

# **GURU NANAK DEV UNIVERSITY REGIONAL CAMPUS, FATTU DHINGA**

## **INTRODUCTION**

Guru Nanak Dev University Regional Campus, Fattu Dhinga (Sultanpur Lodhi) Distt. Kapurthala was established in year 2011 under the esteemed guidance of Vice-Chancellor Prof. Ajaib Singh Brar, for promoting technical education in the rural area of Punjab. This Regional Campus is located in Village Fattu Dhinga, District Kapurthala, Punjab on Kapurthala, Sultanpur Lodhi Road in the Lap of pristine nature which adds to the beauty and glory of the Institution. This campus has a sprawling area of 25 acres of land. Surrounded by lush green land, the campus of the institute extends a beautiful and well developed area with many topographically featured picturesque landscape. The campus presents a spectacle of harmony and natural beauty. The location is well connected with roads having distance of 20 km from Kapurthala, 7 km from Goindwal Sahib, 18 km from Sultanpur Lodhi and 40 km from Jalandhar. Transport facility is available from Amritsar and others areas to Fattu Dhinga Campus.

Presently, this campus is comprised of four departments: Department of Electronics Technology, Department of Computer Science and Engineering, Department of Computer Science & Applications and Department of Commerce. These departments are equipped with all up-to-date facilities such as different type of laboratories related to different fields of Electronics and Communication Engineering as well as four big computer labs. All advanced study material and software such as MATLAB, OptiSystem, OptiSPICE, NetSim PSPICE, Microsoft Office, SQL etc are available for promotion of higher level research. Seminars, Lectures by resource persons, awareness camps, debates, quiz competitions, educational tours, women empowerment, Tree plantation drives and capacity building programs are integral part of the study at Regional Campus, Fattu Dhinga (Sultanpur Lodhi). Having been taught by one of the best faculties of the region, the students of RC Fattu Dhinga (Sultanpur Lodhi) have been empowered and groomed to take on the rigorous challenges in their upcoming lives. The Regional Campus is a perfect blend of curricular and extra-curricular activities where the students and teachers freely interact to uplift the standards of education under the aegis of Educational and Cultural Society. Technical Student Forum is active to organize different activities related to enhance the technical and personality development skills of the students. Students are also encouraged to participate in various sports activities. The placement record of B. Tech. (ECE & CSE) final year is also marvelous. Large number of final year students are recruited by well-known companies such as Tata Consultancy Services, Tech Mahindra, Cape Gemini, CSC, Videocon etc. Special book bank has been set up for students. Financial aid is also provided to financially weak and needy students in the form of fee concession by Guru Nanak Dev University, Amritsar and different scholarships such as Merit cum means scholarship given by Department of Minority Affairs, Government of India.

## **FACULTY**

**Head :** Derick Engles, Ph.D.

**Assistant Professors :** Kuldeep Singh, M.E. (ECE); Jaspreet Kaur, M.Tech. (ECE);  
Rajdeep Singh, M.Tech. (Communication Systems);  
Rajandeep Singh, M.Tech. Communication Systems);  
Amandeep Kaur Cheema, M.Tech (CSE); Gurpreet Singh, M.Tech. (CE)

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

1. Rajandeep Singh got best paper award for his paper "Performance Evaluation of S-band 16×10Gbps WDM System over +NZDSF with NRZ, RZ, CSRZ, SSB, Duo-binary Modulation Formats" presented in National Conference on Communication, Computing and systems (NCCCS-2015), held at Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, India. 2015.

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

1. Kaur, Rupan Preet; Sawhney, Ravinder Singh; Engles, Derick (2015) Contemplating Transport Characteristics by Augmenting the Length of Molecule Transmuting Geometry of Aromatic Molecular Junctions, *Quantum Matter*, Volume 4, Number 6, December 2015, pp. 610-617(8), American Scientific Publishers.
2. Kaur, Milanpreet; Sawhney, Ravinder Singh; Engles, Derick (2015) Perusing Quantum Transport Through Geometric Gold Electrodes in Flexible Electronics, *Quantum Matter*, Volume 4, Number 2, April 2015, pp. 182-189(8), American Scientific Publishers.
3. Kaur, Rupan Preet; Sawhney, Ravinder Singh; Engles, Derick (2015) Transmuting Geometry of Aromatic Molecular Junction, *Quantum Matters*, Vol.4, 1-4, 2015
4. Kumar, Ravinder and Engles, Derick (2015) Modeling the Charge Transport in Graphene Nano Ribbon Interfaces for Nano Scale Electronic Devices, *J. Multiscale Modelling* 06, 1450003 (2015) [7 pages] DOI: 10.1142/S1756973714500036
5. Mani Arora, Sandeep Sharma, Engles, Derick (2015) Parametric Comparison of MDS Algorithm”, *Journal of Computer Science*, ISSN (online): 1549-3636. April 2015.
6. Kaur, Rupan Preet; Sawhney, Ravinder Singh; Engles, Derick (2015) Proliferating conduction by isomerism, *Int. J. Comp. Mat. Sci. Eng.* 04, 1550024 (2015);DOI:10.1142/S2047684115500244
7. Singh, Kuldeep; Shama, Jatin; and Shama, Danish (2015) Article: Adaptive Modulation Based Link Adaptation for High Speed Wireless Data Networks using Fuzzy Expert System. *International Journal of Computer Applications*, No. 5:30-34, August 2015 ISSN: 0975 – 8887
8. Singh, Ranjit; Singh, Amandeep; Kaur, Jaspreet (2015) Adaptive Filter Design For Extraction of Fetus ECG Signal”, in ‘Springer Advances in Intelligent Systems and Computing (AISC) Series vol. 380 PP. 109-117, DOI: 10.1007/978-81-322-2523-2\_10, via IC3T 2015.
9. Kunal Pubby, Singh Rajandeep, Kaur, Ramandeep (2015) Performance analysis of FOPA by varying effective area of fiber, nonlinear refractive index and fiber length, *Journal of Computing Technologies*, Vol. 4, Issue 5, May 2015, ISSN: 2278-3814.
10. Kunal Pubby, Singh Rajandeep, Kaur, Ramandeep (2015) Investigating the effect of input power on fiber optical parametric amplifier, *Journal of Computing Technologies*, Vol. 4, Issue 5, May 2015, ISSN: 2278-3814
11. Singh, Gurpreet and Singh, Mansimar (2015) The Exposition of Enigma Software Defined Networking. *International Journal of Advanced Research in Computer and Communication Engineering*, Volume 4, Issue 4, April 2015 DOI 10.17148/IJARCCCE.2015.4498
12. Sidhu, Harmanbir Singh (2015) “A Review on Grid and Cloud computing on Performance Basis”, *International Journal of Science and Research (IJSR)*, April 2015.
13. Sidhu, Harmanbir Singh (2015) “Enhancing the Performance of Cloud based Application Systems for Robust Retrieval of Information using various Tools and Techniques”, *Journal of Network Communications and Emerging Technologies (JNCET)*, June 2015.

## **PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS**

1. Prashar, S; Engles, D.; Singh, P.; Comparative study to evaluate ERIs of optical fiber cladding modes using different geometries, *Signal Processing and Communication (ICSC)*, 2015 International Conference, 16-18 March 2015, 156–160, ISBN:978-1-4799-6760-5 INSPEC Accession Number:15290374 DOI:10.1109/ICSPCom.2015.7150639 Publisher: IEEE.
2. Prashar, S; Engles, D.; Singh, P.; (2015) Effect of material and waveguide parameters on strain sensitivity of uniform long-period fiber grating, *Signal Processing and Communication (ICSC)*, 2015:

16-18 March 2015, Page(s):448 - 451 Print ISBN:978-1-4799-6760-5 INSPEC Accession number:15290331 DOI:10.1109/ICSPCom.2015.7150695 Publisher: IEEE.

3. Kaur, Milanpreet; Sawhney, Ravinder Singh; Engles, Derick (2015) Probation of charge transport with Chalcogens as linker group for C20 fullerene. in International Conference on Recent Trends in Nano Science and Technology (RAINSAT-2015), July 8-10th, 2015 at Chennai and will be published in Materials Today Proceedings, Elsevier, pp-127. ISSN: 2214-7853.
4. Singh, Kuldeep; Dhillon, Kanwarpal Singh and Singh, Komaljit (2015) Fuzzy Logic based Closed Loop Adaptive Power Control for minimization of Near-far Interference in CDMA systems. In the Proceedings of 2nd International Conference on Recent Advances in Engineering and Computational Sciences (RAECS-2015), UIET, Panjab University, Chandigarh, December 21-22, 2015, ISSN: 978-1-4673-8253-3/15
5. Kaur, Jaipreet, Singh, M. L.; and Sohal, Rajdeep Singh (2015) Performance of Alamouti Scheme with convolution for MIMO systems” in the Proceedings of 2nd International Conference on Recent Advances in Engineering and Computational Sciences (RAECS-2015), UIET, Panjab University, Chandigarh, December 21-22, 2015, ISSN: 978-1-4673-8253-3/15
6. Singh, Rajandeep and Singh, M.L. (2015) Optimization of Thulium Doped Fiber Amplifier for S-Band”, International Conference on Advances in Computers, Communication and Electronic Engineering March 16-18, 2015 held at PG Department of Electronics and Instrumentation Technology University of Kashmir, Srinagar, India.
7. Singh, Rajandeep; Singh, M.L and Kaur, Ramandeep. (2015) Performance Evaluation of S-band 16×10Gbps WDM System over +NZDSF with NRZ, RZ, CSRZ, SSB, Duo-binary Modulation Formats. National Conference on Communication, Computing and systems (NCCCS-2015), held at Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, India.2015
8. Kaur, Ramandeep; Singh, Rajandeep and Kaur, Arashdeep. (2015) Performance Investigation of Bidirectional Dense Wavelength Division Multiplexed Passive Optical Network in the Scenario of Different Fiber Standards. National Conference on Communication, Computing and systems (NCCCS-2015), held at Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, India. 2015.
9. Singh, Rajandeep and Singh, M.L. (2015) Performance Evaluation of Different Modulation Formats in single span S-band 16×10 Gbps WDM System over SMF-28 fiber. WECON-2015, 4th national conference on Wireless Networks and Embedded Systems: An approach towards clean and sustainable Technologies (WECON-2015), Chitkara University, Rajpura, Punjab, India, 2015.
10. Singh, Amandeep and Singh, M.L. (2015) Automated Color Prediction of Paddy Crop Leaf using Image Processing. In IEEE Xplore via ‘International Conference on IEEE Technological Innovation in ICT for Agriculture and Rural Development (TIAR), 2015, Chennai, India, July 10-12, 2015, PP: 24 - 32, DOI: 10.1109/TIAR.2015.7358526, 2015.

### **INTERNATIONAL CONFERENCES ATTENDED**

1. Derick Engles attended International Conference on Recent Advances in Nano Science and Technology (RAINSAT-2015) Organized by Sathyabama University, Jeppiaar Nagar, Rajiv Gandhi Road, Chennai, July 8-10, 2015.
2. Rajdeep Singh Sohal attended International Conference on Recent Advances in Engineering and Computational Sciences (RAECS-2015) organized by UIET, Panjab University, Chandigarh, December 21-22, 2015.
3. Rajandeep Singh attended International Conference on Advances in Computers, Communication and Electronic Engineering organized by PG Department of Electronics and Instrumentation Technology University of Kashmir, Srinagar, India, March 16-18, 2015.

4. Amandeep Singh attended International Conference on IEEE Technological Innovation in ICT for Agriculture and Rural Development (TIAR), 2015, Easwari Engineering College Bharathi Salai, Ramapuram, Chennai, India, July 10-12, 2015.

### **NATIONAL CONFERENCES ATTENDED**

1. Rajandeep Singh attended National Conference on Communication, Computing and systems (NCCCS-2015), held at Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, India. 2015.
2. Rajandeep Singh attended 4<sup>th</sup> National Conference on Wireless Networks and Embedded Systems: An approach towards clean and sustainable technologies (WECON-2015) organized by Chitkara University, Rajpura, Punjab, India, 2015.

### **PAPERS PRESENTED IN INTERNATIONAL CONFERENCES**

1. Kaur, Milanpreet; Sawhney, Ravinder Singh; Engles, Derick (2015) Probation of charge transport with Chalcogens as linker group for C20 fullerene. in International Conference on Recent Trends in Nano Science and Technology (RAINSAT-2015), July 8-10th, 2015 at Chennai and will be published in Materials Today Proceedings, Elsevier, pp-127. ISSN: 2214-7853.
2. Kaur, Jaipreet, Singh, M. L.; and Sohal, Rajdeep Singh (2015) Performance of Alamouti Scheme with convolution for MIMO systems” in the Proceedings of 2nd International Conference on Recent Advances in Engineering and Computational Sciences (RAECS-2015), UIET, Panjab University, Chandigarh, December 21-22, 2015, ISSN: 978-1-4673-8253-3/15.
3. Singh, Rajandeep and Singh, M.L. (2015) Optimization of Thulium Doped Fiber Amplifier for S-Band”, International Conference on Advances in Computers, Communication and Electronic Engineering March 16-18, 2015 held at PG Department of Electronics and Instrumentation Technology University of Kashmir, Srinagar, India.
4. Singh, Amandeep and Singh, M.L. (2015) Automated Color Prediction of Paddy Crop Leaf using Image Processing. In IEEE Xplore via ‘International Conference on IEEE Technological Innovation in ICT for Agriculture and Rural Development (TIAR), 2015, Chennai, India, July 10-12, 2015, pp: 24 - 32, DOI: 10.1109/TIAR.2015.7358526, 2015.

### **PAPERS PRESENTED IN NATIONAL CONFERENCES**

1. Singh, Rajandeep; Singh, M.L and Kaur, Ramandeep. (2015) Performance Evaluation of S-band 16×10Gbps WDM System over +NZDSF with NRZ, RZ, CSRZ, SSB, Duo-binary Modulation Formats. National Conference on Communication, Computing and systems (NCCCS-2015), held at Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, India. 2015
2. Kaur, Ramandeep; Singh, Rajandeep and Kaur, Arashdeep. (2015) Performance Investigation of Bidirectional Dense Wavelength Division Multiplexed Passive Optical Network in the Scenario of Different Fiber Standards. National Conference on Communication, Computing and systems (NCCCS-2015), held at Shaheed Bhagat Singh State Technical Campus, Ferozepur, Punjab, India. 2015.
3. Singh, Rajandeep and Singh, M.L. (2015) Performance Evaluation of Different Modulation Formats in single span S-band 16×10 Gbps WDM System over SMF-28 fiber. WECON-2015, 4th national conference on Wireless Networks and Embedded Systems: An approach towards clean and sustainable Technologies (WECON-2015), Chitkara University, Rajpura, Punjab, India, 2015.

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

1. Derick Engles attended workshop on “Volunteer Training, Philosophy, Process and Best Practices” organized by National Board of Accreditation (NBA), 25th Feb. 2016, India Habitat Center, New Delhi.
2. Jaspreet Kaur attended 21 days, UGC sponsored special Winter School from 3dec. 2015 to 23 Dec. 2015 at UGC- Human Resource Development Centre, Guru Nanak Dev University, Amritsar.
3. Rajdeep Singh Sohal attended Short term course “Hands-on Experience on MATLAB”, 14-18 September, National Institute of Technical Teachers’ Training & Research 2015 Sector–26, Chandigarh.
4. Rajdeep Singh Sohal attended Orientation Programme OP-119, June 22 to July 18, 2015, Human Resource Development Center, Himachal Pradesh University Summer Hill, Shimla.
5. Rajandeep Singh attended refresher Course ‘Professional Course ID: Electronics & Communication Engineering’ in May 04-23, 2015 in Academic Staff College Punjabi University Patiala.
6. Gurpreet Singh attended ICT based course on “Cloud Computing” from 12.10.2015 to 16.10.2015 at NITTTR, Chandigarh.
7. Gurpreet Singh attended General Orientation Course-97 at UGC-Human Resource Development Centre, Guru Nanak Dev University, Amritsar from 05-05-2015 to 01-06-2015.
8. Amandeep Kaur attended one day Faculty Development programme on Value Addition in Teaching and Research under RUSA, organized by NJSA Government College, Kapurthala, 2015.

## **DETAILS OF SEMINAR/CONFERENCE/WORKSHOP/INVITED LECTURES/ COURSES/SYMPOSIA ORGANISED BY THE DEPARTMENT**

1. Organized one day online workshop on "NetSim: Network Simulator" with the help of Tetcos, Bangalore.
2. Organized One day Workshop on IT Security & Ethical Hacking with the help of ENJOIN Technology, Jalandhar.