating Pd(111) facet shows highest reactivity and selectivity. The catalyst is stable with very low Pd leaching, and is recyclable without losing any significant catalytic activity. More information can be found in the communication by V. K. Soni and R. K. Sharma on page 1763 in Volume 8, Issue 10, 2016 (DOI:10.1002/cctc.201600210).

Sushmita Jha's research placed on cover of Cellular and Molecular Life Sciences, May 2016



From the research paper "NLR-regulated pathways in cancer: opportunities and obstacles for therapeutic interventions" authored by Sushmita Jha, Assistant Professor, Department of Biology and Nidhi Sharma, Ph.D. Student, Department of Biology, which was published in the May 2016 issue of Cellular and Molecular Life Sciences, published by Springer Verlag, the figure depicting the "Summary of NLR inflammasome complex formation (Fig. 2)" has been placed as the cover art on the journal issue. NLRs (nucleotide-binding domain, leucine-rich repeat containing receptors) are pattern recognition receptors associated with immunity and inflammation in response to endogenous and exogenous pathogen and damage associated molecular patterns (PAMPs and DAMPs respectively). Dysregulated NLR function is associated with several diseases including cancers, metabolic diseases, autoimmune disorders and autoinflammatory syndromes. In the last decade, distinct cell and organ specific roles for NLRs have been identified however; their roles in cancer initiation, development and progression remain controversial. This review summarizes the emerging role of NLRs in cancer and their possible future as targets for cancer therapeutics. Full article can be read at doi:10.1007/s00018-015-2123-8.

IEEE Senior Member Grade Elevation to S. P. Tiwari

Shree Prakash Tiwari, Assistant Professor, Department of Electrical Engineering, has been elevated as *Senior Member* of the *Institute of Electrical and Electronics Engineers (IEEE)* in honour of his contributions to the profession.

Fellowships

Vidya Sarveswaran, Assistant Professor, Department of Humanities & Social Sciences, was awarded the *2016 Rachel Carson Fellowship*, by Rachel Carson Center for Environment and Society at the Ludwig Maxmillian University, Munich. The Research Fellowship is supported by the Deutches Museum and the Government of Germany.

STUDENTS

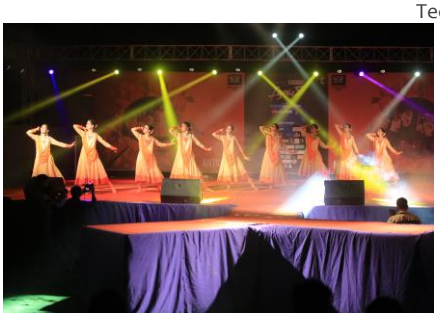
Activities & Achievements

IGNUS 2016

IGNUS, the techno-cultural student festival of IIT Jodhpur was celebrated during 25-28 February 2016. The festival was opened by famous Sitar player Shujaat Khan on 25 February 2016 with collaboration of SPICMacay. Robosoccer, Nrityansh, Clash of Bands, Robowar, Antarang, and IGNUS Open 2016 were the flagship events organised during this fest. Workshops on Android App Development, Bridge Designing, Augmented Reality, Vehicle Overhauling, Ethical Hacking, Embedded System, Entrepreneurship, Data Science & machine Learning, Serial & Wireless Communication, Placement Etiquettes, and Quadcopter also were organized during this event. Famous singer Krishnakumar Kunnath (popularly known as KK) performed during the pronite.

Also, an Alumni Meet was organized on 27 February 2016. Professor Prawal Sinha, Professor In-charge (Faculty), IIT Jodhpur, Anand Krishnan Plappally, Faculty In-charge, Alumni Relations Committee, IIT Jodhpur, and Damayanti Bhattacharya, CEO, IIT Bombay Alumni Association, addressed the Alumni of IIT Jodhpur.

Technical Events during IGNUS 2016



Cultural Events during IGNUS 2016

"Framed 2016" Art Exhibition

"Framed" is the annual Art Exhibition of IIT Jodhpur conducted by the Media, Arts and Design Society of the Students Gymkhana, IIT Jodhpur. The main motive of 'Framed' is to promote and showcase the artwork done by the students of IIT Jodhpur throughout the year. This year it was organised on 13 March 2016, in the Institute. It included the Photography, Photo Editing, Posters designed by Students, and Sketches & Paintings made by the Students. For the first time, this event was opened for people outside of the Institute. There were entries from all over the country. The exhibition recorded a considerable footfall from students of other colleges and local public of Jodhpur. Mr. Ravi Dhingra, Canon Photo Mentor, who has been a judge in many national level competitions, was Chief Guest for the event.

Spectators musing the art work

Felicitating Mr. Ravi Dhingra, Canon Photo Mentor

Other Events

Hindi Kavi Sammelan and Mashaira was organized by the Literature Club, Students Gymkhana, IIT Jodhpur on 16 April 2016 at the GPRA Residential Campus of IIT Jodhpur.

As an event of Varchas, the Sports Festival of IIT Jodhpur, the Students' Gymkhana in coordination with the Jodhpur Development Authority (JDA), organized a Mini Marathon in the city of Jodhpur on 17 April 2016. Theme of the marathon was "Run for Smart & Swach Jodhpur".

Scholarships to Students

Eight III Year B.Tech. students received academic scholarships for Summer 2016. These were:

1. Deutscher Akademischer Austauschdienst (German Academic Exchange Service) Working Internships in Science and Engineering DAAD WISE for 3 Months (from May to July, 2016)
    1. Abhishek Jaju (Electrical Engineering),
    2. Arnav Jindal (Computer Science & Engineering),
    3. Ashutosh Gupta (Electrical Engineering),
    4. Nithin Venkatesh (Computer Science),
    5. Hardik Jain (Mechanical Engineering),
    6. Prakhar Srivastava (Electrical Engineering), and
    7. Sangram Gaikwad (System Science).
2. S. N. Bose Scholars Program of DST and the Indo-US Science and Technology Forum (IUSSTF) for 3 Months (from May to July, 2016)
    1. V. Ashwin (Electrical Engineering)

Placement News

This year (2015-16) engineering, information & communication technology, and banking sector, government and public sector organizations visited IIT Jodhpur for placements. 90 Undergraduate and 6 Post Graduate students were placed with different companies. Major recruiters were C42 Engineering India Pvt. Ltd., Coal India Ltd., Cognizant Systems, D.E. Shaw India Software Pvt. Ltd., HCL Technologies, HPCL, JSW Energy Ltd., Larsen and Toubro Limited, Mahindra & Mahindra Ltd., Maxheap Technologies Pvt. Ltd., Morgan Stanley, National Engineering Industries, Samsung India Software Center (SISC), SteelWedge Technologies Pvt. Ltd., Tata Consultancy Services, and Voylla Fashions Pvt. Ltd..

Hearty Congratulations!!

Student Gymkhana

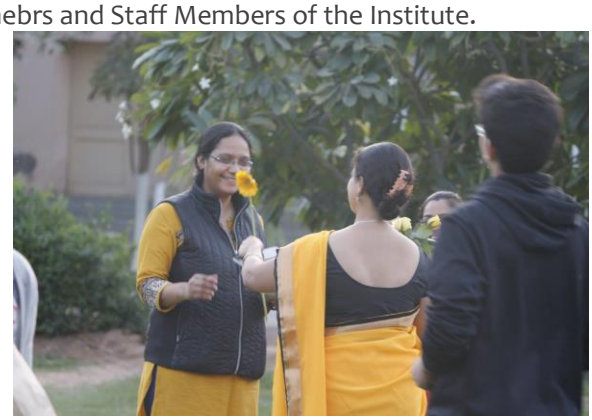
The Student Gymkhana of IIT Jodhpur, has five "Societies", and in turn each society has several clubs. These societies, under the leadership of their respective "Secretaries" fulfil the varied interests of the students and contribute to their holistic development. The term of these office bearers is for the academic year. With Pankaj Yadav as the General Secretary of the Student Gymkhana, the students were elected on 10 April 2016 to serve for the academic year 2016-17:

1.	Vijay Paliwal	Secretary, Academic, Research and Management (ARM) Society
2.	Yasharth Sahu	Secretary, Media, Arts and Design (MAD) Society
3.	Vivek	Secretary, Nurturing-Understanding Technology and Science (NUTS) Society
4.	Himanshu	Secretary, Sports, Adventures, Games and Explorations (SAGE) Society
5.	Mansi Mittal	Secretary, Writing, Awareness, Vocals, Entertainment, Social (WAVES) Society

IIT Jodhpur Counselling Service

Yellow Day Celebrations

"Yellow is the best colour to create enthusiasm for life and can awaken greater confidence and optimism". As we get engrossed in our mundane routines, we forget to take a break and enjoy the little things in our life. What is needed is a moment when we stop and appreciate all the awesome things around us. With this motive, the Student Counselling Service of IIT Jodhpur initiated a tradition this year to dedicate one day i.e., 12 February, to appreciate the good things in our life. On this day, all members of IIT Jodhpur Community were requested to wear clothes in the shades of yellow and join for a get together in the lawns of the Academic Campus. The team had put up yellow chart papers for the members to record their thoughts on "What makes you smile". The event was attended by the Students, Faculty Memebrs and Staff Members of the Institute.



Faculty Members greeting each other in yellow attires

Recording thoughts on "What makes you smile?"

World Health Day

World Health Day was celebrated in the Institute on 7 April 2016. Student Counselling Service of IIT Jodhpur organized Health Checkup of all Students, Faculty and Staff Members. Also, informal games were also organized to make the event interesting.

Faculty and Staff Members, and Students participating in informal games on World Health Day, 7 April 2016

NEW JOININGS

IIT Jodhpur welcomes the following new Faculty Members and Staff Members into the family:

Name	Designation	Department / Area of Work	Date of Joining
Navratan Mal Bhandari	Visiting Professor	Research & Development	1 January 2016
Prawal Sinha	Professor	Mathematics & Faculty	8 February 2016
Arita Banik	Assistant Professor	Department of Computer Science & Engineering	7 March 2016
Rajlaxmi Chouhan	Assistant Professor	Department of Electrical Engineering	23 May 2016
Sushmita Paul	Assistant Professor	Department of Biology	23 May 2016
Mayurakshi Chaudhury	Assistant Professor	Department of Humanities & Social Sciences	6 June 2016
Ashok Kumar Khanduri	Deputy Registrar	Academics, Infrastructure Management, Stores & Purchase , and Students	17 May 2016
Trilotama Singh	Junior Assistant	Administration	30 December 2015

PERMANENT CAMPUS

67th Republic Day Celebration

Flag Hoisting in Permanent Campus

The 67th Republic Day of the nation was celebrated by the members of IIT Jodhpur Community, on 26 January 2016 on the Permanent Campus in Karwad Village. The Director hoisted the National Flag, and the National Anthem was patriotically recited by all present.

Students presented their thoughts on the importance of Republic Day, urgent need to curb the societal ills and working towards technology-driven societal advancement in India. Then, Students presented a cultural show with a musical performance by Sangam (the music band of students) and a street play by Nukkad (the drama group of students). The General Secretary of Student Gymkhana, IIT Jodhpur, proposed a Vote of Thanks. Thereafter, music, drawing and musical chairs competitions were organized for the children of IIT Jodhpur employees, and prizes were given to the winners.

A visit was arranged to the ongoing construction site of various buildings in the Permanent Campus of IIT Jodhpur. Students, Staff Members and Faculty Members, present for on the occasion, visited the site. The program was followed by lunch. Earlier in the morning, the National Flag was hoisted at the Academic Campus, and the GPRA and BSNL Residential Campuses.

Cultural programs by IIT Jodhpur Students on Republic Day, 26 January 2016

Tree Plantation in Permanent Campus of IIT Jodhpur

Tree plantation activity was undertaken at the Permanent Campus of IIT Jodhpur in Karwad on 21 February 2016. Around 900 neem saplings were planted jointly by the members of the IIT Jodhpur community and the Jodhpur Tree Plantation and Environment Protection Committee (JTPEPC), led by Sri M. S. Singhvi, Senior Advocate, (High Court of Rajasthan, Jodhpur) in the presence of Honourable Justice Sandeep Mehta, (Sitting Judge, High Court of Rajasthan, Jodhpur) and distinguished members of JTPEPC. The event was attended by Faculty Members, Staff Members, and Students of IIT Jodhpur, and 20 Advocates of High Court of Rajasthan, Jodhpur.

Tree plantation by Srimati. & Sri. M. S. Singhvi

Tree plantation by Professor & Srimati Prawal Sinha

Tree plantation by Professor N. M. Bhandari

Tree plantation by Staff Members of IIT Jodhpur

2nd International Day of Yoga @ IIT Jodhpur

The Second International Day of Yoga was celebrated on 21 June 2016 at GPRA Residential Campus of IIT Jodhpur. Faculty Members, Staff Members and Students actively participated in the event.

Chairman, Health Services, IIT Jodhpur introducing the program

Faculty and Staff Members of IIT Jodhpur doing Yoga

Yoga Instructors demonstrating to the participants

The participants and instructors at Porta Cabin, GPRA Residential Campus, IIT Jodhpur

OUTREACH

Extra Mural Lectures

Professor Amitabha Ghosh, Platinum Jubilee Senior Scientist, The National Academy of Sciences, India, and Former Director of IIT Kharagpur, delivered a lecture on "Gravitation Inertia and the Universe: The amazing consequences of a relook into the Newton's laws" on 1 February 2016.

Special Lecture

A special public lecture was delivered by Jerry M. Hultin, Chairman, Board of Directors, and Co-Founder, Global Futures Group, USA, on "REBUILDING CITIES: A holistic approach" on 9 February 2016. Jerry Hultin also served as the 15th President of the Polytechnic Institute of New York University.

Distinguished Lecture

A distinguished lecture on "The Development of Temple Architecture in India" was delivered by Dr. Chithra Madhavan, a renowned archaeologist and historian on 29 January 2016.

Vanguard Lectures

Professor Navneet Arora, Professor, Department of Mechanical and Industrial Engineering, Indian Institute of Technology Roorkee, delivered a lecture on "Excellence in Engineering and Expectations from an Engineer" on 07 January 2016.

Anil Bhansali

Prashant Gupta

Mr. Anil Bhansali, MD, Microsoft India (R&D) Private Limited and General Manager, Cloud & Enterprise, Microsoft India Development Center, and Mr. Prashant Gupta, Director in Microsoft Cloud & Enterprise Division, Microsoft India Development Center, spoke on "Advanced Analytics and Machine Learning on Cloud – Creating impact for Education, Healthcare and other domains" on 25 January 2016.

Professor Amitabha Ghosh, Platinum Jubilee Senior Scientist, The National Academy of Sciences, India, and Former Director of IIT Kharagpur, delivered a lecture on "Conceptual Evolution of Newtonian Mechanics & The Little Known Story of F=ma" on 4 February 2016.

Professor Raghunath K. Shevgaonkar, Professor, Indian Institute of Technology Bombay, and Former Director, Indian Institute of Technology Delhi, delivered a lecture on "Electromagnetic Theory" on 22 February 2016.

GIAN Program

1. The Third Course under GIAN Program on "Fundamentals of Applied Vehicle Dynamics and Chassis Systems" was organized at IIT Jodhpur during 12-23 January 2016. Professor B. Ravindra (IIT Jodhpur) and Professor Raghu Echempati (Kettering University) were the resource persons.

B. Ravindra

R. Echempati

2. The Fourth Course under GIAN Program on "Advanced Digital VLSI Circuit Design" was organized at IIT Jodhpur during 7-18 March 2016. Professor Suresh Gundapaneni (IIT Jodhpur) and Professor Manoj Sachdev (University of Waterloo, Canada) were the resource persons.

Suresh, G.

M. Sachdev

Conferences

1. National Conference on Solar Thermal Energy Technologies was organized during 26-28 February 2016 at IIT Jodhpur. Technical Co-Sponsor was Ministry of New and Renewable Energy, Government of India.
2. National Conference on Semiconductor Materials and Devices was jointly organized by IIT Jodhpur, Defence Lab Jodhpur, and Semiconductor Society of India at IIT Jodhpur during 4-6 March 2016.

Undergraduate Research Initiative

The Undergraduate Research Initiative (UGRI) Program of IIT Jodhpur provides an effective platform to the students to engage in research with Faculty Members of the Institute. Also, students can get a chance to develop valuable mentorship through the guidance of experienced Faculty Members of the Institute.

In 2016, 23 students were selected from a large pool of applicants, on the basis of the merit of the proposal submitted. The program was organized from 16 May to 15 July, 2016. During the program, a remuneration of Rs. 8,000 per month, was given as stipend to the participating students, along with an amount upto Rs. 1,000 for preparing posters and reports.

Participants of UGRI 2016 with the Barun Pratiher, Faculty Member In charge, UGRI 2016

WOMEN CELL @ IITJ

Celebration of 2016 International Women's Day

2016 International Women's Day was celebrated at the Indian Institute of Technology Jodhpur on 8 March 2016. The program was organized by Women's Cell, IIT Jodhpur. Honourable Justice Jaishree Thakur, Sitting Judge of Rajasthan High Court, Jodhpur, graced the occasion as the Chief Guest and delivered the keynote address.

The Women's Cell, IIT Jodhpur, organized Logo Design and Slogan Writing Competitions for their Students and Employees, before the day. During this program, Prizes and Certificates of Appreciation were given away to the Winners and Runners up. A memento was presented to the Chief Guest. On this day, the Women's Cell, IIT Jodhpur adopted an official logo and a slogan, which was released by the Chief Guest. They were the prize winning contributions from the Logo Design and Slogan Writing Competitions organized by the Women's Cell, IIT Jodhpur. Thereafter, a short video was screened on "Contribution of Women". The event concluded with a visit to the exhibition of the entries received in Logo Design and Slogan Writing Competitions organized for the occasion.

Honourable Justice Jaishree Thakur, Chief Guest, addressing the gathering

Releasing Logo and Slogan for the Women Cell

Members of the Women Cell, IIT Jodhpur

Exhibition of the Logo Design & Slogan Writing Competition

Workshop on "Gender Intelligence"

The Women Cell of the Institute organized a workshop on "Gender Intelligence" during 5-7 May 2016, for all employees of IIT Jodhpur. The workshop was conducted by Ms. Rashmi Datt and Ms. Mona Dutta from Dialog Services, Gurgaon. The first part of the workshop focused on assertive training aspect for women, which was attended by all women employees of the Institute. The second part of the workshop was for both men and women employees. The workshop was attended by the Faculty Members and Staff Members, including Members of Women Cell.

Workshop on "Gender Intelligence" Part 1 - Assertive training session for women

Workshop on "Gender Intelligence" Part 2 – Session on Prevention of Sexual Harassment (PoSH)

Participants of the Workshop on "Gender Intelligence" with Resource Persons

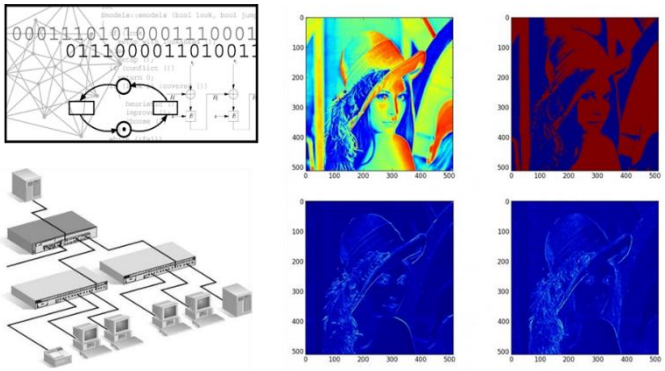
Other Events

A lecture on Recruitment Rules was organized in the Institute on 11 May 2016. Shri S. S. Nair, Deputy Secretary (Retd.), Government of India, who had several years of experience in dealing with the Recruitment Rules Division of the UPSC, spoke on the topic, interacted with the audience and addressed their queries. All Staff Members of the Institute attended the event.

DEPARTMENT IN FOCUS – Computer Science & Engineering

The primary objective of the *Department of Computer Science and Engineering* is to impart quality education in the field of Computer Science. The department's vision is:

1. To expand its depth and breadth in the research and study of core Computer Science and Engineering; and
2. To continually improve teaching and research environments towards creation of valuable technical human resources.
3. To establish strong industry – academia partnership to augment classroom discussions with practical hands-on experience.



The Department is currently offering Bachelor of Technology (B.Tech.) Program with the aim to develop core competence in Computer Science and Engineering among the students, and to prepare them to carry out research and development work. Every year, 40 students are admitted to the Program through the Joint Entrance Examination (Advanced). Currently, the graduated of the Program are placed in reputed industries within India and undergoing higher studies in reputed institutes and universities in India and abroad.

The Department has research interests in the areas of Computer Science and Engineering. Also, it offers the Doctor of Philosophy (Ph.D.) program is offered with the goal of producing state-of-the art researchers. Ph.D. students are working in the areas of video analytics, image understanding, cloud computing, document analysis, and internet of things. Presently, the Department has 10 Ph.D. Students. To strengthen its core competence, the Department is also looking for new Faculty Members in all areas of Computer Science and Engineering. Prospective candidates are encouraged to visit our recruitment page to know more about the procedure: http://iitj.ac.in/faculty/facultypositions.

Also, the Department is keen to collaborate with industry and academia. At present, research projects are underway with All India Institute of Medical Science (AIIMS), Jodhpur, and Department of Science and Technology, Government of India. Moreover, the Department is in close contact with industry leaders, like Microsoft, IBM, Intel, and TCS. In the near future, the Department is planning to move towards Outcome Based Education (OBE) along with a strong industry-academia partnership.

People

The Department has four regular Faculty Members and two Adjunct Faculty Members working in different areas.

Name of the Faculty Member	Designation	Research Area
Venkata Ramana Badarla	Assistant Professor & Head	Wireless Networks and Cloud Computing
Gaurav Harit	Assistant Professor	Image and Video Analysis
Chiranjoy Chattopadhyay	Assistant Professor	Computer Vision
Aritra Banik	Assistant Professor	Computational Geometry
Venkatesh Raman	Professor, The Institute for Mathematical Sciences, Chennai	Parameterized Complexity and Exact Exponential, Time Algorithms, Succinct (Space Efficient) Data Structures, Algorithms for satisfiability, and Sorting and Selection and related problems
Manindra K. Agarwal	Professor, IIT Kanpur	Complexity Theory, and Computational Number Theory

The department has six Technical Staff Members working in automation and networking areas.

Infrastructure

Currently, the Department has two laboratories, namely Multimedia Laboratory, and Networking Technologies Laboratory, used extensively in teaching and research.

Collaboration

The department is committed towards improving the Institute's outreach through all the stages of technology development, starting from conceptualization to commercialization, and thereby striving towards creation of knowledge in specialized domains. The Department's mission is to develop strong and sustainable partnerships with research laboratories, academic institutions, industry, and entrepreneurs to meet the aspirations of the Faculty Members and Students.

The Department is looking forward to work on problems that throw up an intellectual challenge and have practical, impactful applications. Along with this technology development initiatives, exploration of an idea related to process and design improvement is of considerable interest. The Department is seeking such partnerships, which recognise and capitalize on the relative strengths of the academia and industry. To achieve these goals, the Department is focusing on:

1. Development of strong industry collaborative in research, and specialized human resource development;
2. Identifying and protecting intellectual property; and
3. Developing and nurturing international linkages for research and development.

Outreach

The Department organized six departmental seminars, two special lectures and a lecture series on Machine Learning by industry experts, during January – June 2016.

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