

# REGIONAL CAMPUSES

## GURU NANAK DEV UNIVERSITY REGIONAL CAMPUS, GURDASPUR

### INTRODUCTION

#### COMMERCE & BUSINESS MANAGEMENT

The Department was established in year 1999. Since its inception, the department is offering two year full time degree course in Business management (MBA). The department was first in the region to offer this professional course. In 2013, two new courses were also introduced i.e., B.Com and M.Com. The syllabi of MBA, M.Com. and B.Com. are being regularly updated to keep pace with the latest development.

#### COMPUTER SCIENCE AND ENGINEERING

The Department of Computer Science and Engineering was established in year 2002. Since its inception, the Department offers 3-year MCA and 4-year full time B.Tech. (Computer Science and Engineering) courses. In the year 2013, M.Tech. in Computer Science & Engineering has been started. During the course, the students are given theoretical and hands-on training in Programming Techniques, Database Management System, Microprocessors, Operating Systems and other Application Software. The Department has been successfully catering the needs of the students hailing from different parts of the country and Punjab itself. The Department offers best infrastructure for both practical and theoretical purposes. The Department provides excellent environment condition which is best suited for academics. Students are counselled from time to time for their personality development and preparing them to face interviews. The Examination System consists of Semester along with Credit Grade Point Average (CGPA) evaluation of the students. The syllabi of MCA and B.Tech. are regularly updated to keep pace with the latest developments in the Industry. The Department possesses the assets in the form of knowledgeable and hard working faculty. The faculty of the Department undertakes an active interest in various research areas like Big Data Analytics, Cloud Computing, Internet of Things, Software Engineering, Computer Networks, Optimization Methods and Parallel Algorithm. The faculty regularly attends various International/National Conferences/Symposia and Workshops to keep themselves updated. Each member of the department bears a continuous responsibility to articulate, reinforce and reflect those values that support our highest aspiration.

#### ELECTRONICS & COMMUNICATION ENGINEERING

The Department of Electronics and Communication Engineering was established in the year 2002 at the Guru Nanak Dev University, Regional Campus, Gurdaspur to offer a 4-year B.Tech. (Electronics and Communication Engineering) course. Further, the department was extended to offer 2-year M.Tech. (Electronics and Communication Engineering) with specialization in Communication Systems and Ph.D. programme in year 2013. The department was established with the objective to impart technical education in the backward and rural area of the border belt. It provides competent technical manpower to meet the ever growing job opportunities in Telecom Industry, Education and various R&D institutions in Public and Private sector. The department has a well qualified and experienced faculty imparting quality technical education to achieve academic brilliance coupled with ethical values. The department has the fully equipped practical laboratories for various subjects such as Electronic Devices and Circuits, Communication Systems, Digital Electronics and Microprocessors, Microwave Engineering etc. Besides providing hardware practical training, the students are also motivated for the co-curricular, extracurricular and research activities. The department also provides various software tools eg. MATLAB, MULTISIM, ULTIBOARD and OPTISYSTEM, Lab VIEW to promote simulation and research work which inspires the students to innovate, complete projects and solve complex problems. The faculty members are motivated and funded for pursuing higher education and research to update their technical skills by attending various International/National Conferences/Seminars/Symposia, Short Term Programs and Workshops. The department has a well stocked library and online access to various international journals and conferences articles through INFLIBNET (eg. IEEE, Science direct, Taylor & Francis, Springer, etc.) to support research. The department also has an active technical student's society TSS# which organizes workshops, seminars, expert lectures, personality development sessions and an annual technical festival to explore and improve their technical skills.

## **LAWS**

The Department of Laws was established at Guru Nanak Dev University Regional Campus Gurdaspur in the Year 1999. The main aim to start Law Course at Gurdaspur is to cater to needs of the students of Backward Area. At Present the department offers B.A LL.B.(FYIC) Hons. course and the students from nearby areas of Gurdaspur like Batala, Dhariwal, Dinanagar, Pathankot, Mukerian, and other adjoining states like Jammu and Kashmir, Himachal Pradesh has taken admission here. The pass out students of this department are doing very well in their life. Every year 2-3 students clear PCS Judicial Exams and working as Judges, other settled as lawyers, good number of student opt for Master Degrees and choose their carrier as law teachers.

## **FACULTY**

### **COMMERCE AND BUSINESS MANAGEMENT**

**Head :** Rishi Raj Sharma, Ph.D. (Associate Professor)

**Assistant Professors :** Harpreet Singh Chahal, Ph.D.; Amardeep Kaur Ahluwalia, Ph.D.;  
Arwinder Singh, Ph.D; Sapna, M.Phil.; Rupamdeep Kaur Bains, MBA

### **COMPUTER SCIENCE AND ENGINEERING**

**Head :** Sandeep Kumar Sood, Ph.D. (Professor)

**Assistant Professors :** Amitpal Singh, M.Tech; Harjot Kaur, MCA; Taqdir, M.Tech;  
Mini Singh Ahuja, M.S.; Sharanjeet Singh, M.Tech.; Sandeep Kaur, M.Tech.

### **ELECTRONICS & COMMUNICATION ENGINEERING**

**Incharge :** Anu Sheetal, Ph.D. (Assistant Professor)

**Assistant Professors :** Shashi B Rana, Ph.D.; Satbir Singh, M.Tech.; Harjit Singh, M.Tech.

## **LAWS**

**Head :** Pawan Kumar, Ph.D. (Associate Professor)

**Assistant Professors :** Parminder Kaur, Ph.D.; Amandeep Kaur, LL.M.

## **ACHIEVEMENTS (FELLOWSHIP/HONOURS/AWARDS BY ACCREDITED/PROFESSIONAL BODIES)**

## **LAWS**

1. Four students of the Department Cleared PCS Judicial Services Exam in 2015.

## **PAPERS PUBLISHED IN PEER REVIEWED JOURNALS**

### **COMMERCE AND BUSINESS MANAGEMENT**

1. Kumar, Satinder and Sharma, Rishi Raj, "A Structural Equation Model of factors influencing the perceptions toward Ethical issue of Privacy in E-marketing", IIMS Journal of Management Science, (IIM) Indian Institute of Management, Shillong, December Volume 2015. Indexed with Index Copernicus (2011, ICV-5.22), Indian Science Abstract, Indian Citation Index, Google Scholar-Gate, EBSCO Discovery, SUMMON (Pro-Quest).
2. Kumar, Satinder and Sharma, Rishi Raj, "Empirical Analysis of Unethical Practice of Cookies in E-marketing", Abhigyan, FORE School of Management, New Delhi. Indexed with GALE-Cengage Learning (Farmington Hills, USA), Cabell's Directory of publishing opportunities in management of Cabell Publishing Inc. (Texas, USA), The Psyc INFO bibliography database of the American Psychological Association and Ulrich's International Periodicals Directory, USA.

3. Kumar, Satinder and Sharma, Rishi Raj (2015), "An Empirical Analysis of Unsolicited Commercial E-mail", Paradigm, IMT Ghaziabad, Vol. 18 No. 1, pp 1-19 Indexed /Listed with University of Illinois, Chicago.
4. Kumar, Satinder, and Rishi Raj Sharma (2015), "Consumer's Profiling and their Perceptions Towards Online Shopping", Indian Journal of Research in Management, Business and Social Sciences, Vol. 3, No. 1.
5. Ahluwalia, A.K. and Kamalpreet (2015), Organizational Commitment among Academicians, Jim Quest, Vol. 3, No. 1: 75-80, ISBN No. 2394-3386.
6. Singh, Arwinder and Bhandari, N. (2015) 'Factors Influencing a Prospective Youth's Level of Financial Literacy: An Exploratory Study of Amritsar City', Indo Global Journal of Commerce and Economics, August – September, 5, pp 86-90.
7. Singh, Harmandeep and Singh, Arvinder (2015) 'Internet Financial Reporting by Indian Public and Private Companies', Journal of Marketing and HR(JMHR), available at [www.scitecresearch.com/journals/index.php/jmhr](http://www.scitecresearch.com/journals/index.php/jmhr), Vol. 1, No. 1, pp. 25-32.
8. Kaur, Hardeep and Baljinder (2015), Critique: An International Interdisciplinary Research Journal, Vol. 1, Issue-II, ISBN No. 2454-1419.

#### **COMPUTER SCIENCE AND ENGINEERING**

9. Sandeep K. Sood, Rajinder Sandhu, "Matrix based Proactive Resource Provisioning Model for Mobile Cloud Environment", Simulation Modeling: Practice and Theory, Elsevier Ltd, Vol. 50, pp. 83-95, 2015.
10. Rajinder Sandhu, Sandeep K. Sood, "Scheduling of Big Data Applications on Distributed Cloud based on QoS Parameters," Cluster Computing, Springer, Vol. 18, No. 2, pp. 817-828, 2015.
11. Rajinder Sandhu, Sandeep K. Sood, "A Commercial, Benefit Driven and Secure Framework for ELearning in Cloud Computing," Computer Application in Engineering Education, John Wiley & Sons, Vol. 24, No. 4, pp. 499-513, 2015. Indexed in SCI, Thomson Reuters.
12. Navroop Kaur, Sandeep K. Sood, "Cognitive Decision Making in Smart Industry", Computers in Industry, Elsevier Ltd, Vol. 74, pp. 151-161, 2015.
13. Rajinder Sandhu, Sandeep K. Sood, Gurpreet Kaur, "An Effective Framework for Predicting and Preventing MERS-CoV Infections using Cloud Computing," Journal of Supercomputing, Springer, 2015. DOI: 10.1007/s11227-015-1474-0.
14. Sheetal Kalra, Sandeep K. Sood, "Secure Authentication Scheme for IoT and Cloud Servers", Pervasive and Mobile Computing, Elsevier, 2015. Vol. 24, pp. 210-223, 2015.
15. Navroop Kaur, Sandeep K. Sood, "A Game Theoretic Approach for an IoT-based Automated Employee Performance Evaluation", IEEE System Journal, 2015. DOI: 10.1109/JSYST.2015.2469102.
16. Navroop Kaur, Sandeep K. Sood, "An Energy-efficient Architecture for the Internet of Things (IoT)", IEEE System Journal, 2015. DOI: 10.1109/JSYST.2015.2469676.
17. Rajinder Sandhu, Harsuminder Kaur, Sandeep K. Sood, "Smart Monitoring and Controlling of Pandemic Influenza A (H1N1) using Social Network Analysis and Cloud Computing," Journal of Computational Sciences, Elsevier, vol. 12, pp. 11-22, 2015.
18. Kaur, H. and Kahlon, K. S. Dynamics of Artificial Agent Societies: A Survey and An Agent Migration Perspective. AI Communications, IOS Press, 2015, 28(3): pp. 511–537.
19. Sandeep. K. (2014) Comparison of Different Clustering Algorithms, published in IJSWS journal, Issue 10, Vol. 1, pp. 34-37.

## ELECTRONICS & COMMUNICATION ENGINEERING

20. Kalsotra Navdeep, Sheetal Anu and Arora Tarun (2015) A review on video dehazing techniques, International Journal of Latest Trends in Engineering and Technology, Vol. 5, No. 3:158-163, ISSN No: 2278-621X.
21. Shivani, Kaur Rajneet, Sheetal Anu (2015) SPEED A Real Time Routing Protocol in Wireless Sensor Networks, International Journal of Research in Advent Technology, Vol.3, No.6: 63-68, ISSN No: 2321-9637.
22. Kahlon Kaur Raspinderjit, Walia Singh Gurpreet, Sheetal Anu (2015) Channel Estimation Techniques in MIMO-OFDM Systems “ Review Article, International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, No. 5: 637- 642, ISSN No: 2278, 1021.
23. Kahlon Kaur Raspinderjit, Walia Singh Gurpreet, Sheetal Anu (2015) Performance Analysis of Discrete Fourier Transform Based Channel Estimation in MIMO-OFDM System, International Journal for Scientific Research and Development, Vol. 3, No. 4: 3234-3237, ISSN No: 2321-0613.
24. Kaur Aneet, Sheetal Anu (2015) Performance Analysis of 16 Å— 2.5Gb/s FSO System for the Most Critical Weather Conditions, International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, No. 5: 612- 618, ISSN No: 2321-0613.
25. Maan Sobia, Sheetal Anu (2015) A Review on Color Constancy Methods, IJSRD - International Journal for Scientific Research & Development, Vol. 3, No. 03: 325-328, ISSN No: 2321-0613.
26. Soni Honey, Sood Vaishali, Sheetal Anu (2015) Modeling of Fuzzy Based Handoff Decision Controller, International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, No. 5: 716-721, ISSN No: 2278-1021.
27. Singh Simranjeet, Sheetal Anu (2015) Comparison of Advance Data Modulation Formats in 4Å— 10Gbps WDM Optical Communication System using YDFA, EDFA and Raman Amplifier, International Journal of Innovations in Engineering and Technology, Vol. 5, No. 2: 389-396, ISSN No: 2321-9939
28. Kaur Mandeep, Sheetal Anu, S. B. Rana ( 2015) Performance Analysis of 32Å—10Gb/s DWDM Optical System using YDFA for Different Channels Spacing, International Journal of Innovations in Engineering and Technology, Vol. 5, No. 2: 383-388, ISSN No: 2319-1058.
29. Dhanju Kaur Paramjot, Sheetal Anu (2015) Optimization of Transport Performance of Externally Modulated and Directly Modulated Signals over SMF-28 and MetroCor Fibers, International Journal of Emerging Trends in Engineering and Development, Vol. 3, No. 5: 320-328, ISSN No: 2231-5381.
30. Saini Singh Simarjit and Sheetal Anu (2015) Coherent Optical OFDM System for Long-Haul Transmission, International Journal of Innovations in Engineering and Technology (IJIET), Vol. 5, No. 2: 397-404, ISSN No: 2319-1058.
31. Rana, Shashi B., Pandey, S., Hudiara, I. S., Singh, R. P. (2016) Effect of Ni Doping on Structural, Optical, and Magnetic Properties of Fe-Doped ZnO Nanoparticles, Journal of superconductivity and Novel magnetism, Vol. 29, No 1: 819-827 ISSN No:1557-1947.
32. Rana, Shashi B., Pandey, Sudhakar, Hudiara, I. S., Singh, R. P. (2015) Effect of Co Doping on Structural, Optical, and Magnetic Properties of Fe-Doped ZnO Nanoparticles, Journal of superconductivity and Novel magnetism, Vol. 28, No.12 : 3685-3691 ISSN No:1557-1947.
33. Rana, Shashi B., Pandey, Sudhakar, Hudiara, I. S., Singh, R. P. (2016) Influence of Co-doping on the Structural, Optical and Magnetic Properties of ZnO Nanoparticles, Int. J. Nanoelectronics and Materials, Vol. 9: 1-8 ISSN No: 1985-5761.

34. Singh, Abhijeet, Rana, Shashi B. (2015) Heterogeneous Routing Protocols in Wireless Sensor Network: A Survey, *International Research Journal of Engineering and Technology (IRJET)*, Vol. 02, No. 03: 1014-1019 ISSN No: 2395-0072.
35. Singh, Abhijeet, Rana, Shashi B. (2015) E-BEENISH: Enhanced Balanced Energy Efficient Network Integrated Super Heterogeneous Protocol for WSN, *International Journal of Electrical and Electronics Engineering (IJEEE)*, Vol. 2, No. 3: 26-30 ISSN No: 1694-2426.
36. Mannan, Manasvi, Rana, Shashi B. (2015) Fault Tolerance in wireless sensor network, *International Journal of Current Engineering and Technology (IJCET)*, Vol. 5, No. 3: 1785-1788 ISSN No: 2347-5161.
37. Kaur Mandeep, Rana, Shashi B. (2015) Performance Analysis of 32Å—10Gb/s DWDM Optical System using YDFA for Different Channels Spacing, *International Journal of Innovations in Engineering and Technology*, Vol. 5, No. 2:383-388 ISSN No: 2319-1058.
38. Kaur, Manjinder, Rana, Shashi B. (2015) Performance comparison of LEACH and GSTEB in Wireless Sensor Network, *International Journal of Engineering Research & Technology*, Vol. 4, No. 4:1379-1385 ISSN No: 2278-0181.
39. Kaur, Manjinder, Rana, Shashi B. (2015) A study of routing protocols and security threats in Wireless Sensor Network, *IRACST, International Journal of Computer Networks and Wireless Communications*, Vol. 5, No. 2: 465-474 ISSN No: 2250-3501.
40. Kaur, Rajinder, Rana, Shashi B. (2015) Routing Optimization in VANET, *International Journal of Advanced Trends in Computer Applications*, Vol. 1, No. 4: 43-46 ISSN No: 2395-3519.
41. Kaur, Rajinder, Rana, Shashi B. (2015) Performance Analysis of OLSR in VANET routing optimization using BFO, *International Research Journal of Engineering and Technology*, Vol. 2, No. 3: 1332-1344 ISSN No: 2395-0072.
42. Kashyap Shivanjali, Rana, Shashi B. (2015) Digital Image Watermarking for Copy Right Protection: Survey, Classification and Attacks, *International Journal of Scientific Research Engineering & Technology (IJSRET)* Vol. 4, No. 4: 392-397 ISSN No: ISSN: 2278- 0882.
43. Sharma, Charvi, Rana, Shashi B., Singh, H. (2015) Design and analysis of bowtie antenna, *International journal of Technology enhancements and Emerging engineering research*, Vol. 3, No. 05: 119-124 ISSN No: 2347-4289.
44. Kaur Sargun, Rana, Shashi B. (2015) Performance Evaluation of HE, AHE and Fuzzy Image Enhancement, *International Journal of Computer Applications*, Vol. 122, No. 23: 14-19 ISSN No: 0975-8887.
45. Kaur Sargun, Rana, Shashi B. (2015) Wireless Personal Area Networks architecture and protocols for multimedia application, *International Journal of Advanced Research in Computer and Communication Engineering*, Vol. 4 , No. 1: 108-122 ISSN No: 2319-5940.
46. Kaur Sargun, Rana, Shashi B. (2015) A review of medical image enhancement techniques for image processing, *International Journal of Current Engineering and Technology*, Vol. 5, No. 2: 1282-86 ISSN No: 2347-5161.
47. Bawa, Kanika, Rana, Shashi B. (2015) Prevention of Black Hole Attack in MANET using Addition of Genetic Algorithm to Bacterial Foraging Optimization, Vol.5, No.4: 2407-2413 ISSN No: 2347-5161.
48. Bawa, Kanika, Rana, Shashi B. (2015) A Security threat in MANET, *International journal of Engineering trend and Technology*, Vol. 23, No. 3: 220-30 ISSN No: 2231-5381.

49. Rana, Shashi B., S. Iqbal (2015) A survey of various lane detection techniques, International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 5, No. 6: 342-347 ISSN No: 2278-1323.
50. Rana, Shashi B., S. Iqbal (2015) Lane colourization using improved hough transformation, International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 5, No. 6: 111-117 ISSN No: 2278-1323.
51. K. Puneet, Rana, Shashi B. (2015) Development of Modified Polybius Technique for Data Security, International journal of Innovation in Engineering (IJJET), Vol. 2. No. 2: 227-229 ISSN No: 2319-1058.
52. K. Puneet, Rana, Shashi B. (2016) Development of modified AES algorithm for data security, Optik, Vol. 127: 2341, 2345 ISSN No: 0030-4026
53. Kaur Ikdeep, Singh Harjit and Sheetal Anu (2015) OLP Limits of DSP Based 400 Gbps DP 16-QAM Modulation in Non Linear Fiber Propagation, International Journal of Engineering and Techniques (IJET), Vol. 1: 46-53, ISSN No: 2395-1303.
54. Thakur Mohit, Kaur Raspinderjit Kahlon and Singh Harjit (2015) MIMO Technology using V-BLAST Equalization Techniques - Literature Survey, International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, No. 5: 282-285, ISSN NO: 2277-128X.
55. Kaur Kiranpreet and Singh Harjit (2015) Cluster Head Selection using Honey Bee Optimization in Wireless Sensor Network, International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, No. 5: 358-363, ISSN No: 277-128X.
56. Sharma Aditi and Singh Harjit (2015) TEDDEEC: Threshold Enhanced Developed Distributed Energy-Efficient Clustering Protocol for Heterogeneous Wireless Sensor Networks, International Journal of Computers & Technology, Vol.14, No. 6: 5789-5795, ISSN No: 2277-3061.
57. Mahajan Vishesh and Singh Harjit (2015) A Review on Underwater Wireless Sensor Networks, International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 5, No. 5: 1576-1583, ISSN No: 2277-128X.
58. Kaur Rupinder and Singh Harjit (2015) Review on Image Fusion and its Techniques, International Journal of Computer Networks and Wireless Communications (IJCNWC), Vol.5, No.2: 508-515, ISSN No: 2250, 3501.
59. Kaur Maninder, Singh Harjit and Arora Tarun (2015) Digital Video Watermarking Techniques: A Review Study, International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE), Vol. 4, No. 5: 202-121, ISSN No: 2278-909X.
60. Singh Harpreet and Singh Harjit (2015) Review on: Image Restoration using Low Rank Matrix Recovery and SVM, International Journal of Latest Trends in Engineering and Technology (IJLTET), Vol. 5, No. 3: 47-51, ISSN No: 2278-621X.
61. Singh Amritpal, Singh Harjit and Singh Gurpreet (2015) Comparative Study of PAPR Reduction Coding Techniques, International Journal of Innovations in Engineering and Technology (IJJET), Vol. 5, No. 3: 23-26, ISSN No: 2319-1058.
62. Sharma Charvi, Rana Shashi B. and Singh Harjit (2015) Design And Analysis Of Modified Bowtie Antenna, International Journal of Technology Enhancements and Emerging Engineering Research, Vol. 3, No. 05: 119 -121,ISSN No: 2347-4289.
63. Singh Simranjeet, Sheetal Anu, Singh Harjit (2015) Coherent Optical OFDM System or Long-Haul Transmission, International Journal of Innovations in Engineering and Technology (IJJET), Vol. 5, No. 2: 397-404, ISSN No: 2319-1058.

64. Sharma Pratibha and Singh Harjit (2015) Improvement of Brain Tumor Feature based Segmentation using Decision based Alpha Trimmed Global Mean Filter, *International Journal of Computer Applications*, Vol. 121, No. 21: 13-20, ISSN No: 0975-8887.
65. Thakur Mohit and Singh Harjit (2015) Performance Analysis of V-BLAST MIMO System using Different Modulation Techniques: An Analytical Approach, *IJSRD - International Journal for Scientific Research & Development*, Vol. 3, No. 04: 3216-3219, ISSN No: 2321-0613.
66. Saggu, K., Manpreet and S., Satbir (2015) Different Techniques to Dehaze an Underwater Image, *International Journal for Technological Research in Engineering*, Vol. 2, No. 6:566-568, ISSN No. 2347- 4718.
67. Saggu, K., Manpreet and S., Satbir (2015) A Review on Various Haze Removal Techniques for Image Processing, *International Journal of Current Engineering and Technology*, Vol. 5, No. 3:1500-1505, ISSN No. 2277-4106.
68. K., Rupleen, S., Sahil, and S., Satbir (2015) A Review of Various Fractal Geometries for Wireless Applications, *International Journal of Electrical & Electronics Engg.*, Vol. 1, Spl. No.1: 34-36, ISSN No. 1694-2310.
69. S., Sahil, K., Rupleen, and S., Satbir (2015) A Review of Various Planar Inverted F-Antenna (PIFA) Structures For Wireless Applications, *International Journal of Electrical & Electronics Engg.*, Vol. 1, Spl. No.1: 63-65, ISSN No. 1694-2310.
70. Saggu, K., Manpreet and S., Satbir (2015) Haze Removal from Underwater Images using Mixture Contrast Limited Adaptive Histogram Equalization, *International Journal of Scientific Research & Development*, Vol. 3, No. 05: 25-27, ISSN No. 2321-0613.
71. Madhvi, S., Satbir, and K., Baljit (2015) An Overview of Bluetooth Technology and its Communication Applications, *International Journal of Current Engineering and Technology*, Vol. 5, No. 3:1588-1592, ISSN No. 2277- 4106.
72. V.,Deeksha and S., Satbir (2015) Quadrature based Energy Efficient Hierarchical Routing Protocol for Heterogeneous Wireless Sensor Networks, *International Journal of Current Engineering and Technology*, Vol. 5, No. 3:1922-1925, ISSN No. 2277- 4106.
73. T., Preety and S., Satbir (2015) Sophisticated Routing Protocols Survey in the Presence of Warm Hole attack in MANET, *International Journal of Engineering Trends and Technology*, Vol. 23, No. 6: 281-283, ISSN No. 2231- 5381.
74. A., Moina and S., Satbir (2015) Simulative Analysis of Turbo Codes with Block Inter leaver using different Modulation Schemes on Rayleigh Channel, *International Journal of Scientific Research & Development*, Vol. 3, No. 03: 3361-3365, ISSN No. 2321- 0613
75. A., Moina and S., Satbir (2015) Simulative Analysis of Turbo Codes over AWGN Channel for BPSK Modulation Scheme, *European Journal of Advances in Engineering and Technology*, Vol. 2, No. 6:1-8, ISSN No. 2394-658X.
76. S., Patwant and S., Satbir (2015) Power Efficient gathering in Sensor Information Systems based on Ant Colony Optimization (ACO) in WSN, *International Journal of Engineering Research & Technology*, Vol. 4, No. 06: 948-951, ISSN No. 2278- 0181.
77. S., Patwant and S., Satbir (2015) A Review: Power Efficient Gathering in Sensor Information System (PEGASIS) protocol for WSN, *International Research Journal of Engineering and Technology*, Vol. 02, No. 03: 1010-1013, ISSN No. 2395- 0056.
78. K., Arshdeep and S., Satbir (2015) An Analysis of Low Energy Adaptive Clustering Hierarchy (LEACH) Protocol for Wireless Sensor Networks, *International Journal of Engineering Research and Development*, Vol. 11, No. 05: 01-07, ISSN No. 2278-067X.

79. K., Arshdeep and S., Satbir (2015) Modified Energy Efficient Multi-Hop LEACH Protocol for Wireless Sensor Networks, *International Journal of Engineering Research & Technology*, Vol. 4, No. 06: 952-955, ISSN No. 2278- 0181.
80. S., Ruchika and S., Satbir (2015) Detection of Sybil Attack in Mobile Ad-hoc Network (MANET) using Routing Protocols: A Survey, *International Journal of Engineering Trends and Technology*, Vol. 23, No. 7: 358-361, ISSN No. 2231- 5381.
81. Brar, S., Gurmandeep, S., Satbir, and Brar, S., Dheerajpal (2015) An Analysis of Various Approches for Transmission of Safety Message over the VANET Scenario, *International Journal of Current Engineering and Technology*, Vol. 5, No. 3:1703-1707, ISSN No. 2277- 4106.
82. B., Gulkaran and S., Satbir (2015) A review of millimeter wave generation for radio over fiber (ROF) systems, *Research Cell: An International Journal of Engineering Sciences*, Vol. 16, No.1: 403-408, ISSN No. 2320- 0332.
83. S., Prithipal and S., Satbir (2015) Survey of Four Wave Mixing with Different Number of Channels under the Impact of Different Channel Spacing, *Research Cell: An International Journal of Engineering Sciences*, Vol. 16, Issue 1: 409-414, ISSN No. 2320- 0332.
84. S., Pooja, S., Satbir (2015) A survey of WDM passive optical networks (PON) for networking support, *Research Cell: An International Journal of Engineering Sciences*, Vol. 16, No. 1:446-450, ISSN No. 2320- 0332.
85. S., Satbir, S., R., Hemant (2016) Molecular Receptor Antennas for Nano Communication: An Overview, *International Journal of Research in Electronics and Computer Engineering*, Vol. 4, No.1:13-16, ISSN No. 2348-2281.

## **LAWS**

86. Pawan Kumar, Sharma Priyanka (2015) Child Labour in India and its impact on Right to Education: A Socio-Legal aspect, *Law Herald* ISSN No. 2229630-1.
87. Pawan Kumar, Verma Mukta (2015) Right to Food: An Analysis with Reference to Food Safety and Standard Act, 2006, Rules 2011, *Advalorem* ISSN No. 2348-5485.
88. Pawan Kumar, Manjit Singh (2015) Right to Livelihood under Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014- An Analysis, *Indian Bar Review* 87-99.
89. Pawan Kumar, Verma Mukta (2015) Right to Food, Food Adulteration at National and International Law: Issues and Challanges, *New Man International Journals of Multidisciplinary Studies*, Vol. 2, Issue 6: 94-99 ISSN No. 2348- 1390
90. Parminder Kaur (2015) Personal Laws of India vis-a-vis Uniform Civil Code-A Retrospective and Prospective Discussion , *Law Mantra* , Vol. 2, Issue 5: ISSN No: 2321-6417.
91. Parminder Kaur (2015) The Protection of Women from Domestic Violence Act.2005: Some Emerging Issues., *International Journal of Humanities and Social Science* Vol.5, No. 2, ISSN No. 2250-3226.
92. Parminder Kaur, Amandeep Kaur (2015) Right to Information Act 2005: A Mandate for Legal and Procedural Transparency- An Evaluation, *International Journal of Humanities and Social Science studies*, Vol.1, Issue-VI: 27-31 ISSN No. 2349-6959.
93. Parminder Kaur, Arshipal Kaur (2015) Sexual Violence against Women: A Socio-Legal Study, *International Journal of Advance Contemporary Research*, Issue 3: 67-82 ISSN No. 2394-9503.
94. Parminder Kaur (2015) Concept of Surrogacy: Discussion on Ethical and Legal Aspects, *International Journal of Legal Sciences and Research*, 228-237 ISSN No. 2394-7977.



95. Parminder Kaur, Ranjit Singh (2015) Delegation of Legislative Powers to Executive: A Comparative Analysis of Indian And United States Law, International Journal of Political Science, Law and International Relations Vol. 5 Issue: 5 ISSN No. 2278-8840.

## **PAPER PUBLISHED IN NON-PEER REVIEWED JOURNALS**

### **COMPUTER SCIENCE AND ENGINEERING**

1. Kaur, H. and Kaur A., Population Dynamics in Artificial Agent Societies: A Review. International Journal of Advanced Research in Computer and Communication Engineering, 2015, 4(3).

## **PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS**

### **COMMERCE AND BUSINESS MANAGEMENT**

1. Sharma, Rishi Raj and Balpreet Kaur (2015), "Modelling the Affect of usability of Virtual Opinion Platforms on Customer satisfaction and Spreading the Positive Word-of-Mouth- An Empirical Study" in Proceedings of 6th International Conference on Marketing in Emerging Economies, organized by Indian Institute of Management (IIM), Ahmedabad, January 7-9, 2015, pp 379-384.

### **COMPUTER SCIENCE AND ENGINEERING**

2. Sahil, Sandeep K. Sood, Sandeep Mehmi, Sikha Dogra, "Artificial Intelligence for Designing User Profiling System for Cloud Computing Security: Experiment," International Conference on Advances in Computer Engineering and Applications (ICACEA), pp. 51-58, 2015.
3. Sikha Dogra, Sandeep K. Sood, Sandeep Mehmi, Sahil, "Security Pricing: A Catalyst for the large scale adoption of Cloud Computing," International Conference on Advances in Computer Engineering and Applications (ICACEA), pp. 799-802, 2015.
4. Sandeep K. (2015) Identification of organisms using DNA barcodes, published in International Multi Track Conference on science, engineering & technical innovations, Vol. 1 , organized by CT Group of Engineering Colleges, Jalandhar, Punjab.

### **ELECTRONICS & COMMUNICATION ENGINEERING**

5. Shivani, Kaur Rajneet, Sheetal Anu (2015) Survey on Routing Protocols in Wireless Sensor Network, International Conference on Communication, Information and Computing Technology (ICCICT-15)
6. Kaur Aneet, Sheetal Anu (2015) Performance Analysis of 2.5Gb/s FSO System under Different Weather Conditions for Various Advanced Modulation Formats, Proceedings of International Conference on Telecommunication Technology & Management (ICTTM-2015), Bharti School of Telecommunication Technology & Management, IIT Delhi: 163.
7. Kaur Paramjot Dhanju, Sheetal Anu and Singh Harjit (2015) Comparison of Transport Performance of Externally Modulated and Directly Modulated Signals over SMF-28 and MetroCor Fibers, Proceedings of International Conference on Telecommunication Technology and Management (ICTTM-2015), IIT Delhi, 120.
8. Kaur Ikdeep, Singh Harjit and Sheetal Anu (2015) Effect of GVD on DP 16-QAM at 400 Gbps Using DSP, International Conference on Communication, Information and Computing Technology (ICCICT-15), 580-584, ISBN: 978-93-83006-07-6
9. Rana, Shashi B. (2015) National Conference on Recent advances in Communication and Electronics RACE-2015, Dept. of Electronics and Communication Engineering, Kamla Instiute of Technology and Science, Singpur, Hyderabad (A.P.) on 27-28 February, 12-14.
10. Sharma Pratibha and Singh Harjit (2015) Review on Brain Tumor Detection and its Techniques, International Conference on Communication, Information and Computing Technology (ICCICT-15), 368-373, ISBN: 978-93-83006-07-6.

11. Kaur Ikdeep, Singh Harjit and Sheetal Anu (2015) Effect of GVD on DP 16-QAM at 400 Gbps Using DSP, International Conference on Communication, Information and Computing Technology (ICCICT-15), 580-584, ISBN: 978-93-83006-07-6
12. Kaur Paramjot Dhanju, Sheetal Anu and Singh Harjit (2015) Comparison of Transport Performance of Externally Modulated and Directly Modulated Signals over SMF-28 and MetroCor Fibers, Proceedings of International Conference on Telecommunication Technology and Management (ICTTM-2015), IIT Delhi, 120.
13. K., Rupleen, S., Sahil, S., Satbir, and K., Naveen. An Overview of Fractal Antenna Geometries, National Conference on Latest Initiatives & Innovations in Communication and Electronics (iiCe-2015), Chandigarh University, Gharuan, April 17, 2015.
14. S., Sahil, K., Rupleen, S., Satbir, and K., Naveen. A review of Planar Inverted F-Antenna (PIFA) for Wireless Applications, National Conference on Latest Initiatives & Innovations in Communication and Electronics (iiCe-2015), Chandigarh University, Gharuan, April 17, 2015
15. V., Deeksha and S., Satbir Energy Management in Wireless Sensor Networks by Solar Energy- A Survey, National Conference on Latest Initiatives & Innovations in Communication and Electronics (iiCe-2015), Chandigarh University, Gharuan, April 17, 2015.
16. S., Satbir. An Overview of Optical Nano Antennas for Wireless Communication Applications, National Conference on Latest Initiatives & Innovations in Communication and Electronics (iiCe-2015), Chandigarh University, Gharuan, April 17,2015.
17. S., Sahil, K., Rupleen, S., Satbir, and K., Naveen. A Compact T-Slot Multiband Planar Inverted-F Antenna for Handheld Devices, Proceedings of 2015 RA ECS, UIET, Panjab University, Chandigarh, 21-22<sup>nd</sup> Dec., 2015 (978-1-4673-8253-3/15©2015 IEEE).
18. K., Rupleen, S., Sahil, S., Satbir, and K., Naveen. A Multiband Fractal Square Patch Antenna for Aerospace Navigation, 12<sup>th</sup> IEEE India International Conference INDICON (E3-C3), Jamia Millia Islamia University, New Delhi, 17-20 Dec., 2015 (978-1-4673-6540-6/15©2015 IEEE).

## **CHAPTERS PUBLISHED IN BOOKS**

### **COMMERCE AND BUSINESS MANAGEMENT**

1. Ahluwalia, A.K. and Bedi, S. (2015) "Understanding cause related Marketing & its scope in India" in Nayyar, S (ed) Contemporary Issues in Business Finance, Marketing, Human Behaviour & Technology, KG Publishers, Amritsar, pp 253-258, ISBN No. 978-93-84138-57-8
2. Kamalpreet, Ahluwalia, A.K. and Khairan, N. (2015) "Gender wise differences among college teachers regarding commitment towards their organisation" in Nayyar, S (ed) Contemporary Issues in Business Finance, Marketing, Human Behaviour & Technology, KG Publishers, Amritsar, pp 199-205, ISBN No. 978-93-84138-57-8
3. Singh, A. and Bhandhari, N. (2015) 'Empowering Women through Financial Awareness, in Suman Nayyar (ed.) Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology, pp 292-98. ISBN 9789384138578.
4. Singh, A. and Sandhu, K.P.K. (2015) 'Trends and Flow of Foreign Investment in India, in Suman Nayyar (ed.) Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology, pp 274-83. ISBN 9789384138578.
5. Singh, A. and Sapna (2015) 'Trends and Growth of FIIs in India', in Suman Nayyar (ed.) Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology, pp 268-73. ISBN 9789384138578.

## **DETAILS OF PUBLISHED BOOK**

### **ELECTRONICS & COMMUNICATION ENGINEERING**

1. Rana Shashi B. (2014) Wi-Max Technology, Uniqueideaz Publishers, Jalandhar Total no. of pages-201 ISBN No. 978-81-922707-8-4

## **INTERNATIONAL CONFERENCES ATTENDED**

### **COMMERCE AND BUSINESS MANAGEMENT**

1. Rishi Raj Sharma attended 6<sup>th</sup> IIMA International Conference on Marketing in Emerging Economies, Indian Institute of Management, Ahmedabad, January 7-9, 2015.

### **LAWS**

2. Pawan Kumar attended International Conferences on Media and Law: The Contemporary Challenges and Strategies Organized by Amity Law School, Centre II, Uttar Pradesh, October 1, 2015.

## **NATIONAL CONFERENCES ATTENDED**

### **COMMERCE AND BUSINESS MANAGEMENT**

1. Harpreet Singh Chahal attended National conference on Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology, sponsored by UGC, at PG Department of commerce and Management, Khalsa College for Women, Amritsar, Punjab, 6 & 7 March, 2015.
2. Amardeep Kaur Ahluwalia attended National conference on Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology, sponsored by UGC, at PG Department of commerce and Management, Khalsa College for Women, Amritsar, Punjab, 6 & 7 March, 2015.
3. Arwinder Singh attended National conference on Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology, sponsored by UGC, at PG Department of commerce and Management, Khalsa College for Women, Amritsar, Punjab, 6 & 7 March, 2015
4. Sapna attended National conference on Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology, sponsored by UGC, at PG Department of commerce and Management, Khalsa College for Women, Amritsar, Punjab, 6 & 7 March, 2015.
5. Sapna attended National Conference on Sustaining and Enhancing Competitiveness in Today's Business Scenario held at GNA University, Sri Hargobindgarh, Phagwara, 21st March, 2015.
6. Sapna attended International Multi-stream Conference on technology & Life held at CKD Institute of Management & Technology, Tarn-Taran, Punjab, 8th November, 2015.
7. Annu Kumari attended National conference on Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology, sponsored by UGC, at PG Department of commerce and Management, Khalsa College for Women, Amritsar, Punjab, 6 & 7 March, 2015.
8. Annu Kumar attended National Conference on Sustaining and Enhancing Competitiveness in Today's Business Scenario held at GNA University, Sri Hargobindgarh, Phagwara, 21<sup>st</sup> March, 2015.
9. Annu Kumari attended International Multi-stream Conference on technology & Life held at CKD Institute of Management & Technology, Tarn-Taran, Punjab, 8<sup>th</sup> November, 2015.
10. Baljinder Kaur attended National conference on Disaster Management the need of the hour held at Shanti Devi Arya Mahila College, Dinanagar, 27<sup>th</sup> March, 2015.

## **ELECTRONICS & COMMUNICATION ENGINEERING**

11. S. B. Rana attended National Conference on Recent advances in Communication and Electronics RACE-2015 organized by Dept. of Electronics and Communication Engineering, Kamla Institute of Technology and Science, Singpur, Hyderabad (A.P.), 27-28<sup>th</sup> February, 2015.

## **LAWS**

12. Parminder Kaur attended National Conference On Gender Sensitivity: Law and Society Organized by College of Law and Legal Studies, Teerthanker Mahaveer University, Mordabad, 2 May, 2015.

## **PAPERS PRESENTED IN INTERNATIONAL CONFERENCES**

### **COMMERCE AND BUSINESS MANAGEMENT**

1. Rishi Raj Sharma presented a paper entitled “Viral Marketing: Modeling the Antecedents of Email Receivers’ Dissemination Behaviour” in 6<sup>th</sup> IIMA International Conference on Marketing in Emerging Economies, Indian Institute of Management, Ahmedabad, January 7-9, 2015.

## **LAWS**

2. Pawan Kumar presented Paper entitled' Social Media: Issue and Challenges in Cyber Space ' In International Conference on Media and Law: The Contemporary Challenges and Strategies Organized by Amity Law School, Centre II , Uttar Pradesh, October 1, 2015.

## **PAPERS PRESENTED IN NATIONAL CONFERENCES**

### **COMMERCE AND BUSINESS MANAGEMENT**

1. Harpreet Singh Chahal presented paper on “ Trust among Co-worker in Service Sector: An Empirical Study of Chandigarh Region” in National Seminar on “Contemporary Issues in Business Finance” sponsored by Marketing, Human Behavior and Technology, Khalsa College, Amritsar on 6-7 March 2015.
2. Arwinder Singh presented a paper titled “Web Based Corporate Reporting Practices in India” in Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology at Khalsa College for Women, Amritsar, 6 & 7 March, 2015.
3. Sapna presented a paper titled “Web Based Corporate Reporting Practices in India” in Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology at Khalsa College for Women, Amritsar, 6 & 7 March, 2015.
4. Sapna presented a paper titled “Impact of FIIs on Indian stock market” in Sustaining and Enhancing Competitiveness in Today’s Business Scenario held at GNA University, Sri Hargobindgarh, Phagwara, 21<sup>st</sup> March, 2015.
5. Sapna presented a paper titled “E-Commerce; Trends and Challenges” in International Multi-stream Conference on technology & Life held at CKD Institute of Management & Technology, Tarn-Taran, Punjab, 8<sup>th</sup> November, 2015.
6. Annu Kumari presented a paper titled “Trends and Growth of FIIs in India” in Contemporary Issues in Business Finance, Marketing, Human Behaviour and Technology at Khalsa College for Women, Amritsar, 6 & 7 March, 2015.
7. Annu Kumari presented a paper titled “Impact of FIIs on Indian stock market” in Sustaining and Enhancing Competitiveness in Today’s Business Scenario held at GNA University, Sri Hargobindgarh, Phagwara, 21<sup>st</sup> March, 2015.
8. Annu Kumar presented a paper titled “E-Commerce; Trends and Challenges” in International Multi-stream Conference on technology & Life held at CKD Institute of Management & Technology, Tarn-Taran, Punjab, 8<sup>th</sup> November, 2015.

9. Baljinder Kaur presented a paper titled "Biomedical Waste management" in Disaster Management the need of the hour held at Shanti Devi Arya Mahila College, Dinanagar, 27<sup>th</sup> March, 2015.

#### **LAWS**

10. Parminder Kau presented paper entitled 'Property Rights of Hindu Women- A Critical Analysis' In Gender Sensitivity: Law and Society Organized by College of Law and Legal Studies, Teerthanker Mahaveer University, Mordabad, 2 May, 2015.

### **ATTENDED WORKSHOPS/SEMINARS/SYMPOSIA/ ORIENTATION COURSES/REFRESHER COURSES**

#### **COMMERCE AND BUSINESS MANAGEMENT**

1. Rishi Raj Sharma attended two days National workshop on "Case study pedagogy in Management organised by University Business School, Guru Nanak Dev University, Amritsar, May 1-2, 2015.
2. Amardeep Kaur Ahluwalia attended two days National workshop on "Case study pedagogy in Management organised by University Business School, Guru Nanak Dev University, Amritsar, May 1-2, 2015.
3. Rupamdeep Kaur Bains attended two days National workshop on "Case study pedagogy in Management organised by University Business School, Guru Nanak Dev University, Amritsar, May 1-2, 2015.

#### **ELECTRONICS & COMMUNICATION ENGINEERING**

4. S.B. Rana attended one week Short Term Course (STC) on Laser: Development and Applications (ICT-12), sponsored by N.I.T.T.T.R, Chandigarh (MHRD, Govt. of India) at Guru Nanak Dev University, R.C., Gurdaspur from 13-17 July, 2015.
5. S.B.Rana attended one week short term course on EDA tools and Design methodologies in VLSI Communication System (ETVCS-15) at Dept, of Electronics and Communication Engineering at NIT Hamirpur (H.P.) held on June 12-16, 2015.
6. Harjit Singh attended one week Short Term Course (STC) on Laser: Developments and Applications (ICT-12), sponsored by N.I.T.T.T.R, Chandigarh (MHRD, Govt. of India) at Guru Nanak Dev University, RC, Gurdaspur from 13-17th July, 2015.
7. Harjit Singh attended General Orientation Course organized by Academic Staff College at GNDU, Amritsar, 5-30th May, 2015.
8. Anu Sheetal attended one week Short Term Course (STC) on Laser: Development and Applications (ICT-12), sponsored by N.I.T.T.T.R, Chandigarh (MHRD, Govt. of India) at G.N.D.U, RC, Gurdaspur from 13-17th July, 2015.
9. Satbir Singh. Faculty Development Program on Nano Science & Technology, Sponsored by TEQIP-II, NPIU, MHRD/PITTTR (Govt. of India) at B.C.E.T, Gurdaspur from 13.04.2015 to 17.04.2015.
10. Satbir Singh attended one week Short Term Course (STC) on Laser: Development and Applications (ICT-12), sponsored by N.I.T.T.T.R, Chandigarh (MHRD, Govt. of India) at Guru Nanak Dev University, R.C., Gurdaspur from 13-17 July, 2015.

#### **LAWS**

11. Pawan Kuma presented paper entitled 'Role of Legal Education in Present Social Scenario: Issues and Challenges' in National Seminar on Role of Legal Education in Present Social Scenario, Organized by Swami Sukhdevanand Law College on 2 March, 2015

12. Pawan Kumar presented paper entitled 'Minority Rights and the Law: Issues and Challenges in National Seminar on Minority Rights and the Law: Issues and Challenges, Organized by Rajiv Gandhi National University of Law on 22 March, 2015.
13. Parminder Kaur presented paper entitled 'Minority Rights in India: Constitutional Perspective' in National Seminar on Minority Rights and the Law: Issues and Challenges, Organized by Rajiv Gandhi National University of Law on 22 March, 2015.

## **INVITED LECTURER/EXTENSION LECTURERS/TALKS/ CHAIRING A SESSION/DISCUSSANT**

### **COMMERCE AND BUSINESS MANAGEMENT**

1. Rishi Raj Sharma, Chaired one of the technical Session at GNA University, Sri Hargobindgarh, Phagwara, 21 March, 2015.

### **COMPUTER SCIENCE AND ENGINEERING**

2. Sandeep K. Sood, Invited lecture on “Upcoming Trends in I.T.” in National Conference S.D.A.M.C. Dinanagar, 2015.
3. Sandeep K. Sood, Invited lecture on “Recent Trends in Computer & Communication Technology” in National Conference J.C.D.A.V.C. Dasuya, 2015.
4. Sandeep K. Sood, session chair in International Multi Track Conference organized by CT Institute of Engineering, Management & Technology, Jalandhar, 2015.
5. Sandeep K. Sood, expert talk on “Security Issues in Cloud Centric Internet of Things (IoT)” in International Multi Track Conference organized by CT Institute of Engineering, Management & Technology, Jalandhar, 2015.
6. Sandeep K. Sood, expert talk on “Research Contribution in Make in India ” in Faculty Development Program organized by CT Institute of Engineering, Management & Technology, Jalandhar, 2015.
7. Sandeep K. Sood, expert talk on “Elements of research in Computer Science” in Faculty Development Program organized by A.C.E.T. Amritsar, June, 2015
8. Sandeep K. Sood, expert talk on “Security of Password in E-Commerce Transactions” in UGC Sponsored National Seminar on Latest Emerging Trends in Computer Science & Information Technology, Kapurthala, 2016.
9. Sandeep K. Sood delivered lecture titled “TCP, UDP and Socket Programming”, at PT. Mohan Lal, SD College for Women, Gurdaspur, 21 March 2015.
10. Sandeep K. Sood delivered lecture titled “NP hard and NP complete problems”, at PT. Mohan Lal, SD College for Women, Gurdaspur, 18 April 2015.

### **ELECTRONICS & COMMUNICATION ENGINEERING**

11. Anu Sheetal delivered an expert lecture on Applications of Optical Fibers in a PTU Sponsored one week faculty development program held from 17-21 August, 2015 on Recent Trends in Communication Technology organized by the Department of Computer science & Engineering, Punjab Institute of Technology, Dinanagar.
12. Anu Sheetal delivered an expert lecture on Emerging Trends in Optical Communication in a PTU Sponsored one week faculty development program held from 17-21 August, 2015 on Recent Trends in Communication Technology organized by the Department of Computer Science & Engineering, Punjab Institute of Technology, Dinanagar.

13. S.B. Rana. Session chair at International Conference on Recent Cognizance in Wireless communication and Image processing Poornima Institute of Engineering and Technology, Jaipur (Rajasthan), January 16-17, 2015.
14. S.B. Rana. Reviewer at International Conference on Recent Cognizance in Wireless communication and Image processing held at Poornima Institute of Engineering and Technology, Jaipur (Rajasthan) India, January 16-17, 2015.
15. S.B. Rana delivered lecture entitled Nanomaterial at National Conference on trend in Electronics and Computational Technology (NCTECT-2015) at Ramnagar Campus, University of Jammu, 20 March, 2015.
16. S.B. Rana Session chair at National Conference on trend in Electronics and Computational Technology (NCTECT-2015) at Ramnagar Campus, University of Jammu on 20 March, 2015.
17. S.B. Rana Delivered lecture entitled Electronics component, circuit and Devices Shanti Devi Mahila College Dinanagar, 25 January, 2016.

**ORGANISED – SEMINAR/CONFERENCES/WORKSHOPS/  
INVITED LECTURES/COURSES/SYMPOSIA**

**ELECTRONICS & COMMUNICATION ENGINEERING**

1. Organised one week Short Term Course (STC) on Laser: Development and Applications (ICT-12) through ICT, sponsored by N.I.T.T.R, Chandigarh (MHRD, Govt. of India) at Guru Nanak Dev University, R.C., Gurdaspur from 13-17 July, 2015.