

DR. SOURISH SANYAL, FIE

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Teaching / Research

PROFESSIONAL SNAPSHOT

- A highly qualified and result oriented professional with more than **15 years'** of experience in the field of **Teaching, Research, Post Graduate Project and Doctoral Guidance etc.**
- Currently associated with **Cooch Behar Government Engineering College, Cooch Behar** as an **Associate Professor and Head of the Department of ECE**. Also a **Fellow Member (F-123355-2) of the Institution of Engineers (India) [FIE]**.
- Deft at providing leadership to junior faculty, research associates, and graduate students.
- Proficient in pursuing, developing and leading research, innovation and impact at an appropriately benchmarked level.
- Experienced in conducting assigned courses/ seminars and providing project guidance at undergraduate and postgraduate level.

PROFESSIONAL COURSES UNDERGONE, Invited Talks, Session Chairing in Conferences

- **QIP Program:** A 2-week short term course on Soft Computing & Applications, under QIP program sponsored by AICTE held in CSE department at Bengal Engineering & Science University, Shibpur, Howrah in 2005.
- **Refresher Course:** The Art and Science of Mechatronics and its Application in Robotics- A 3-weeks' UGC-sponsored refresher course at Academic Staff College, Jadavpur University in 2008.
- **Short Term Course:** 1-week's course on DSP, organized by IEEE (PE chapter) in collaboration with Elect. Engineering Department, Jadavpur University in 2008.
- **2 weeks' programme** at C-DAC on Digital Signal Processing: Speech and Image Processing, June-July, 2013.
- **1 week's FDP** in "Front to back end design of integrated circuits using EDA tools", at the ECE Dept., MCKVIE, Liluah, Howrah, with technical sponsorship of IEEE, Solid State Circuit Society (SSCS), Kolkata chapter, 11-15 July, 2016.
- **Invited talks on Innovation and Application Technology Engineering and Science for a Sustainable Growth (IATESS-15)** held at Visvesvaraya Auditorium, The Institute of Engineers, India, Durgapur Local Centre on 14-15 March, 2015.

CAREER HIGHLIGHTS

July'17 till date	Coochbehar Government Engineering College, Associate Professor
July'15 to July'17	Techno India Salt Lake, Associate Professor
Aug'14 to July'15	Durgapur Institute of Advanced Technology and Management, Associate Professor
Jan'13 to July'14	Academy of Technology, Hooghly, Associate Professor
Jul'02 to Dec'12	College of Engineering & Management, Purba Midnapur

Growth Path:

Jan'13 till Date	Associate Professor
Jul'10 to Dec'12	Assistant Professor
Oct'06 to Jun'10	Senior Lecturer
Jul'02 to Sep'06	Lecturer

Responsibilities:

- Liable for developing and implementing innovative instructional methods.
- Growing professional logistics to improvise student performance. Guiding, leading and mentoring students in research projects.
- Evaluating, monitoring and mentoring student academic progress.
- Creating, innovating and implementing career-enhancement programs and activities.
- Supervising and supporting teaching assistants.
- Serving and supporting functional activities of departmental committees.
- Assessing, reviewing and evaluating student activities and progress.
- Assisting and supporting senior professors in their day-to-day tasks and functions.
- Carried forward many administrative loads in the college.

WORKSHOPS/ SEMINARS/CONFERENCES ATTENDED**Workshop Attended:**

- On Energy Management and Auditing at the School of Energy Studies, Jadavpur University in 2007.
- Mechatronics using LabVIEW, TEQIP, Bengal Engineering & Science University, Howrah in 2009.

Seminars/Conferences Attended:

- 2-day conference on Computer Networking and Multimedia (COMNAM2000), Dept. of ETCE, Jadavpur University in 2000.
- International Conference on Communication, Devices and Intelligent Systems (CODIS 2004 in 2004.
- 12th W.B. State Science and Technology Congress in 2005.
- 14th W.B. State Science and Technology Congress in 2007.
- National Conference on Modern Trends in Electrical Engg.at HETC, Hooghly, in collaboration with the Inst. of Engineering & Technology, UK, Kolkata Chapter in 2009.
- National Conference on Managing in a Global Economy: Challenges and Strategies at the Institute of Business Management (IBM) in 2009.
- International Conference on Recent Advancement in Electrical Science (ICRAES), organized by KSR College of Engineering, Kalvinagar, Tiruchengode in 2010.
- Acharya P C Ray National Young Scientists' Conference, organized by Presidency University and Calcutta University, Kolkata in 2012.
- National Conference on Emerging Technology and Applied Science-2014, at Modern Institute of Engineering, Bandel, in 2014.

ACADEMIA

2012 Ph.D. (Engineering) from Faculty of Engineering and Technology, Jadavpur University

- 2010 MBA (Finance)** from Institute of Business Management, NCE, Jadavpur University with **75.19%, CGPA 8.14.**
- 2002 M.E.Tel.E. (ETCE, Control)** from Faculty of Engineering and Technology, Jadavpur University with **75.4%**
- 2000 B.Tech (ETCE)** from Institute of Engineering & Management, Salt Lake, University of Kalyani with **70.7%**

Project Undertaken at PG-level:

- Coordination of Multi-Agent Mobile Robotics (Using AI and Neural Net) under the guidance of Dr. Amit Konar, Dept. of ETCE, Jadavpur University.

Doctoral Research:

- **Some Studies on Remote Control and Coordination of Mobile Devices**, at Jadavpur University under the guidance of Prof. P.K. Chattopaddhay, Prof. R.N. Chakrabarti and Prof. Ranjit K. Barai of the dept. of Electrical Engineering.

Doctoral Guidance:

- Dr. Raghupati Goswami of Ideal Institute of Technology Completed at CMJ University, Meghalaya.
- Prof. Madhusudan Das of NSHM , ongoing at ISM, Dhanbad, jointly with an eminent professor of ISM [Already registered w.e.f 24.09.2015].

PERSONAL DOSSIER

- Date of Birth:** 25th December 1976
- Address:** C-133, Ramrajatala Station Road, P.O. Santragachi, P.S. Jagacha, Howrah-711104, West Bengal, India
- Languages Known:** English, Hindi and Bengali

REFERENCES

- Prof. Ajoy Roy, Director, IEST, Shibpur, Howrah-711103 Ph. 033-2668-2674, email: vc@becs.ac.in, akroy@ece.iitkgp.ernet.in.
- Prof.(Dr.) Rupendra Nath Chakrabarti, Retd. Professor of Electrical Engineering, Jadavpur University, Ph. No. 2416 8411 (r) , 9339521524(m)., email: rupan_chakrabarti@yahoo.co.in.
- Prof. Pranab Kumar Chattopadhyay, Professor and formerly Head, Dept. of Electrical Engineering, Jadavpur University, Ph 94333 89170 (m), email: pkchattopadhyay47@hotmail.com

For Papers Published and Projects Guided please refer to the Annexure

ANNEXURE

PAPERS PUBLISHED

In National Journals (now Scopus indexed):

- i. Fuzzy-Temporal Extension of Classical Logic and its Stability Analysis, Journal of the Institute of Engineers (India), Vol. 86, IE(I) Journal-ET, January, 2006, pp-50-53.
- ii. Synergism of neural nets and genetic algorithm in path-planning of a mobile robot, Journal of the Institute of Engineers (India), Vol. 87, , IE(I) Journal-CP, May, 2006, pp 32-37.

In International Journals:

- i. Design of Attitude Control System of a Space Satellite, International Journal of Advanced Engineering Technology, Vol. III, Issue II, April-June, 2012, pp 13-16(available online).
- ii. Digital Control of Ambient Temperature in a Space-Ship, International Journal of Emerging Technology and Advanced Engineering, Vol. 2, Issue 5, May- 2012, pp 46-49(available online).
- iii. Design of Compensator for a Hydrofoil Ship, International Journal of Emerging Technology and Advanced Engineering, Vol. 2, Issue 9, September- 2012, pp 266-271(available online).
- iv. Behavior Based Co-ordination of a Troop of Vehicles Targeted to Different Goals in an Unknown Environment on Journal of Automation, Mobile Robotics & Intelligent Systems(JAMRIS), Poland, October'2012, Vol. 6, No. 4, pp-20-27. (Available online at www.jamris.com).
- v. The Motor Cycle and Rider-Modeling and Analysis of the Control System", International Journal of Emerging Technology and Advanced Engineering, Vol. 2, Issue 10, October- 2012, pp-192-196 (available online).
- vi. Stability Improvement in Automobile Driving Through Feedback Loop and Compensator, Research Inveny- International Journal of Engineering and Science, ISSN: 2278-4721, Vol. 1, Issue 10, December, 2012, pp-54-58 (available online).
- vii. Automation in High Speed Rail-Road Transportation, International Journal of Emerging Technology and Advanced Engineering Website: www.ijetae.com (ISSN 2250-2459, ISO 9001:2008 Certified Journal, Volume 3, Issue 2, February 2013)
- viii. Pitch Attitude Control of a Booster Rocket, Research Inveny: International Journal Of Engineering and Science ISSN: 2278-4721, Vol.2, Issue 7 (March 2013), pp 8-12 www.researchinveny.com (indexed by Copernicus)
- ix. Roll Attitude Control of a Space Vehicle, Research Inveny: International Journal Of Engineering and Science, ISSN: 2278-4721, Vol.4, Issue 3 (March 2014), www.researchinveny.com (indexed by Copernicus)
- x. Selection of Advantageous Semiconductor Switches for Energy Efficient Induction Heated Pipe-Line Using High Frequency Full Bridge Inverter, International Journal of Power Electronics and Drives Systems (IJPEDS), Vol. 5, No. 1, July 2014, pp. 112-118 (SCOPUS- indexed): <http://iaesjournal.com/online/index.php/IJPEDS/issue/view/234>.
- xi. New Approach to Verify of the design of High Frequency Induction Heating Equipment on PSIM Platform, International Review of Electrical Engineering (Elsevier Bibliographic Database – SCOPUS), ISSN: 2088-8694A.
- xii. Design and Analysis of EMI and RFI Suppressor for High Frequency Full Bridge Resonant Inverter Fitted Induction Heating Equipment using PSIM (Thomson Reuters Community)

- xiii. Design of Grounding Reactor, Journal of Basic and Applied Research International, 11(4): 262-267, 2015, International Knowledge Press, www.ikpress.org
- xiv. Design of intelligent soft arm control, International Journal of Science, Engineering and Technology Research (IJSETR), Volume 4, Issue 7, July 2015
- xv. An article on flexible A.C. transmission system, International Research Journal of Engineering and Technology, Vol. 3, Issue-5, May, 2016
- xvi. An approach to find node voltages, branch currents and power losses of a single and three phase distribution system, International Journal of Computer Science Trends and Technology (IJCST) – Volume 4, Issue 3, May - Jun 2016.

In Conferences:

At National Level

- i. Design of Angular Control System of a Mobile Robot, 12th W.B. State Science and Technology Congress, 28th February-1st March, 2005.
- ii. Design of a Computer Controlled Stepper Motor Driven Range Finder Using Ultrasonic Sensor, 14th W.B. State Science And Technology Congress, 28th February-1st March, 2007.
- iii. Remote Control and Coordination of AGV- 14th W.B. State Science And Technology Congress, 28th February-1st March, 2007.
- iv. Data Mining as an Advanced Stage of OLAP (On Line Analytical Processing) from a Data Warehouse Perspective- National Conference on Managing in a Global Economy: Challenges and strategies at the Institute of Business Management (IBM), 06-07th March, 2009.
- v. On Line Monitoring and Control of a Robot Arm Joint, National Conference on Modern Trends in Electrical Engineering at HETC, Hooghly, in collaboration with the Inst. of Engineering and Technology, UK, Kolkata Chapter, 11-12 July'09, page MS-6 to MS-11.
- vi. A Review on Remote Control and Coordination of Mobile Devices, Proceedings on Modern Trends in Instrumentation and Control, Calcutta Institute of Engg. & Management (sponsored by DST), 11-12th March, 2010.
- vii. Coordination of Multi Agent System, Proceedings on Acharya P. C. Ray National Young Scientists' Conference organized by Presidency University and Calcutta University, 17-18 February, 2012.
- viii. Compensator Design for Welding an Automobile using Robots, FOSET and CIEM, 2012.
- ix. Nose-wheel steering of short-haul air-craft, National Conference on Emerging Technology and Applied Sciences, Modern Institute of Technology, Bandel, Hooghly, 2014

At International Level

- i. Synergy of Neural Nets and Genetic Algorithm in Planning the Path of a Mobile Robot, International Conference On Communication, Devices And Intelligent Systems (CODIS 2004), 8-10 January, 2004, pp-600-603.
- ii. Compensator Design for Helicopter Stabilization, 2nd International Conference on Computer, Control and Information Technology (C3IT-2012) on 25-26 February, 2012, organized by Academy of Technology and republished in Procedia Technology, Science Direct, Elsevier, July, 2012, page no. 72-81 (available online at www.sciencedirect.com).
- iii. Design of Positioning System of a Tracking Radar Having Embedded Nonlinearities, International Conference on Recent Advancement in Electrical Science (ICRAES), organized by KSR College of Engineering, Kalvinagar, Tiruchengode, Paper code: CS103, 8-9 Jan'10, pp-342-350.
- iv. Design of Control System for Autopilot of an Aeroplane, 2nd International Conference on Foundations & Frontiers in Computer, Communications and Electrical Engineering (C2E2-2015)

commemorating 150 years of Maxwell's Equations, organized by Supreme Knowledge Foundation Group of Institutions (SKFGI) and IEEE AP-MTT Joint Chapter, Kolkata Section, held on 9th and 10th Jan, 2015, paper code c2e22015_submission_31.

- v. Design Optimization of a Single Phase Small Transformer using Genetic Algorithm, at IEEE International Conference on 13/10/15, at Vancouver, Canada.
- vi. Level Adjustment of Hydrfoil sea-craft under wave disturbance[paper ID: MS-17-124] at International Conference on Modelling and Simulations (MS-17) organized by Association for the Advancement of Modelling and Simulation Techniques in Enterprises (A.M.S.E.) held at HHI, Kolkata on 4-5 Nov, 2017.

SIGNIFICANT PROJECTS GUIDED AT PG LEVEL

- I. Implementation of Three Important Image Algorithms on FPGA Hardware and a comparison with its MATLAB Implementation completed in June, 2017 at Techno India Salt Lake (TISL) by a PG student.
- II. completed in June, 2017 at Techno India Salt Lake (TISL) by a PG student.

SIGNIFICANT PROJECTS GUIDED AT UG LEVEL

At UG level:

- Analog Speech Scrambler
- Automatic Water Level Controller
- Bandwidth Measurement of any Tuned Circuit through CRO
- CDMA and GSM Technology
- Criminal Investigation Technique by Finger-Print Method Using Image Analysis.
- Design of Computer-Tunable Active Universal Filter Using State Variable Analysis
- Design of a Computer Controlled Stepper Motor Driven Range Finder Using Ultrasonic Sensor
- Design and Implementation of an Analog Speech Scrambler
- Design of a 7th. order All-Pass Filter
- Design of a Nerve-controlled Prosthetic Arm
- Design of a Unique Water Pump Controller
- EMG-based Prosthetic Arm using EMG signal
- Genetic Algorithm-Based Path Planning of a Mobile Robot
- Instrumentation in the need of Human Body.
- IR obstacle-Detector for Robots
- Laser-torch-based Voice Transmitter and Receiver.
- Microprocessor-Based Speed Control of a D.C. Motor
- Number-guessing Game: An application of the Detector Circuit
- Path Identification by a Mobile Robot
- PC based Wireless Stepper Motor Control
- Simple Water Temperature Indicator
- Solution of MIN-2D H-Range Assignment Problem
- Universal Voltage Regulator varying from 2 V to 18 V

Signature:

Dated: 13.12.2017