## 1. List of Ongoing and Completed Projects of ETCE Department

- **Prof. Iti Saha Misra:** "Call Admission Control for the Optimization of Resource Utilization" funded by UPE II, UGC, Total budget: 7 lakhs + 1 Research Scholar, duration: 2 years, national, Ongoing.
- **Prof. Iti Saha Misra:** "Designing a SDR based Cognitive Radio Networking test-bed involving multiple WARP boards" funded by Mobile Computing project, UPE II, UGC, Total budget: 8 lakhs+ 1 research scholar, 2 years, national, Ongoing.
- **Dr. Chayanika Bose**: "Modelling optoelectronic and transport characteristics of semiconductor nanostructures," funded by UPE II ,UGC, 6.11 lakhs, 2years, national ,Ongoing.
- **Prof. Bhaskar Gupta:** "Study and Optimization of Microstrip Antenna System to Receive Satellite Link from Moving Trains," sponsored by ISRO–Rs. 10.93 lakhs, national, ongoing.
- **Prof. Bhaskar Gupta** Establishment of New National MEMS Design Centers sponsored by National Program on Micro and Smart Sensors (Aeronautical Development Agency) Rs. 11.16 lakhs, national, ongoing
- Prof. Bhaskar Gupta "Design and Fabrication of Two Movable Plate Miniaturized RF MEMS Switched Capacitor and Phase Shifter," sponsored by National Program on Micro and Smart Sensors(Aeronautical Development Agency) Rs. 33.88 lakhs, national, ongoing.
- **Prof Chandan Kumar Sarkar:** Development of Graphene Based Hydrogen Sensor,14.28 Lakhs, Three Years, CSIR, national, ongoing.
- Prof Chandan Kumar Sarkar UGC Potential of Excellent –II 10 Lakhs, Two Years, 2012-14, UGC, Ongoing
- **Prof Chandan Kumar Sarkar**: RF Performance Trends of Nano-Scale MOS Devices,8 Lakhs, Three Years, AICTE, ongoing.
- **Prof Chandan Kumar Sarkar**: Scaling of MOSFETs in the Nano Regime, 8.5 Lakhs Three Years 2005-08, AICTE, Completed
- **Prof Subir. Kumar Sarkar:** "Design and simulation of logic circuits with hybrid architectures of single electron transistors and conventional MOS devices," CSIR 7.25 lakhs + JRF, national, on-going.
- Prof Subir. Kumar Sarkar: "Modelling and simulation of Nano scale SON MOSFET suitable for ultra-dense and low power VLSI circuit". DRDO, 14.88 Lakhs, National, ongoing.
- **Prof Subir. Kumar Sarkar:** "Low Power ASIC-VLSI Implementation of Secure and Authentication Algorithms for Defense Application," UGC UPE Phase-II, 7.82 Lakhs, Natinal, Ongoing
- Prof Subir. Kumar Sarkar: "RFID in Avian influenza hazards- A Case study for design and implementation of a processor for early bird flu detection and cost effective poultry management", CSIR, 8.64 Lakhs, national, ongoing.

- **Prof Subir. Kumar Sarkar**: "Nano Single Electron and Spintronic devices as ASIC VLSI chips for medical and space applications". UGC UPE Phase-II, 7.32 Lakhs, National, Ongoing.
- **Prof Subir. Kumar Sarkar**: "Modelling of low power consuming ultra-dense VLSI chip using Nano and single electron devices for space vehicles and defence application," DRDO, Govt. of India, 10 lakhs, completed.
- **Prof Subir. Kumar Sarkar**: "Development of an ASIC-VLSI multi-chip zigbee RFID network processor for the realization of power efficient smart industries/homes," UGC, 9.66 Lakhs, completed.
- **Prof Subir. Kumar Sarkar**: "Development of highly secured and authenticated algorithm and its low power ASIC-VLSI implementation suitable for defence application," DRDO, Govt. of India, 14.98 lakhs, completed.

## 2. Achievements by Department and Special Programs

(DST-FIST; UGC-SAP/CAS, DPE, DRS, DBT, ICSSR, COSIST)

- No of Journal published (2008-2014) = 416
- No of Ph.D (2008-2014): Awarded: 36, Ongoing: 30
- No of Best Paper Award (2008-2014): 18
- Refresher Course organized/ attended = 5
- Department was highly involved in organizing 2012 International Conference on Communications, Devices and Intelligent Systems (CODIS) Date: 28 & 29, Dec. 2012;
- The Department was highly involved in organizing **INDOCON-2010**, the flagship conference of IEEE in India.
- Department involved as in the International program of Time- Eye (Sun Pendulum)
  program sponsored by Govt. of Austria as one of the twelve centres spread all over the
  world.
- Department houses a modern digital EPABX Exchange.
- IC Centre promotes academic entrepreneurship programs, Battery Powered Van Richksaw, Solar Lantern, Solar Cells in rural areas.

### **Special Programmes:**

- The Department has the honour to obtain **COSIST programme** in the year 2000 for Integrated Computer Communication systems.
- **Prof. Salil Kumar Sanyal and Prof. Iti Saha Misra:** DST FIST (Rs.89.60 Lakhs) and DST PURSE Projects (Rs. 8,00,000/- + 5 Research Scholars), ETCE Department funded by DST, Govt. of India, (DST-FIST 2007, DST-PURSE 2010).
- Prof Amit Konar: UGC UPE-II: Rs.35 Lakhs (UGC-University Potential for Excellence

- Program in Cognitive Science, Phase-2).
- Prof. Bhaskar Gupta: Radio Frequency Communication System Design, Fabrication and Measurement Technique – Sponsored by UGC under Special Assistance Programme (SAP) at the level of DRS I- 59.0 Lakhs.
- Department of ETCE, Jadavpur University has been selected as Participating Institution in Special Manpower Development Project (SMDP-II) as an extension to SMDP-I program within the tenure of 2005-2012. The required facility for manpower development has been placed at the IC Center of ETCE dept. **Prof. Chandan Kumar Sarkar** is the coordinator of the SMDP-II program. Total grant received is 59 Lakhs.
- Dept. of ETCE, Jadavpur University has participated in India Chip Program (ICP) under SMDP –II program. Under this program, Dept. of ETCE has done collaborative VLSI chip fabrication with Resource Collaborative Institutions from abroad. Among them one of the Resource Institution is IIT Kharagpur and other one involves IIT Guwahati.

# 3. <u>Inter-institutional collaborative projects and associated</u> grants received

- **Prof. Bhaskar Gupta**: 'Infrastructural Communication Technologies Supporting Fully Ubiquitous Information Society' sponsored by Govt. of Japan (Indo Japan Collaborative Project) (Completed) Japan Yen 30 millions/year for 3 years.
- **Prof. Bhaskar Gupta**: Development of RF MEMS Capacitive Shunt Switch in Application as Phase Shifters for Satellite Communication Systems sponsored by ISRO Rs. 4.7975 Lakhs [in collaboration with IIT KGP], national, ongoing.
- Prof. Bhaskar Gupta: Design and Development of High Speed Miniaturized RF MEMS
   Switched Capacitor sponsored by ISRO –Rs. 19.70 lakhs [in collaboration with IIT KGP], national, ongoing.
- **Prof. Bhaskar Gupta**: DST sanctioned Indo Tunisian Project "Development of Wearable Antenna for Body Centric Application and Studies on their Physiological Effects" Rs. 14,49,000/-, International collaborative, Ongoing.

# 4. Monographs /Book Chapters

#### 2012

1. Subir Kumar Sarkar, T.G. Basavaraju, C.PuttamadaPpa, "Ad Hoc Mobile Wireless Networks: Principles, Protocols, and Application," Second Edition, CRC Press, Taylor & Francis Group.

- 2. Nilanjan Dey, Anamitra Bardhan Roy, Achintya Das and Sheli Sinha Chaudhuri, "Recent Trends in Computer Networks and Distributed Systems Security," published in Springer Berlin / Heidelberg in Communications in Computer and Information Science, 2012, ISBN 978-3-642-34134-2, Vol 335, Part 2, Pp 347-357, DOI: 10.1007/978-3-642-34135-9\_35 [Springer]
- 3. Anisha Halder, Srishti Shaw, Kanika Orea, Pavel Bhowmik, Aruna Chakraborty, and Amit Konar, "A Computational Intelligence Approach to Emotion Recognition from the Lip Profile of a Subject," In Computational Intelligence in Image Processing, Springer Amitava Chatterjee and Patrick Siarry (Eds.), 2012.
- 4. Rajshree Mandal, Anisha Halder, Amit Konar and Atulya K. Nagar "A Fuzzy Condition Sensitive Hierarchical Algorithm for Approximate Template Matching in Dynamic Image Sequence," In Modern Image Processing Algorithms Employing Computational Intelligence Techniques, Springer Amitava Chatterjee and Patrick Siarry (Eds.), 2012

#### 2011

- Koushik Majumder, Sudhabindu Ray and Subir Kumar Sarkar (2011), "Design and Analysis of a Multi-Level Location Information Based Routing Scheme for Mobile Ad Hoc Networks," Mobile Ad-Hoc Networks: Applications, Prof. Xin Wang (Ed.), ISBN: 978-953-307-416-0, January 30, 2011, Under CC BY-NC-SA 3.0 license.
- A.S. Chowdhury and S.M. Bhandarkar: Computer Vision-guided Virtual Craniofacial Surgery: A
  Graph-theoretic and Statistical Perspective, Advances in Computer Vision and Pattern
  Recognition Series (ACVPR), Springer-Verlag. London, UK, ISBN 978-0-85729-295-7. (2011).
- 7. M. Sen, A.K. Rudra, A.S. Chowdhury, A. Elnakib and A. El-Baz: Cerebral White Matter Segmentation using Probabilistic Graph Cut Algorithm, in Multi-Modality State-of-the-Art Medical Image Segmentation and Registration Techniques, Vol. II, A. El-Baz, R. Acharya, A. Laine (eds.), Springer-Verlag, NY, USA (2011), 41-67.
- 8. A. Konar, A. Chakraborty, P. Bhowmick, Souvick Das and A. Halder, "Emotion Recognition from facial expression, voice and EEG signals," In Cross-Disciplinary Applications of Artificial Intelligence and Pattern Recognition: Advancing Technologies, V. K. Mago and N. Bhatia (eds.), IGI Global, 2011.
- 9. K. Bakshi, S. Chandra, A. Konar and D. N. Tiberawala, "Hand Tremor Prediction and Classification Using Electromyogram Signals to Control Neuro-Motor Instability," In Cross-Disciplinary Applications of Artificial Intelligence and Pattern Recognition: Advancing Technologies, V. K. Mago and N. Bhatia (eds.), IGI Global, 2011.
- 10. S. Sikdar, A. K. Pal, V. Talukdar and A. Konar, "Biclustering of Gene Microarray Data Using Multi-objective Evolutionary Optimization Algorithms," In Recent Trends in Computational Biology and Computational Statistics Applied in Biotechnology and Bioinformatics, Ajit K. Roy (ed.), New India Publishing Agency, New Delhi, 2011.

11. Chakraborty and A. Konar, "Stability and Chaos in Cognitive Reasoning," The Handbook of Reasoning based Intelligent Systems, J. Nakamatshu and L.C. Jain (eds.), World Scientific, 2011.

#### 2010

- 12. D. Datta, A. Konar, S. Das and B. K. Panigrahi, "Gene Regulatory Network Identification from Gene Expression Time Series Data Using Swarm Intelligence," In Swarm Intelligence Handbook, L. M. Hiot, Y. Shi and B. K. Panigrahi, (eds.), Springer, 2010.
- 13. V. Talukdar, A. Konar, S. Paria, S. Maity, T. K. Pal, "A new approach to gene prediction, based on the self-organizing map," International Journal of Medical Engineering and Informatics, vol. 2, no. 2, Pp. 107 121, 2010.
- 14. A. Acharya and A. Konar, "An improved Ant colony optimization algorithm for better speed up and accuracy," In Swarm Intelligence Handbook, L. M. Hiot, Y. Shi and B. K. Panigrahi, (eds.), Springer, 2010.

#### 2009

- 15. Salil Kumar Sanyal Contributed a Chapter on "Architecture of Embedded Tunable Circular Microstrip Antenna" jointly with Dr. T.Chakravarty & Prof. A.De in the book entitled "Large Scale Computations, Embedded Systems and Computer Security" edited by F.Komarov & M. Bestuzhev and published by Nova Publishers, USA under editorial production in 4<sup>th</sup> Quarter 2009.
- 16. Salil Kumar Sanyal has Contributed Chapter 3 on "Architecture of Embedded Tunable Circular Microstrip Antenna" jointly with Dr. Tapas Chakravarty, & Prof. Asok De in the book entitled "Java Software and Embedded Systems," edited by Mattis Hayes and Isaiah Johansen and published by Nova Publishers, USA Pp. 117-136, 4th Quarter 2009.
- 17. S.Gowrishankar, T. G. Basavaraju, Subir Kumar Sarkar, "Analysis of Overhead Control Mechanisms in Mobile AD HOC Networks," Advances in Electrical Engineering and Computational Science, Lecturer Notes in Electrical Engineering, Springer Publications, 2009.

#### 2008

- 18. S.Das, A. Abraham, and A.Konar, "Particle Swarm Optimization and Differential Evolution Algorithms: Technical Analysis, Applications and Hybridization Perspectives," Advances of Computational Intelligence in Industrial Systems, Ying Liu et al. (Eds.), Studies in Computational Intelligence, Springer Verlag, Germany, 2008.
- 19. J.Chakraborty, A.Konar and A.Chakraborty, "Multi-Robot Cooperation by Swarm and Evolutionary Algorithms," In Computational Intelligence, Control and Computer Vision in Robotics and Automation, Ed. B. Subudhi, Narosa, 2008.
- 20. P. Venkateswaran et al. Contributed Section 6.5, Community-Based Obstacle Mobility for the Handbook of Mobile Ad Hoc Networks for Mobility Models, Edited By Radhika Ranjan

Roy, Springer Science+Business Media, (ISBN 978-1-4419-6048-1), Pp. 203 to 213, LLC 2011, USA.

## 5. Books published:

#### 2012

- 1. A. Konar, "Embedded Systems: Principles, Techniques and Applications," 2012, accepted for publication.
- 2. Prof. Iti Saha Misra: Published 2nd edition of the book "Wireless Communication and Networks, 3G and Beyond, Mc Graw Hill, India, June 2013.
- 3. Subir Kumar Sarkar, "Wireless Sensor and Ad-Hoc Networks under Diversified Network Scenarios," Artech House (2012).

#### 2011

- 4. A. Konar, V.Talukdar, and A.Datta, "The Art of Problem Solving in Bioinformatics and Computational Biology," Springer, 2011.
- 5. Amit Konar, and Aruna Chakraborty, "(Eds.) Advances in Emotion Recognition," Wiley-Blacwell, 2011.
- 6. Amit Konar, and Sumantra Chakraborty, Abduction: Reasoning with Type-1 and Type-2 Fuzzy Sets, Springer, Heidelberg, 2011.
- 7. Amit Konar and Jaya Sil, Rough and Fuzzy Pattern Recognition, Jones and Bartlet, 2011.
- 8. "Technology Computer Aided Design: Simulation for VLSI MOSFET" Edited by Prof. C. K. Sarkar, CRC Press, Taylor & Francis Group, LLC, 6000 Broken Sound Parkway NW, Suite 300, Boca Raton, Florida 33487, U.S.A.
- 9. "Study on Data Hiding and Multimedia Data Communication: Methods, Analysis and Realization," Tirtha Sankar Das, Subir Kumar Sarkar, LAP LAMBERT Academic Publishing (August 25, 2011).

#### 2009

- 10. **S. Das, A. Abraham, and A. Konar,** "Metaheuristic Clustering, Studies in Computational Intelligence Series", Springer, 2009.
- 11. **A. Chakraborty, and A. Konar**, "Emotional Intelligence: A Cybernetic Approach", Springer, September 2009.
- 12. **Iti Saha Misra** published a book entitled: "Wireless Communications and Networks: 3G and Beyond", McGraw Hill India, June 2009.

# 6. <u>Awards / Recognitions received at the National and International level by Faculties</u>

- ➤ **Prof. Iti Saha Misra** has obtained the **Young Teacher Career Award**, All India Council for Technical Education (AICTE), India, (**AICTE CAYT**)
- ➤ **Prof. Iti Saha Misra** is one of the author for obtaining obtained the 2012 **Best Paper Award** on for the paper entitled "Design and Study of VoIP model in cognitive radio network under different simulation platforms", networks track in CUBE 2012: ACM International IT conference & exhibition 2012.
- ➤ **Prof. Iti Saha Misra** is one of the author for obtaining 2009: **Best Paper Award** on the work on "3G/WLAN integration", in IEEE Int Conf. On ADCOM-2008
- > Prof. Iti Saha Misra obtained the 2007: IETE Gowri Memorial Award for best paper on the topic of 4G review
- > The activities undertaken by Prof. Iti Saha Misra as chairperson of IEEE Women in Engineering Affinity Group, Calcutta Section, culminated in receiving the award for first place of 2007 IEEE Women in Engineering Affinity Group of the year in a world wide competition.
- > Amit Konar has been appointed as an Associate Editor, IEEE Transaction on Fuzzy Systems.
- ➤ Amit Konar has been selected as the Program Chair of IEEE sponsored prestigious Fuzz-IEEE conference.
- **Bhaskar Gupta** has been selected as Part Time Non Official Director, Direct Freight Corridor Corporation Ltd., Government of India.
- Bhaskar Gupta has been appointed as Non official Part Time Director, RailTel Corporation of India Ltd., Government of India.
- > Bhaskar Gupta has been appointed as Chairman, West Bengal Joint Entrance Examination Board.
- ➤ **Bhaskar Gupta** has received Best paper award in International Conference on Information and Electronics Engineering, IPCSIT, Bangkok, 2011
- **Bhaskar Gupta** has obtained Best Paper Award in ICMARS 2011, Jodhpur, Rajasthan.
- > Salil kumar Sanyal has been appointed as Chairman, Circuits and Systems Society Chapter of IEEE Calcutta Section.
- ➤ Salil kumar Sanyal has been selected as Member National Advisory Committee, AICTE Sponsored National Conference on Energy System Planning, Implementation and Operation (ESPIO-2011) organized by JIS College of Engineering, Kalyani, August 2011.
- ➤ Salil kumar Sanyal has been selected as Member National Advisory Committee, National Conference on Computing, Communication and Sensor network (CCSN-11) organized by The Institution of Engineers (India), Rourkela Local Centre & Purushottam Institute of Engineering and Technology, Rourkela, October 2011.
- ➤ Salil kumar Sanyal has been selected as Organizing Chairman, National Conference on Electrical, Electronics and Computer Engineering (CALCON 2011), organized by IEEE Calcutta Section, Kolkata, November, 2011.
- ➤ Salil kumar Sanyal has attended the AICTE Meeting of Heads of Institutions to discuss changes in the APproval Process for the academic year 2012-13 as a representative from Jadavpur University on 29<sup>th</sup> November, 2011 at University of Calcutta.

- ➤ Salil kumar Sanyal has been selected as Member, International Program Committee, 14<sup>th</sup> IEEE International Conference on Computer and Information Technology (ICCIT 2011) organized by American International University, December, 2011, Dhaka, Bangladesh.
- ➤ Iti Saha Misra has been appointed as Secretary, IEEE Kolkata Section.
- > Subir Kumar Sarkar has been selected as the chair to organize an IEEE-sponsored International conference CODIS-12 by the Department.
- Subir Kumar Sarkar acted as judge in a technical session on simulation and modeling in International conference on Sustainable energy and intelligent system (SEISCON 2011), 21 July 2011, Dr. M.G.R University, Chennai, Tamil Nadu.
- A.S. Chowdhury acted as a member of the screening committee for Ph.D. applications from India to USA under Fulbright Scheme (organized by United States Education Foundation in India (USEFI)).
- > Sudhabindu Ray has been appointed as member of technical subcommittee ,West Bengal Jointentrance Board
- > Sudhabindu Ray has been appointed as academic member of School of Nuclear Studies and Application.
- **Rabindra Nath Nandi** has been awarded AICTE Emeritus Fellow.
- ➤ Amit Konar has been appointed as an Associate Editor of the IEEE Trans. on Systems, Man and Cybernetics, Part-A in April, 2010.
- ➤ Amit Konar served as an Editor-in-Chief for the Int.J. of AI and Soft Computing, Inderscience, UK for the year 2010.
- ➤ Amit Konar served as an Editor of Neurocomputing Journal, Elsevier.
- ➤ Amit Konar has been selected as the Liaison Chair for the International Conf. Intelligent Information and Engineering Systems, Kaiserslautern, Germany, Dec. 2010.
- ➤ Amit Konar is a member of the Program Committee of the Int. Conf. on Information Systems to be held in Kolkata, Dec. 2010.
- Anup Kumar Bandhyopadhyaya has been appointed as non-official part time Director on the Board of RAILTEL CORPORATION OF INDIA LTD. for three years or until further orders, whichever is earlier.
- ➤ A. S. Chowdhury has been awarded a Travel Stipend from the IEEE Signal Processing Society (SPS) for presenting a paper in the Seventeenth International Conference on Image Processing (ICIP) at Hong Kong, 2010.
- A. S. Chowdhury has been awarded a Travel Stipend from the International Association for Pattern Recognition (IAPR) for presenting a paper in the Twentieth International Conference on Pattern Recognition (ICPR) at Istanbul, Turkey, 2010.
- ➤ A.S. Chowdhury has been selected as the Program Committee Member in the International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV), Las Vegas, Nevada, USA, July 2010.
- ➤ A.S. Chowdhury has been selected as the Program Committee Member in the International Conference on Computer and Communication Technology (ICCCT), Allahabad, India, September 2010.
- ➤ **Bhaskar Gupta** has been nominated as External Member of Board of Directors for Dedicated Freight Corridor Development Corporation, Govt. of India.
- **Bhaskar Gupta** has advised M/s Turkcell, Republic of Turkey on chip antenna design.
- ➤ **D.R. Poddar** has been awarded AICTE Emeritus Fellow vide grant no. 1-51/RID/EF (04)/2009-10 dated 06.01.2010.
  - ➤ Iti Saha Misra has been elected as a TPC Member: AICT -2010, Greece, ICCC-2010, Allahabad, India.
  - > Iti Saha Misra implemented VoIP over wireless LAN/ OPNET and Qualnet simulators from DST FIST 2007 project at the Dept. of ETCE, JU.

➤ Iti Saha Misra awarded **Young Teacher Career Award**, All India Council for Technical Education (AICTE), India, (**AICTE CAYT**) in the session 2004 – 2007

➣

- ➤ P. Venkateswaran, Secretary, IEEE Communications Society Calcutta Chapter: This Chapter has been selected as a winner for 2010 Communications Society Chapter Achievement Award (CAA) by the IEEE COMSOC HQ.
- ➤ Salil Kumar Sanyal has been selected as the Organizing Committee Member in All India Seminar on "Wireless Networks and Social Development" organized by ET Division of The Institution of Engineers (I), January, 2010.
- Salil Kumar Sanyal has been selected as the International Programme Committee Member in 13<sup>th</sup> IEEE International Conference on Computer and Information Technology (ICCIT 2010), December, 2010 Dhaka, Bangladesh.
- > Salil Kumar Sanyal has been selected as the Organizing Committee Member of the IEEE National Conference on Microwave and Communication, NCMicroCom 2010, at BIET, Suri, February 19-20, 2010.
- > Salil Kumar Sanyal has been selected as the Reviewer of International Journal of Electronics, UK.
- ➤ Iti saha Mishra Obtained best paper award titled "Tamal Chakraborty, Iti Saha Misra and Salil K. Sanyal, "Design and study of VoIP model in cognitive radio network under different simulation platforms," CUBE 2012 International Information Technology Conference and Exhibition, ACM, PUNE, Maharastra, India, 3-5 Sep 2012.
- ➤ Iti saha Mishra was Selected as the Coordinator of IEEE SIGHT (Special Interest Group for Humanitarian Technology), Obtained the fund from IEEE HQ, USA, for doing project on "Low Cost Low Bandwidth Remote Virtual Educational Platform for underserved" and successfully completed the project under SIGHT, attended as an invited delegate of SIGHT IEEE Kolkata Section for the R10 WIE/GOLD/Student Congress on 11-14 July 2013.
- Salil Kumar Sanyal has been elected as the Co-ordinator, Central Selection Committee (Engineering & Technology).
- Salil Kumar Sanyal was given Certificate of APpreciation for 10-Year Membership extended by the Communications Society of IEEE for contributing to the growth of Communications Industry and the Society as a loyal Communications Society Member, January 2010.
- Salil Kumar Sanyal was appreciated by IEEE Calcutta Section for notable services and significant contributions towards the advancement of IEEE and the Engineering Profession, January 2010.
- > Subir Kumar Sarkar has been nominated as Editor-In-Chief of the Journal, International Journal of Nano Electronics, Circuits and Systems
- > Subir Kumar Sarkar has been nominated as Editorial Board Member of the Journal of Engineering, computing & Architecture
- Amit Konar has been appointed as the Editor-in-Chief of IJAISC, 2009.
- > Amit Konar has been appointed as an Editor of Neurocomputing, Elsevier, Journal of Intelligent Decision Technologies, IOS Press, The Netherlands.
- > Bhaskar Gupta's name has been Included in Marquis 2009 Edition of Who's Who in the World.
- ➤ **Bhaskar Gupta** obtained the **Best Paper** award in oral section for the paper "Performance improvement of RF MEMS switch with two movable plates" at *International Conference ICMEMS* 2009 at IIT Madras, Chennai which was received by co-author Sri A. Kundu.
- ➤ **Bhaskar Gupta** acted as **Judge** for the Best Paper award in 4<sup>th</sup> International Conference on Electromagnetic Near Field Characterization and Imaging at Taipei.
- ➤ Iti Saha Misra obtained IEEE ADCOM 2008 best paper award.

- > Salil Kumar Sanyal has been elected as Member of the Technical Committee for the installation of DSA System at Bangur Institute of Neurosciences, Govt. of West Bengal.
- Salil Kumar Sanyal has been elected as Member of the International Program Committee of 12<sup>th</sup> International Conference on Computer and Information Technology (ICCIT 2009) organized by Independent University, Bangladesh and Military Institute of Science & Technology, Bangladesh, December, 2009.
- Subir Kumar Sarkar has been nominated as Editor-In-Chief of the Journal, International Journal of Nano Electronics, Circuits and Systems
- > Subir Kumar Sarkar has been nominated as Editorial Board Member of the Journal of Engineering, computing & Architecture
- > Subir Kumar Sarkar organized 2nd National Conference on Recent Trends in Information Systems (ReTIS-08), February 7-9, 2008, as Organising Secretary, Organised by CMATER, SRUVM project, CSE Department (TEQIP), Jadavpur University, IEEE GOLD Affinity Group, IEEE Calcutta Section and Computer Jagat.

## 7. Awards and Achievements by Students:

- ➤ Prasun Chowdhury (Ph.D student) awarded Young Scientist Award by International Union of Radio Society in Radio and Antenna Days of the Indian Ocean (RADIO) 2014, Mauritius
- Suman Ghosh and Biresh Kr. Joardar (<u>UG student</u>) won the Second Prize in Convolution 2014 13<sup>th</sup> -14<sup>th</sup> February, 14.
- > Ayan Chatterjee, Debayan Das, Bitan Bandopadhyay (<u>UG student</u>) won the First Prize in FORSIT 2014
- ➤ Ritambar Burman, Soumyadeep Chakrabarti, Shaiori Saha, Third Year B.E.Tel. E. students have participated in the Texas Instruments Innovation Challenge India Analog Design Contest TIIC IADC 2014 and submitted a Project Report / Product Design entitled "G-Force Endurance Test by Semg Signal Processing " including a Video demonstration of the Project. This Project was among the 368 Projects from 165 Colleges that were shortlisted for Participation in Phase I of the Contest. Prof. P. Venkatswaran of ETCE Dept. has been the Mentor of this Innovative Project / Product Design.
- > Sayak Bhowal, Aritra Bhaduri, Tirthankar Bagchi, Third year BETCE students of 2012-2013 batch have participated Anveshan 2012 organised by Analog Devices Pvt. Ltd. Under the guidance of Dhrubajyoti Basu, METCE student and submitted a Project titled "Smart Security System". The same has been demonstrated at Analog Device center, Bangalore. Mr. Sayan Chatterjee of ETCE Dept. has been the Mentor of this Innovative Project / Product Design.
- ➤ Priyanka Saha, (M.Tech student), bagged the best paper award on the paper, "Comparative study and analysis of 32 nm FD-SOI/SON and CNFET based 4X4 SRAM cell Array" in International Conference on Circuits, Power and Computing Technologies, 2013, Under the supervision of Prof. Subir Kumar Sarkar. Held at Noorul Islam University, 21-22 March, 2013, Tamilnadu.
- ➤ **Bindita Chaudhuri** (<u>UG student</u>) has been awarded Best Student(Supriya Basu Scholarship) from Faculty of Engineering, Jadavpur University, Kolkata, India.
- ➤ **Tamal Chakraborty** (Phd Student) under the supervision of Prof. Iti Saha Misra, ETCE Department has been awarded Best Paper award for the paper entitled "Design and Study of

- VoIP model in cognitive radio network under different simulation platforms," networks track in CUBE 2012: ACM International IT conference & exhibition, Pune, Maharatra, 2-5 Sep 2012
- ➤ S. Sankaralingam, (Post Doc student) of Prof. Bhaskar Gupta was Awarded Third Prize on the proposal titled "FullyFabric Wearable Antenna for WLAN Applications," at 'Electromagnetic Sensors and Devices Contest' organized by IGCAR, Kalpakkam and IITM, Chennai.
- > Sayantan Dhar (Ph.D Students) awarded second prize to in M.V. Chauhan Student Paper Contest.
- ➤ **Sudipta Maity**, (Ph.D Students) of Prof. Bhaskar Gupta has obtained Best Paper Award in ICMARS 2011, Jodhpur, Rajasthan.
- > Sudipta Maity, (Ph.D Students) obtained Best Student Paper Award in IAW 2011, Kolkata, India.
- LAP Lambert Academic Publishing house has agreed to publish M.Tech Thesis written by **B. Pradhan** in the form of Book. Thesis is guided by Prof. B.Gupta.
- ➤ Sanghmitra De (Dasgupta) (Ph.D. student) was awarded Research Project entitled "Optimal Design of Active Antennas and Arrays for Improved Gain, Bandwidth and Impedance Performance to Be Used in Mobile Computing and Communication" under Women Scientist Scheme, Dept. of Sc. & Technology, and Govt. of India Under the supervision of Prof. Bhaskar Gupta.
- ➤ Avijit Sahana, (M.Tech. Student), SMCC, J.U obtained best paper award in NISS-2010, Chennai, March 2010 on the topic of Implementation of RSA algorithm on sensor network," Under the supervision of Prof. Iti Saha Misra.
- ➤ Anindita Kundu, (M.Tech. Student), SMCC, J.U obtained best paper award in Communication group in NCMicroCom-2010, BIET, Suri, February 19-20. 2010, on the topic of "Study of OPNET and Performance evaluation of WIMAX Network under various terrain conditions in OPNET"," Under the supervision of Prof. Iti Saha Misra.
- ➤ Sudip Kumar Murmu, (MeTelE Student), ETCE, JU, obtained best paper award in Microwave group in NCMicroCom-2010, BIET, Suri, Feb. 19-20, 2010, on the topic of "Dual-band Microstrip Antenna for Wireless Communication"," Under the supervision of Prof. Iti Saha Misra.
- **Bitan Banerjee**, (<u>UG student</u>):
  - 5<sup>th</sup> in 8<sup>th</sup> United Insurance & United Leasing International Masters Chess Championship.
  - 5<sup>th</sup> in 3<sup>rd</sup> Chess for Youth Championship.
  - Achieved 1<sup>st</sup> International Master Norm in 1<sup>st</sup> SCS International Open GM chess Tournament.
  - Achieved 2<sup>nd</sup> International Master Norm in 9<sup>th</sup>United Insurance & United Leasing Grandmasters Chess Championship.
  - Champion in State Junior Chess Championship.
  - 2<sup>nd</sup> in 4<sup>th</sup> Chess for Youth Championship.
  - 11<sup>th</sup> in National Junior Chess Championship.
  - 8<sup>th</sup> in National U-17 Chess Championship.
  - Champion in 5<sup>th</sup> Chess for Youth Championship.
  - Participated in Commonwealth Chess Championship.
  - 4<sup>th</sup> in Chess for Youth Chess Championship.
  - 3<sup>rd</sup> in Mayor's Cup Team Championship.
  - Gold Medallist in National Inter-University Chess Championship.

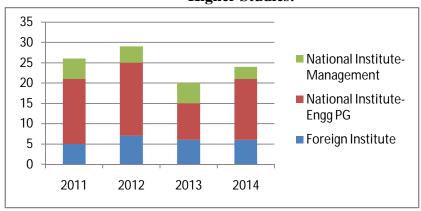
- Achieved 3<sup>rd</sup> and final International Master Norm in National Premier Chess Championship.
- 7<sup>th</sup> in National Challenger's Chess Championship.
- Silver Medallist in National Inter-University Chess Championship.

# 8. Students Progression

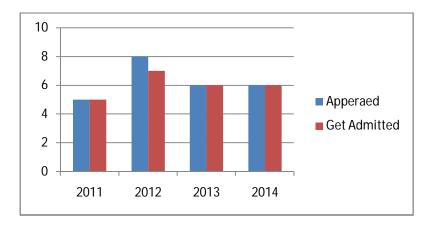
## Student internship through foreign scholarship

- a. DAAD scholarship from Germany: 2-3/year,
- b. MITACS from Canada: 2-3/year

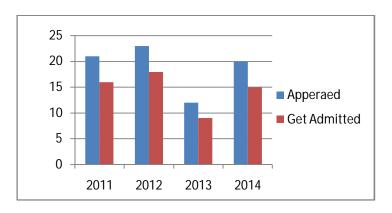




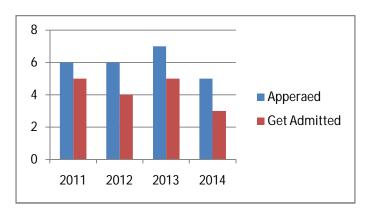
Foreign Institute (through GRE)



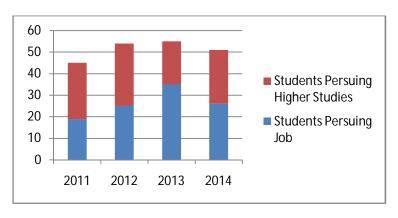
**National Technical Institute (through GATE)** 



**National Management Institute (through CAT)** 

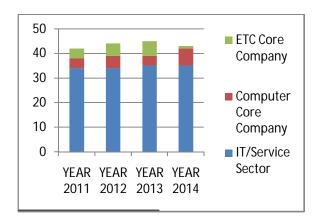


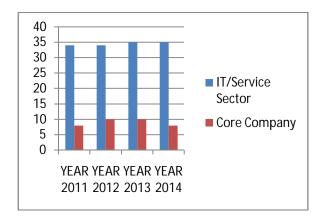
**Student Higher Studies vs Jobs** 



**Student Placements:** 

YEAR		2011	2012	2013	2014
Core Company	ETC	4	5	6	1
	Computer	4	5	4	7
IT/Service		34	34	35	35





The list of company and organizations where our students are placed is given under.

#### **ETCE Core Companies:**

- Cosmic Circuits
- C-DOT
- Sankalp Semiconductor
- DVC
- Atrenta
- Ittiam
- Rancore-Tech

#### **Computer Core Companies:**

- Adobe
- HP
- Citrix
- TCS-R&D
- TCS (EIS)
- Oracle

#### **IT/Service Sector:**

- HCL
- CTS
- Wipro
- IBM
- Deloitte
- PWC
- TCS
- Wipro
- Phillips Electronics
- Schneider Electric
- Ericsson
- Mu Sigma
- Reliance
- Comviva Tech
- Keross FZ-LLC
- Dynamic Digital
- Oracle Finance

- Accenture
- Exl Services
- Nucleus Software
- DDT

#### **Others**

- SAP-LAB
- Goldman Sachs
- CY badge
- Cadence Samsung
- Amazon

### **Student Progression to international universities:**

Wilhelms-Universität Münster, Germany University Of Victoria, Canada

Universität Paderborn, Germany GA Tech, USA

University Of Waterloo, Canada Virginia Tech, USA

Ohio State University National University of Singapore

University of Maryland Arizona State University, USA

Purdue University Rensselaer Polytechnic Institute

University of Southern California Cornell University

University of California, USA Massachusetts Institute of Technology

## **Student Internship of BETCE Third Year Student:**

Each year during semester break on an average 80% of the third year BETCE students before there 7<sup>th</sup> Semester opt for doing internship at either industry, research organizations, even at foreign universities. Every year at least two third year students attend the very prestigious scholarship in Germany, the DAAD. The list is given under.

Wilhelms-Universität Münster, Germany

Universität Paderborn, Germany

University Of Waterloo, Canada University Of Victoria, British Columbia, Canada Nanyang Technological University, Singapore Kansas State University, USA Statistical Institute, Kolkata National University Of Singapore ONGC And South Eastern Railway Variable Energy Cyclotron Centre, Saltlake, Kolkata

Tata Consultancy Service Hewlett Packard Sales India Pvt. Ltd.

IIT KHARAGPUR

IIT Guwahati

Indian Oil Corporation Ltd Durgapur Steel Thermal Power Station, Damodar Valley Corporation

**Ittiam Systems** Bharti Airtel Ltd.

IBM (IBM global remote mentoring program)

## **Department of ETCE**