



1. **DESIGNATION** Associate Professor, Electrical Engineering Department, Jadavpur University
2. **QUALIFICATION** Ph.D. (Engg.), M.E.E.
3. **HOME PAGE** <http://www.jaduniv.edu.in/htdocs/profile.php?uid=322>
4. **GOOGLE SCHOLAR CITATION PAGE**  
<http://scholar.google.co.in/citations?user=hs1L7A0AAAAJ&hl=en>
5. **All: *h*-index: 21, i10-index: 43, Total Citations: 1762**  
(source: Google Scholar; last accessed: September 17, 2014)  
**Since 2009: *h*-index: 19, i10-index: 40, Total Citations: 1557**  
(source: Google Scholar; last accessed: September 17, 2014)
6. **Cumulative Impact Factor: 140.374**
7. (i) **ADDRESS (residential)** 14D/2D, Naktala Road  
Kolkata, West Bengal, India. PIN – 700 047  
Phone +91 33 2411 5531  
Email ID: cha\_ami@yahoo.co.in  
  
(ii) **ADDRESS (official)** Electrical Engineering Department, Jadavpur University,  
Kolkata, West Bengal, India. PIN – 700 032  
Phone +91 33 2414 6949  
Email ID: achatterjee@ee.jdvu.ac.in
8. **DATE OF BIRTH** December 01, 1968

## 9. ACADEMIC CAREER

Examination/ Degree	University	Year of Passing	Division/ Class	Rank	Percentage of Marks
Bachelor of Electrical Engg.	Jadavpur University, Kolkata, India	1991	1 <sup>st</sup> Class	5th	85.1
Master of Electrical Engg.	Jadavpur University, Kolkata, India	1994	1 <sup>st</sup> Class	3rd	85.8
Ph.D. (Engg.)	Jadavpur University, Kolkata, India	2002			

**10. TEACHING EXPERIENCE** Working in Jadavpur University, Kolkata, India,  
since March, 1997

**11. INDUSTRIAL EXPERIENCE** Almost four years

## 12. RESEARCH INTERESTS

- i)* Fuzzy based Nonlinear Control
- ii)* Intelligent Instrumentation
- iii)* Robot Navigation and Control
- iv)* Computer Vision
- v)* Image Processing and Pattern Recognition
- vi)* Signal Processing
- vii)* Stochastic Optimization

## 13. SUBJECTS TAUGHT/TEACHING

*i) B.E.E. Courses:* Principles of Communication Engineering and Computer Networks, Advanced Instrumentation –II, Electrical Instrumentation, Process Control and Instrumentation, Digital Signal Processing, Reliability Engineering, Electrical Measurements and Measuring Instruments, Digital Techniques in Instrumentation, Electrical Technology

*ii) M.E.E. Courses:* Computer Applications in Instrumentation, Active Circuits and Systems, Electronic Devices and Techniques

## 14. FELLOWSHIPS / HONOURS / AWARDS / PRIZES RECEIVED

- a) The paper entitled “Use of statistical methods for dimensionality reduction in hand shape identification employing Radon transform and collaborative representation based classification”, authored by Oindrila Chatterjee, Ahana Gangopadhyay, and **Amitava Chatterjee**, and presented by Oindrila Chatterjee, won the **BEST PAPER AWARD** during the *2014 International Conference on Electronic Systems, Signal Processing and Computing Technologies (ICESC 2014)*, in the track “Multimedia System and Signal Processing”, held in Nagpur, India, in January, 2014.
- b) Adjudged “Outstanding Associate Editor of IEEE Transactions on Instrumentation and Measurement” in 2013.
- c) Received Certificate of Appreciation from IEEE Vehicular Technology Society, USA, as a “Top 15 Associate Editor” for “outstanding contributions in 2013 to IEEE Transactions on Vehicular Technology”.
- d) Received Certificate of Appreciation from IEEE Vehicular Technology Society, USA, as a “Top Associate Editor” for “outstanding contributions in 2012 to IEEE Transactions on Vehicular Technology”.
- e) Awarded JSPS (Japan Society for the Promotion of Science) Postdoctoral Fellowship in FY 2004-2005 in University of Electro communications, Tokyo, Japan, in the field of “Robotics”. Research tenure - November, 2004 to November, 2005.
- f) Awarded the Japanese Government Scholarship – 2003 (Monbukagakusho) in the field of “Robotics” in Saga University, Japan. Research Tenure - April, 2003 to June, 2003.
- g) Visited University of Paris XII, France, as an Enseignant-Invité (Invited teacher), during March – May, 2004 and May – June, 2009.
- h) Received the best paper presentation award during the *26<sup>th</sup> National Systems Conference (NSC – 2002)* in the area of “Cognitive Systems and Artificial Intelligence”, held in INCOIS, Hyderabad, India in November, 2002.
- i) Received Ganesh Janani Debi Memorial Bronze Medal and Certificate in 1991 for securing maximum marks in Electrical Machines II and III (combined) during BEE curriculum.

## **15. PROFESSIONAL RESPONSIBILITIES:**

- Editor, *IEEE Transactions on Vehicular Technology* (2013 – continuing).

- Associate Editor, *IEEE Transactions on Vehicular Technology* (2011 – 2013).
- Associate Editor, *IEEE Transactions on Instrumentation and Measurement* (2013 – continuing).
- Associate Editor, *IEEE Sensors Journal* (2013 – continuing).
- Editor, *Engineering Applications of Artificial Intelligence* Journal, Elsevier Publishers (2014 – continuing).
- Associate Editor, *Control Engineering Practice* Journal, Elsevier Publishers (2012 – continuing).
- Member, Technical Committee on “Imaging Measurements and Systems”, *IEEE Instrumentation & Measurement Society, USA* (November, 2013 – continuing).
- Guest Editor, Special Issue on “Advances In Evolutionary Optimization Based Image Processing,” *Engineering Applications of Artificial Intelligence* Journal, Elsevier Publishers (Year of Publication: 2014).
- Designated Editor, *Control Engineering Practice* Journal, Elsevier Publishers (2011 – 2012).

## **16. EXTERNAL EXPERT/EXAMINER/MEMBERSHIP IN SELECTION**

### **COMMITTEES:**

- National Commission for Scientific and Technological Research, Government of Chile (CONICYT) – As a *Project Evaluation Expert* for *Evaluation of Scientific Projects* (2014).
- Indian Institute of Technology (Kharagpur, India) – As an *External Examiner* for conducting M.Tech. Project Viva-voce in the Electrical Engineering Department (May, 2014)
- University of Calcutta (Kolkata, India) – As an *External Examiner* for conducting M.Tech. Project Viva-voce in the Department of Applied Physics (May, 2014; December, 2013)
- Birla Institute of Technology (Mesra, India) – As an *External Examiner* for conducting M.E. Project Viva-voce in the Department of Electrical and Electronics Engineering (May, 2014)

- Department of International Relations (DRI), National Commission for Scientific and Technological Research, Government of Chile (CONICYT) – As a *Project Evaluation Expert* for *Evaluation of Scientific Projects* (2013)
- Indian Statistical Institute (Kolkata, India) – As an *External Expert* in *Selection Committees* for recruitment of Project and Research Fellows (April, 2013; October, 2013)
- National Institute of Technology (Silchar, India) – As an *External Examiner* for conducting M. Tech. Project Viva at Electrical Engineering Department (2013)
- RCC Institute of Information Technology (Kolkata, India) – As an *External Expert* in a *Screening Committee* for Recruitment of Faculties (2013)
- Department of Electrical Engineering, Jadavpur University (Kolkata, India) - As a *Member of the Selection Committee* to select Research Fellows under “UGC-BSR Research Fellowship in Science for Meritorious Student” (2011-12)
- STIC-AmSud Program (France - South America) - As a *Project Evaluation Expert* for evaluation of *Scientific Cooperation Projects* between France and South America (2011)
- Damodar Valley Corporation (India) – As a *Technical Expert* in the *Selection Committees/Interview Boards* for the posts of Graduate Engineer Trainee (Control & Instrumentation) (2008)
- Damodar Valley Corporation (India) - As a *Technical Expert* in the *Selection Committees/Interview Boards* for the posts of Junior Engineer Gr-II (Electrical) (2007)

#### **17. PAPERS PUBLISHED / PRESENTED / ACCEPTED FOR PUBLICATION: 126**

International Journal Papers: 78 (**IEEE: 19, Elsevier: 38, IET/IEE: 02, Springer: 04, IOP: 01**)

Edited Book Chapters: 06

International Conference Proceedings Papers: 23

National Journal Papers: 06

National Conference Proceedings Papers: 13

#### **18. LIST OF PUBLICATIONS:**

##### **a. International Journal Papers**

1. Kaushik Das Sharma, **Amitava Chatterjee**, and Anjan Rakshit, “Harmony search algorithm and lyapunov theory based hybrid adaptive fuzzy controller for temperature control of air

heater system with transport-delay,” Accepted for publication in *Applied Soft Computing* (Impact Factor: 2.679), Elsevier Publishers, 2014.

2. Devraj Mandal, **Amitava Chatterjee**, and Madhubanti Maitra, “Robust medical image segmentation using particle swarm optimization aided level set based global fitting energy active contour approach,” *Engineering Applications of Artificial Intelligence* (Impact Factor: 1.962), Elsevier publishers, vol. 35, pp. 199-214, October, 2014.
3. Tapabrata Chakraborti, Kaushik Das Sharma, and **Amitava Chatterjee**, “A novel local extrema based gravitational search algorithm and its application in face recognition using one training image per class,” *Engineering Applications of Artificial Intelligence* (Impact Factor: 1.962), Elsevier publishers, vol. 34, pp. 13-22, September 2014.
4. Tapabrata Chakraborti and **Amitava Chatterjee**, “A novel binary adaptive weight GSA based feature selection for face recognition using local gradient patterns, modified census transform, and local binary patterns,” *Engineering Applications of Artificial Intelligence* (Impact Factor: 1.962), Elsevier publishers, vol. 33, pp. 80-90, August, 2014.
5. **Amitava Chatterjee** and Patrick Siarry, “Advances in evolutionary optimization based image processing,” Guest Editor Editorial, *Engineering Applications of Artificial Intelligence* (Impact Factor: 1.962), Elsevier publishers, vol. 31, pp. 1-2, May 2014. <http://dx.doi.org/10.1016/j.engappai.2014.03.003>
6. Soumi Chakraborty, **Amitava Chatterjee**, and Swapan Kumar Goswami, “A sparse representation based approach for recognition of power system transients,” *Engineering Applications of Artificial Intelligence* (Impact Factor: 1.962), Elsevier publishers, vol. 30, pp. 137-144, April 2014. <http://dx.doi.org/10.1016/j.engappai.2014.01.009>
7. Gautam Sarkar, **Amitava Chatterjee**, Anjan Rakshit, and Kesab Bhattacharya, “Hierarchical extreme learning machine-polynomial based low valued capacitance measurement using frequency synthesizer-vector voltmeter,” *IEEE Transactions on Instrumentation and Measurement* (Impact Factor: 1.710), vol. 63, no. 9, pp. 2180-2187, September 2014.
8. Soumi Chakraborty, **Amitava Chatterjee**, and Swapan Kumar Goswami, “A dual tree complex wavelet transform based approach for recognition of power system transients,” *Expert Systems: The Journal of Knowledge Engineering* (Impact Factor: 0.75), Wiley-Blackwell Publishers, now available online. DOI: 10.1111/exsy.12066

9. Soma Biswas, Swapan Kumar Goswami, and **Amitava Chatterjee**, "Optimal DG placement in shunt capacitor compensated distribution systems considering voltage sag and harmonics distortions," *IET Generation, Transmission & Distribution* (Impact Factor: 1.307), vol. 8, issue 5, pp. 783-797, May 2014. DOI: 10.1049/iet-gtd.2013.0423
10. Kaushik Das Sharma, **Amitava Chatterjee**, and Anjan Rakshit, "Harmony search based hybrid stable adaptive fuzzy tracking controllers for vision based mobile robot navigation," *Machine Vision and Applications* (Impact Factor: 1.444), Springer publishers, vol. 25, issue, 2, pp. 405-419, February 2014. DOI: 10.1007/s00138-013-0515-z
11. Soma Biswas, Swapan Kumar Goswami, and **Amitava Chatterjee**, "A study of the factors influencing the optimal size and site of distributed generations," *Journal of Clean Energy Technologies*, vol. 2, no. 1, pp. 28-33, January 2014. ISSN: 1793-821X, DOI: 10.7763/JOCET
12. Soumyasree Chakraborty, Indrani Bhattacharya, and **Amitava Chatterjee**, "A palmprint based biometric authentication system using dual tree complex wavelet transform," *Measurement* (Impact Factor: 1.526), Elsevier publishers, vol. 46, issue 10, pp. 4179-4188, December 2013.
13. Soma Biswas, **Amitava Chatterjee**, and Swapan Kumar Goswami, "An artificial bee colony-least square algorithm for solving harmonic estimation problems," *Applied Soft Computing* (Impact Factor: 2.679), Elsevier publishers, vol. 13, issue 5, pp. 2343-2355, May 2013.
14. Ankush Chakrabarty, Suvadeep Banerjee, Sayan Maity, and **Amitava Chatterjee**, "Fuzzy model predictive control of non-linear processes using convolution models and foraging algorithms," *Measurement* (Impact Factor: 1.526), Elsevier publishers, vol. 46, issue 4, pp. 1616-1629, May 2013.
15. Ankush Chakrabarty, Harsh Jain, and Amitava Chatterjee, "Volterra kernel based face recognition using artificial bee colony optimization," *Engineering Applications of Artificial Intelligence* (Impact Factor: 1.962), Elsevier publishers, vol. 26, issue 3, pp. 1107-1114, March 2013.
16. Th. Suka Deba Singh and **Amitava Chatterjee**, "MMSE design of nonlinear Volterra equalizers using artificial bee colony algorithm," *Measurement* (Impact Factor: 1.526), Elsevier publishers, vol. 46, issue 1, pp. 210-219, January 2013.

17. Gautam Sarkar, Anjan Rakshit, **Amitava Chatterjee**, and Kesab Bhattacharya, "Low value capacitance measurement system with adjustable lead capacitance compensation," *International Journal of Electrical, Robotics, Electronics and Communications Engineering*, WASET publishers, vol. 7, no. 1, pp. 63-70, 2013.
18. Ilhem Boussaïd, **Amitava Chatterjee**, Patrick Siarry, and Mohamed Ahmed-Nacer, "Biogeography based optimization for constrained optimization problems," *Computers & Operations Research* (Impact Factor: 1.718), Elsevier publishers, vol. 39, issue 12, pp. 3293-3304, December 2012.
19. **Amitava Chatterjee**, Patrick Siarry, Amir Nakib, and Raphael Blanc, "An improved biogeography based optimization approach for segmentation of human head ct-scan images employing fuzzy entropy," *Engineering Applications of Artificial Intelligence* (Impact Factor: 1.962), Elsevier publishers, vol. 25, pp. 1698-1709, December 2012.
20. Anjan Rakshit and **Amitava Chatterjee**, "A microcontroller based compensated optical proximity detector employing switching-mode synchronous detection technique," *Measurement Science and Technology* (Impact Factor: 1.352), IOP Science Publishers, vol. 23, no. 3, March 2012. doi:10.1088/0957-0233/23/3/035102
21. Kaushik Das Sharma, **Amitava Chatterjee**, and Anjan Rakshit, "A PSO-Lyapunov hybrid stable adaptive fuzzy tracking control approach for vision based robot navigation," *IEEE Transactions on Instrumentation and Measurement* (Impact Factor: 1.710), vol. 61, no. 7, pp. 1908-1914, July 2012.
22. Kaushik Das Sharma, **Amitava Chatterjee**, and Anjan Rakshit, "A random spatial lbest PSO-based hybrid strategy for designing adaptive fuzzy controllers for a class of nonlinear systems," *IEEE Transactions on Instrumentation and Measurement* (Impact Factor: 1.710), vol. 61, no. 6, pp. 1605-1612, June 2012.
23. Nalin B. Dev Chowdhury, **Amitava Chatterjee**, and Swapan Kumar Goswami, "A fuzzy membership filtering aided neural network based transmission loss allocation scheme using game theory," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 39, issue 3, pp. 3162-3168, February 2012.
24. Soma Biswas, Swapan Kumar Goswami, and **Amitava Chatterjee**, "Optimum distributed generation placement with voltage sag effect minimization," *Energy Conversion and*



- Management* (Impact Factor: 3.590), Elsevier Publishers, vol. 53, issue 1, pp. 163-174, January 2012.
25. Th. Suka Deba Singh and **Amitava Chatterjee**, "A comparative study of adaptation algorithms for nonlinear system identification based on second order Volterra and bilinear polynomial filters," *Measurement* (Impact Factor: 1.526), Elsevier Publishers, vol. 44, issue 10, pp. 1915-1923, December 2011.
  26. Saibal Dutta, **Amitava Chatterjee**, and Sugata Munshi, "Identification of ECG beats from cross-spectrum information aided learning vector quantization," *Measurement* (Impact Factor: 1.526), Elsevier Publishers, vol. 44, issue 10, pp. 2020-2027, December 2011.
  27. Nandita Sanyal, **Amitava Chatterjee**, and Sugata Munshi, "An adaptive bacterial foraging algorithm for fuzzy entropy based image segmentation," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 38, issue 12, pp. 15489-15498, November-December 2011.
  28. **Amitava Chatterjee**, Gautam Sarkar, and Anjan Rakshit, "A reinforcement learning based fuzzy compensator for a microcontroller based frequency synthesizer-vector voltmeter," *IEEE Transactions on Instrumentation and Measurement* (Impact Factor: 1.710), vol. 60, no. 9, pp. 3120-3127, September 2011.
  29. Ilhem Boussaïd, **Amitava Chatterjee**, Patrick Siarry, and Mohamed Ahmed-Nacer, "Two-stage update biogeography based optimization using differential evolution algorithm (DBBO)," *Computers & Operations Research* (Impact Factor: 1.718), Elsevier Publishers, vol. 38, issue 8, pp. 1188-1198, August 2011.
  30. Avishek Chatterjee, Olive Ray, **Amitava Chatterjee**, and Anjan Rakshit, "Development of a real-life EKF based SLAM system for mobile robots employing vision sensing," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 38, issue 7, pp. 8266-8274, July 2011.
  31. Ilhem Boussaïd, **Amitava Chatterjee**, Patrick Siarry, and Mohamed Ahmed-Nacer, "Hybridizing biogeography-based optimization with differential evolution for optimal power allocation in wireless sensor networks," *IEEE Transactions on Vehicular Technology* (Impact Factor: 2.642), vol. 60, issue 5, pp. 2347-2353, June 2011.
  32. Palash Kumar Kundu, **Amitava Chatterjee**, and Poonam Panchariya, "Electronic tongue system for water sample authentication: a slantlet transform based approach," *IEEE*

*Transactions on Instrumentation and Measurement* (Impact Factor: 1.710), vol. 60, no. 6, pp. 1959-1966, June 2011.

33. **Amitava Chatterjee**, Gautam Sarkar, and Anjan Rakshit, "Neural compensation for a microcontroller based frequency synthesizer-vector voltmeter," *IEEE Sensors Journal* (Impact Factor: 1.852), vol. 11, no. 6, pp. 1427-1428, June 2011.
34. Avishek Chatterjee, N. Nirmal Singh, Olive Ray, **Amitava Chatterjee**, and Anjan Rakshit, "A two-camera based vision system for image feature identification, feature tracking and distance measurement by a mobile robot," *International Journal of Intelligent Defence Support Systems*, Inderscience Publishers, vol. 4, no. 4, pp. 351-367, 2011. ISSN online: 1755-1595, ISSN print: 1755-1587.
35. Suvadeep Banerjee, Ankush Chakrabarty, Sayan Maity, and **Amitava Chatterjee**, "Feedback linearizing indirect adaptive fuzzy control with foraging based on-line plant model estimation," *Applied Soft Computing* (Impact Factor: 2.679), Elsevier Publishers, vol. 11, issue 4, pp. 3441-3450, June 2011.
36. N. Nirmal Singh, Avishek Chatterjee, **Amitava Chatterjee**, and Anjan Rakshit, "A two-layered subgoal based mobile robot navigation algorithm with vision system and IR sensors," *Measurement* (Impact Factor: 1.526), Elsevier Publishers, vol. 44, issue 4, pp. 620-641, May 2011.
37. Akhilesh Chander, **Amitava Chatterjee**, and Patrick Siarry, "A new social and momentum component adaptive PSO algorithm for image segmentation," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 38, issue 5, pp. 4998-5004, May 2011.
38. Susanta Ray, Gautam Sarkar, **Amitava Chatterjee**, and Anjan Rakshit, "Development of a microcontroller based frequency synthesizer cum vector voltmeter," *IEEE Sensors Journal* (Impact Factor: 1.852), vol. 11, no. 4, pp. 1033-1034, April 2011.
39. **Amitava Chatterjee**, Régis Fournier, Amine Naït-Ali, and Patrick Siarry, "A postural information based biometric authentication system employing S-Transform, radial basis function network and extended Kalman filtering," *IEEE Transactions on Instrumentation and Measurement* (Impact Factor: 1.710), vol. 59, issue 12, pp. 3131 – 3138, December 2010.
40. Saibal Dutta, **Amitava Chatterjee**, and Sugata Munshi, "Correlation technique and least square support vector machine combine for frequency-domain based ECG beat classification,"

*Medical Engineering & Physics* (Impact Factor: 1.839), Elsevier Publishers, vol. 32, issue 10, pp. 1161-1169, December 2010.

41. Kaushik Das Sharma, **Amitava Chatterjee**, and Anjan Rakshit, "Design of a hybrid stable adaptive fuzzy controller employing Lyapunov theory and harmony search algorithm," *IEEE Transactions on Control Systems Technology* (Impact Factor: 2.521), vol. 18, no. 6, pp. 1440-1447, November 2010.
42. **Amitava Chatterjee**, Mourad Fakhfakh, and Patrick Siarry, "Design of second-generation current conveyors employing bacterial foraging optimization," *Microelectronics Journal* (Impact Factor: 0.924), Elsevier Publishers, vol. 41, no. 10, pp. 616-626, October 2010.
43. Anjan Rakshit and **Amitava Chatterjee**, "A microcontroller-based IR range finder system with dynamic range enhancement," *IEEE Sensors Journal* (Impact Factor: 1.852), vol. 10, no. 10, pp. 1635-1636, October 2010.
44. **Amitava Chatterjee** and Fumitoshi Matsuno, "A geese PSO tuned fuzzy supervisor for EKF based solutions of simultaneous localization and mapping (SLAM) problems in mobile robots," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 37, issue 8, pp. 5542-5548, August 2010.
45. **Amitava Chatterjee**, "A Fletcher-Reeves conjugate gradient neural network based localization algorithm for wireless sensor networks," *IEEE Transactions on Vehicular Technology* (Impact Factor: 2.642), vol. 59, no. 2, pp. 823-830, February 2010.
46. N. Nirmal Singh, **Amitava Chatterjee**, and Anjan Rakshit, "A PIC microcontroller system for real-life interfacing of external peripherals with a mobile robot," *International Journal of Electronics* (Impact Factor: 0.751), Taylor and Francis Publishers, vol. 97, issue 2, pp. 139-161, 2010.
47. **Amitava Chatterjee**, "Differential evolution tuned fuzzy supervisor adapted extended kalman filtering for SLAM problems in mobile robots," *Robotica* (Impact Factor: 0.894), Cambridge University Press, vol. 27, issue 3, pp. 411-423, May 2009.
48. Saibal Dutta, **Amitava Chatterjee**, and Sugata Munshi, "An automated hierarchical gait pattern identification tool employing cross-correlation-based feature extraction and recurrent neural network based classification," *Expert Systems: The Journal of Knowledge Engineering* (Impact Factor: 0.75), Wiley-Blackwell Publishers, vol. 26, no. 2, pp. 202-217, May 2009.

49. Suryannarayana Chandaka, **Amitava Chatterjee**, and Sugata Munshi, "Support vector machines employing cross-correlation for emotional speech recognition," *Measurement* (Impact Factor: 1.526), Elsevier Publishers, vol. 42, issue 4, pp. 611-618, May 2009.
50. Kaushik Das Sharma, **Amitava Chatterjee**, and Anjan Rakshit, "A hybrid approach for design of stable adaptive fuzzy controllers employing Lyapunov theory and particle swarm optimization," *IEEE Transactions on Fuzzy Systems* (Impact Factor: 6.306), vol. 17, no. 2, pp. 329-342, April 2009.
51. Suryannarayana Chandaka, **Amitava Chatterjee**, and Sugata Munshi, "Cross-correlation aided support vector machine classifier for classification of EEG signals," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 36, issue 2, part 1, pp. 1329-1336, March 2009.
52. **Amitava Chatterjee**, Madhubanti Maitra, and Swapan Kumar Goswami, "Classification of overcurrent and inrush current for power system reliability using Slantlet transform and artificial neural network," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 36, issue 2, part 1, pp. 2391-2399, March 2009.
53. Madhubanti Maitra and **Amitava Chatterjee**, "A novel technique for multilevel optimal magnetic resonance brain image thresholding using bacterial foraging," *Measurement* (Impact Factor: 1.526), Elsevier Publishers, vol. 41, issue 10, pp. 1124-1134, December 2008.
54. **Amitava Chatterjee**, Ranajit Chatterjee, Fumitoshi Matsuno, and Takahiro Endo, "Augmented stable fuzzy control for flexible robotic arm using LMI approach and neuro-fuzzy state space modeling," *IEEE Transactions on Industrial Electronics* (Impact Factor: 6.5), vol. 55, issue 3, pp. 1256-1270, March 2008.
55. Madhubanti Maitra and **Amitava Chatterjee**, "Hybrid multiresolution Slantlet transform and fuzzy *c*-means clustering approach for normal-pathological brain MR image segregation," *Medical Engineering & Physics* (Impact Factor: 1.839), Elsevier Publishers, vol. 30, issue 5, pp. 615-623, June 2008.
56. Madhubanti Maitra and **Amitava Chatterjee**, "A hybrid cooperative-comprehensive learning based PSO algorithm for image segmentation using multilevel thresholding," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 34, issue 2, pp. 1341-1350, February 2008.

57. Madhubanti Maitra and **Amitava Chatterjee**, "Application of AI techniques for locating mobile terminals in mobile wireless cellular networks: A novel paging scheme," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 34, issue 2, pp. 964-976, February 2008.
58. **Amitava Chatterjee** and Patrick Siarry, "A PSO-aided neuro-fuzzy classifier employing linguistic hedge concepts," *Expert Systems with Applications* (Impact Factor: 1.965), Elsevier Publishers, vol. 33, issue 4, pp. 1097-1109, November 2007.
59. **Amitava Chatterjee** and Fumitoshi Matsuno, "A neuro-fuzzy assisted extended Kalman filter-based approach for Simultaneous Localization and Mapping (SLAM) problems," *IEEE Transactions on Fuzzy Systems* (Impact Factor: 6.306), vol. 15, issue 5, pp. 984-997, October 2007.
60. **Amitava Chatterjee**, Ranajit Chatterjee, Fumitoshi Matsuno, and Takahiro Endo, "Neuro-fuzzy state modeling of flexible robotic arm employing dynamically varying cognitive and social component based PSO," *Measurement* (Impact Factor: 1.526), Elsevier Publishers, vol. 40, issue 6, pp. 628-643, July 2007.
61. **Amitava Chatterjee**, Madhubanti Maitra, Anjan Rakshit, and Patrick Siarry, "A new adaptive fuzzy controller with saturation employing influential rule search scheme (IRSS)," *International Journal of Knowledge-Based and Intelligent Engineering Systems*, IOS Press Publishers, vol. 11, no. 1, pp. 47-64, 2007. ISSN-Print: 1327-2314, ISSN-Online: 1875-8827.
62. Mita Dutta, **Amitava Chatterjee**, and Anjan Rakshit, "Intelligent phase correction in automatic digital ac bridges by resilient backpropagation neural network," *Measurement* (Impact Factor: 1.526), Elsevier Publishers, vol. 39, issue 10, pp. 884-891, Dec. 2006.
63. Madhubanti Maitra and **Amitava Chatterjee**, "A Slantlet transform based intelligent system for magnetic resonance brain image classification," *Biomedical Signal Processing and Control* (Impact Factor: 1.532), Elsevier Publishers, vol. 1, issue 4, pp. 299-306, Oct. 2006.
64. **A. Chatterjee** and P. Siarry, "Nonlinear inertia weight variation for dynamic adaptation in particle swarm optimization," *Computers & Operations Research* (Impact Factor: 1.718), Elsevier Publishers, vol. 33, issue 3, pp. 859-871, March 2006.

65. **A. Chatterjee**, A. Rakshit, and P. Siarry, "Generalized influential rule search scheme for fuzzy function approximation," *Soft Computing* (Impact Factor: 1.304), Springer Publishers, vol. 10, no. 8, pp. 631-642, 2006.
66. **A. Chatterjee** and K. Watanabe, "An optimized Takagi-Sugeno type neuro-fuzzy system for modeling robot manipulators," *Neural Computing & Applications* (Impact Factor: 1.763), Springer Publishers, vol. 15, no. 1, pp. 55-61, 2005.
67. **A. Chatterjee**, K. Pulasinghe, K. Watanabe, and K. Izumi, "A particle swarm optimized fuzzy-neural network for voice-controlled robot systems," *IEEE Transactions on Industrial Electronics* (Impact Factor: 6.5), vol. 52, no. 6, pp. 1478-1489, December 2005.
68. **A. Chatterjee**, A. Nait-Ali, and P. Siarry, "An input-delay neural-network based approach for piecewise ECG signal compression," *IEEE Transactions on Biomedical Engineering* (Impact Factor: 2.233), vol. 52, no. 5, pp. 945-947, May 2005.
69. **A. Chatterjee** and K. Watanabe, "An adaptive fuzzy strategy for motion control of robot manipulators," *Soft Computing* (Impact Factor: 1.304), Springer Publishers, vol. 9, no. 3, pp. 185-193, March 2005.
70. **A. Chatterjee** and S. Munshi, "Application of ANN to thermistor based temperature measurement systems," *International Journal of Knowledge-Based and Intelligent Engineering Systems*, IOS Publishers, vol. 9, no. 3, pp. 231-237, 2005. ISSN-Print: 1327-2314, ISSN-Online: 1875-8827.
71. **A. Chatterjee** and A. Rakshit, "Influential rule search scheme (IRSS) – a new fuzzy pattern classifier," *IEEE Transactions on Knowledge and Data Engineering* (Impact Factor: 1.815), vol. 16, no. 8, pp. 881-893, August 2004.
72. S. Bhattacharya, **A. Chatterjee**, and S. Munshi, "A new self-tuned PID-type fuzzy controller as a combination of two-term controllers," *ISA Transactions* (Impact Factor: 2.256), vol. 43, no. 3, pp. 413-426, July 2004.
73. **A. Chatterjee**, A. Rakshit, and T. K. Ghoshal, "An add-on type fuzzy controller for control system retrofit," *International Journal of Knowledge-Based and Intelligent Engineering Systems*, IOS Press Publishers, vol. 8, no. 1, pp. 27-35, April 2004. ISSN-Print: 1327-2314, ISSN-Online: 1875-8827.

74. P. Purkait, **A. Chatterjee**, S. Chakravorti, and K. Bhattacharya, "A translationally adaptive fuzzy classifier for transformer impulse fault classification," *IEE Proceedings – Generation, Transmission and Distribution* (Impact Factor: 1.307), vol. 150, no. 1, pp. 33-40, Jan. 2003.
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76. **A. Chatterjee**, A. Rakshit, and T. K. Ghoshal, "Fuzzy dynamic adaptation in PID control," *International Journal of Knowledge-Based and Intelligent Engineering Systems*, IOS Press Publishers, vol. 7, no. 4, pp. 206-213, October 2003. ISSN-Print: 1327-2314, ISSN-Online: 1875-8827.
77. T. Roy, M. Dutta, and **A. Chatterjee**, "A supervised neural network based approach to linearize cryogenic temperature sensors," *International Journal of Knowledge-Based and Intelligent Engineering Systems*, IOS Press Publishers, vol. 7, no.2, pp. 90-94, April 2003. ISSN-Print: 1327-2314, ISSN-Online: 1875-8827.
78. **A. Chatterjee**, A. Rakshit, and P. K. Mukherjee, "A self organizing fuzzy inference system for electrical field optimization of HV electrode systems," *IEEE Transactions on Dielectrics and Electrical Insulation* (Impact Factor: 1.228), vol. 8, no. 6, pp. 995-1002, December 2001.

## **b. Book Chapters**

1. Devraj Mandal, **Amitava Chatterjee**, and Madhubanti Maitra, "Improved Chan-Vese image segmentation model using Delta-Bar-Delta algorithm," in the book M. K. Kundu et. Al. (Eds.), *Advanced Computing, Networking and Informatics – Volume 1, Smart Innovation Systems and Technologies 27*, pp. 267-274, Springer International Publishing Switzerland 2014. DOI: 10.1007/978-3-319-07353-8\_32

2. Ilhem Boussaïd, **Amitava Chatterjee**, Patrick Siarry, and Mohamed Ahmed-Nacer, “A Comparative Study of Modified BBO Variants and Other Metaheuristics for Optimal Power Allocation in Wireless Sensor Networks,” in the book **Amitava Chatterjee**, Hadi Nobahari, Patrick Siarry (Eds.), *Advances in Heuristic Signal Processing and Applications*, Springer-Verlag Berlin Heidelberg Publishers, pp. 79-110, 2013, DOI: 10.1007/978-3-642-37880-5\_5.
3. Saibal Dutta, **Amitava Chatterjee**, and Sugata Munshi, “Hybrid Correlation-Neural Network Synergy for Gait Signal Classification,” in the book **Amitava Chatterjee**, Hadi Nobahari, Patrick Siarry (Eds.), *Advances in Heuristic Signal Processing and Applications*, Springer-Verlag Berlin Heidelberg Publishers, pp. 263-285, 2013, DOI: 10.1007/978-3-642-37880-5\_12.
4. Ilhem Boussaïd, **Amitava Chatterjee**, Patrick Siarry, and Mohamed Ahmed-Nacer, “Hybrid BBO-DE algorithms for fuzzy entropy-based thresholding,” in the book **Amitava Chatterjee**, Patrick Siarry (Eds.), *Computational Intelligence in Image Processing*, Springer-Verlag Berlin Heidelberg Publishers, pp. 37-69, 2013, DOI: 10.1007/978-3-642-30621-1\_3.
5. Nandita Sanyal, **Amitava Chatterjee**, and Sugata Munshi, “Modified bacterial foraging optimization technique for vector quantization-based image compression,” in the book **Amitava Chatterjee**, Patrick Siarry (Eds.), *Computational Intelligence in Image Processing*, Springer-Verlag Berlin Heidelberg Publishers, pp. 131-152, 2013, DOI: 10.1007/978-3-642-30621-1\_7.
6. **Amitava Chatterjee**, Amine Naït-Ali, and Patrick Siarry, “Neural network approaches for EEG classification,” in the book A. Naït-Ali (Ed.), *Advanced Biosignal Processing*, Springer-Verlag Berlin Heidelberg Publishers, 2009, DOI: 10.1007/978-3-540-89506-0\_8.

### c. International Conference Proceedings Papers

1. **Amitava Chatterjee**, “Palm dorsa vein pattern based biometric security system using thermal imaging,” *Proc. International Conference on Control, Instrumentation, Energy and Communication (CIEC14)*, Kolkata, India, pp. 22-24, January 31 - February 02, 2014. ISBN:978-1-4799-2043-3 (*Invited Paper*)
2. Sandip Joardar and **Amitava Chatterjee**, “Collaborative representation based face recognition using a hybrid similarity measure with single training sample per person,” *Proc. International Conference on Control, Instrumentation, Energy and Communication (CIEC14)*, Kolkata, India, pp. 706-710, January 31 - February 02, 2014.



3. Prarthana Bhattacharyya, Aritra Mitra, and **Amitava Chatterjee**, “Vector quantization based image compression using generalized improved fuzzy clustering,” *Proc. International Conference on Control, Instrumentation, Energy and Communication (CIEC14)*, Kolkata, India, pp. 737-741, January 31 - February 02, 2014.
4. Nandita Sanyal, **Amitava Chatterjee**, and Sugata Munshi, “Bacterial foraging optimization algorithm with varying population for entropy maximization based image segmentation,” *Proc. International Conference on Control, Instrumentation, Energy and Communication (CIEC14)*, Kolkata, India, pp. 716-720, January 31 - February 02, 2014.
5. Soma Biswas, **Amitava Chatterjee**, and Swapan Kumar Goswami, “An artificial bee colony based optimal placement and sizing of distributed generation,” *Proc. International Conference on Control, Instrumentation, Energy and Communication (CIEC14)*, Kolkata, India, pp. 411-415, January 31 - February 02, 2014.
6. Oindrila Chatterjee, Ahana Gangopadhyay, and **Amitava Chatterjee**, “Use of statistical methods for dimensionality reduction in hand shape identification employing Radon transform and collaborative representation based classification”, *Proc. 2014 International Conference on Electronic Systems, Signal Processing and Computing Technologies (ICESC 2014)*, pp. 305-310, Nagpur, India, January 9-11, 2014.
7. Ahana Gangopadhyay, Oindrila Chatterjee, and **Amitava Chatterjee**, “Hand shape based biometric authentication system using radon transform and collaborative representation based classification,” *Proc. 2013 IEEE Second International Conference on Image Information Processing (ICIIP – 2013)*, pp. 635-639, Simla, India, December 9-11, 2013.
8. Kaushik Das Sharma, Patrick Siarry, **Amitava Chatterjee**, and Anjan Rakshit, “Nonlinear parameter variation of HS algorithm for designing stable adaptive fuzzy controllers,” *Proc. 11<sup>th</sup> Biennial International Conference on Artificial Evolution (EA-2013)*, pp. 148-160, Bordeaux, France, October 21-23, 2013.
9. Romesh Laishram, Thokchom Suka Deba Singh, and **Amitava Chatterjee**, “Volterra filter based non linear system identification using swarm intelligence,” *Proc. 2011 IEEE International Conference on Computational Intelligence and Computing Research (IEEE ICCIC 2011)*, pp. 423-427, Kanyakumari, India, December 15-18, 2011.
10. Ilhem Boussaïd, **Amitava Chatterjee**, Patrick Siarry, and Mohamed Ahmed-Nacer, “Bi-population biogeography based optimization hybridized with differential evolution,” *Proc.*

*International Conference on Metaheuristics and Nature Inspired Computing*, Djerba Island, Tunisia, October 27-31, 2010.

11. Kaushik Das Sharma, **Amitava Chatterjee**, and Fumitoshi Matsuno, “A Lyapunov theory and stochastic optimization based stable adaptive fuzzy control methodology,” *Proc. SICE Annual Conference 2008, International Conference on Instrumentation, Control, and Information Technology*, pp. 1839-1844, Tokyo, Japan, August 20-22, 2008.

12. Madhubanti Maitra, **Amitava Chatterjee**, and Fumitoshi Matsuno, “A novel scheme for feature extraction and classification of magnetic resonance brain images based on slantlet transform and support vector machine,” *Proc. SICE Annual Conference 2008, International Conference on Instrumentation, Control, and Information Technology*, pp. 1130-1134, Tokyo, Japan, August 20-22, 2008.

13. **Amitava Chatterjee**, Mita Dutta, and Anjan Rakshit, “An intelligent method of impedance measurement employing PSO-aided neuro fuzzy system with LMS algorithm,” *Proc. IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2007)*, London, UK, 23-26 July 2007.

14. Saibal Dutta, **Amitava Chatterjee**, and Sugata Munshi, “A statistical feature extraction strategy for segregation of clinical gait signals,” *Proc. International Conference on “Emerging trends in Electrical Engineering”*, Kolkata, India, January 12-14, 2007.

15. Nandita Sanyal, **Amitava Chatterjee**, and Sugata Munshi, “A cascade model of wavelet filters and neural networks for diagnosis of epilepsy using EEG signals,” *Proc. International Conference on “Emerging trends in Electrical Engineering”*, Kolkata, India, January 12-14, 2007.

16. Surajit Panja, **Madhubanti Maitra**, and Amitava Chatterjee, “Image segmentation using multilevel thresholding based on particle swarm optimization,” *Proc. International Conference on “Emerging trends in Electrical Engineering”*, Kolkata, India, January 12-14, 2007.

17. **Amitava Chatterjee** and Fumitoshi Matsuno, “Improving EKF-based solutions for SLAM problems in mobile robots employing neuro-fuzzy supervision,” *Proc. 3<sup>rd</sup> IEEE Conference on Intelligent Systems (IEEE-IS’06)*, London, UK, Sep. 04 – 06, 2006.

18. **Amitava Chatterjee** and Fumitoshi Matsuno, “Bacterial foraging techniques for solving EKF-based SLAM problems,” *Proc. International Control Conference (Control 2006)*, Glasgow, UK, Aug. 30- Sep. 01, 2006.

19. **Amitava Chatterjee**, Ranajit Chatterjee, Fumitoshi Matsuno, and Takahiro Endo, "A stable state-feedback fuzzy controller employing linear matrix inequalities for flexible link robotic arm," *Proc. 3<sup>rd</sup> IEEE International Conference in Industrial Informatics (INDIN2005)*, Perth, Australia, 10-12 August, 2005.
20. Mita Dutta, **Amitava Chatterjee**, and Anjan Rakshit, "A resilient backpropagation neural network based phase correction system for automatic digital ac bridges," *Proc. IEEE Conference on Precision Electromagnetic Measurements, CPEM 2004*, London, UK, June-July, 2004.
21. K. Watanabe, **A. Chatterjee**, K. Pulasinghe, K. Izumi, and K. Kiguchi, "A fuzzy-neural network based human machine interface for voice-controlled robots trained by a particle swarm optimization," *Proc. 4<sup>th</sup> International Symposium on Advanced Intelligent Systems (ISIS 2003)*, pp. 411-414, Cheju National University, Jeju Island, Korea, September 2003.
22. K. Watanabe, **A. Chatterjee**, K. Pulasinghe, S-H. Jin, K. Izumi, and K. Kiguchi, "Training of fuzzy-neural network for voice-controlled robot systems by a particle swarm optimization," *Proc. 2003 International Conference on Control, Automation, and Systems, ICCAS 2003*, pp. 115-1120, Gyeongju, Korea, October 2003.
23. **A. Chatterjee**, S. Munshi, M. Dutta, and A. Rakshit, "An artificial neural linearizer for capacitive humidity sensor," *Proc. 17<sup>th</sup> IEEE Instrumentation and Measurement Technology Conference (IMTC 2000)*, Baltimore, USA, May, 2000.

**d. National Journal Papers**

1. **A. Chatterjee**, S. Munshi and A. Rakshit, "ANN based linearizing technique for constant temperature anemometer system", *Journal of the Instrument Society of India*, vol. 30, no. 2, pp. 109-114, 2000.
2. **A. Chatterjee**, S. Munshi and A. Rakshit, "A knowledge based system to guide the measurement of electrical circuit parameters", *Journal of the Institution of Engineers (India), Electronics (ET) division*, vol. 79, pp. 21-24, September 1998.
3. **A. Chatterjee**, A. Rakshit and T. K. Ghoshal, "A supervisory fuzzy control approach for marine diesel engines," *Paritantra (Journal of Systems society of India)*, vol. 8, no. 1, pp. 26-32, August 2003.

4. **A. Chatterjee** and A. Rakshit, "Design of a hybrid radial basis neural controller plus conventional integral controller with saturation", *Journal of the Institution of Engineers (India), Electrical (EL) division*, vol. 84, March 2004.
5. S. Bhattacharya, S. Munshi and **A. Chatterjee**, "Dynamic adaptation of Dahlin controller employing a combination of fuzzy logic and heuristic techniques," *Journal of the Institution of Engineers (India), Electronics (ET) division*, vol. 85, pp. 60-64, January 2005.
6. K. R. Joyson, **A. Chatterjee**, and S. Munshi, "A heuristic based mismatch introduction in Smith predictors," *Journal of the Institution of Engineers (India), Electronics (ET) division*, vol. 86, pp. 37-43, January 2006.

**e. National Conference Proceedings Papers**

1. S. Saha, M. Dutta and **A. Chatterjee**, "Development of a knowledge based system for measurement of pressure", Conference on Computer Networking and Multimedia, Jadavpur University, Calcutta, India, December 2000.
2. **A. Chatterjee** and A. Rakshit, "Low cost smart interface with network facility for traditional sensors and actuators", seventh State Science and Technology Congress, Jadavpur University, Calcutta, India, February 2000.
3. **A. Chatterjee**, S. Munshi and A. Rakshit, "ANN based linearizing technique for constant temperature anemometer system", National Symposium on Instrumentation (NSI-24), Goa University, Goa, India, February 2000.
4. **A. Chatterjee** and S. Munshi, "Application of ANN to thermistor based temperature measurement systems", *Proceedings of 28<sup>th</sup> Annual Convention and Exhibition of IEEE India Council (IEEE ACE 2002)*, Science City, Calcutta, India, December 2002.
5. **A. Chatterjee**, A. Rakshit and T. K. Ghoshal, "Fuzzy gain scheduling for improved PID control", *Proceedings of 26<sup>th</sup> National Systems Conference (NSC 2002)*, Hyderabad, India, November 2002.
6. S. Bhattacharya, **A. Chatterjee** and S. Munshi, "Fuzzy (P+I+D) control in tracking temporal input variations," *Proc. All India Seminar on Integrated Operation of Power System, Institution of Engineers (India)*, Kolkata, September 2003.

7. **Amitava Chatterjee**, “Study on Effect of Varying Chemotaxis Parameters of Bacterial Foraging Strategy for Fuzzy Adapted EKF Algorithm in SLAM Problems for Mobile Robots,” *Proc. First National Conference on Emerging Trends and Recent Advances in Electrical Engineering and Renewable Energy (NCEEERE 2008)*, Sikkim, India, 22-24 December 2008, S.M.I.T. ISBN: 81-902768-9-1
8. N. Nirmal Singh, **Amitava Chatterjee**, and Anjan Rakshit, “Development of a GUI-based system for interrupt-driven serial communication between a Mobile Robot and an RTU,” *Proc. National Conference on Nanotechnology and its Application in Quantum Computing (NAQC-2008)*, Kolkata, India, September 22 -24, 2008.
9. K. Das Sharma, **A. Chatterjee**, and A. Rakshit, “System identification using particle swarm optimization algorithm,” *Proc. National Conference on Modern Trends in Electrical Engineering (NCMTEE-2009)*, pp-CS-9-11, Hooghly, India, July, 2009.
10. K. Das Sharma, **A. Chatterjee**, and A. Rakshit, “Adaptive fuzzy controller design employing harmony search algorithm for a class of non-linear system,” in *Proc. Of National Conf. on Instrumentation & Control*, Kolkata, India, pp-42-45, January, 2011.
11. Nandita Sanyal, **Amitava Chatterjee**, and Sugata Munshi, “Application of adaptive bacterial foraging optimization algorithm for image segmentation,” *Proc. National Conference on Electrical, Electronics and Computer Engineering (CALCON – 2011)*, Kolkata, India, November 4-5, 2011.
12. Saibal Dutta, **Amitava Chatterjee**, and Sugata Munshi, “Comparison between auto-correlation and cross-correlation based feature extraction methodologies for the classification of clinical gait signals,” *Proc. National Conference on Electrical, Electronics and Computer Engineering (CALCON – 2011)*, Kolkata, India, November 4-5, 2011.
13. Nandita Sanyal, **Amitava Chatterjee**, and Sugata Munshi, “Tuning of parameters of BFOA with varying population in entropy maximization based image segmentation,” *Proc. National Conference of Recent Trends in Power Engineering (NCRTPE-2014)*, Kolkata, India, March 13-14, 2014.

## 19. BOOKS AUTHORED/EDITED

Sl.	Book Title	Publisher	Year of
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No.			Publication
1.	Amitava Chatterjee and Patrick Siarry (Eds.), <i>Computational Intelligence in Image Processing</i> , ISBN: 978-3-642-30620-4 (Print) 978-3-642-30621-1 (Online)	Springer-Verlag GmbH Heidelberg, Germany, Publishers	2013
2.	Amitava Chatterjee, Anjan Rakshit, and N. Nirmal Singh, <i>Vision Based Autonomous Robot Navigation: Algorithms And Implementations</i> , ISBN: 978-3-642-33964-6 (Print) 978-3-642-33965-3 (Online)	Springer-Verlag GmbH Heidelberg, Germany, Publishers	2013
3.	Amitava Chatterjee, Hadi Nobahari, and Patrick Siarry (Eds.), <i>Advances in Heuristic Signal Processing and Applications</i> , ISBN: 978-3-642-37879-9 (Print) 978-3-642-37880-5 (Online)	Springer-Verlag GmbH Heidelberg, Germany, Publishers	2013
4.	Sugata Munshi, Mita Dutta, and Amitava Chatterjee, <i>Study Material for the subject "Measurements and Control (EL 406)" for The Institution of Engineers (India)</i>		In Press

## 20. SPONSORED PROJECTS UNDERTAKEN

Sl. No.	Name of the Project	Sponsor	Worked / working as	Project Duration and Value
1.	"Devices and Systems" subgroup under University with Potential for Excellence (UPE) – Phase II Programme, Jadavpur University, Kolkata, India	UGC, India	<ul style="list-style-type: none"> <li>Joint-Coordinator, (April, 2012 – March, 2013)</li> <li>Member-Investigator, (April, 2013 – March, 2014)</li> </ul>	April, 2012 – March, 2014 (Project value: Rs. 87,50,000/-)

2.	Solving Simultaneous Localization and Mapping Problems of Mobile Robots by Adaptive Extended Kalman Filtering	AICTE, India	Principal Investigator	April, 2007- April, 2009 (Project value: Rs. 8,23,000/-)
3.	Vision Based Autonomous Navigation of Mobile Robots	UGC, India	Principal Investigator	April, 2007- March, 2010 (Project value: Rs. 10,67,600/- + Rs. 54,890/- = Rs. 11,22,490/-)

## 21. SESSIONS CHAIRED

Sl. No.	Conference/Symposium Details	Organizers/Sponsors	Title Of The Session/Track	Venue and Date
1.	International Conference on “Control, Instrumentation, Energy & Communication” (CIEC14)	Dept of Applied Physics, University of Calcutta	Computational Techniques & Expert Systems	Kolkata, India, January 31, 2014
2.	International Conference on “Control, Instrumentation, Energy & Communication” (CIEC14)	Dept of Applied Physics, University of Calcutta	Power & Energy	Kolkata, India, February 01, 2014
3.	IEEE First International Conference on “Condition Assessment Techniques in Electrical Systems” (IEEE CATCON 2013)	IEEE DEIS Kolkata Chapter and IEEE Dielectrics and Electrical Insulation Society (DEIS), USA		Kolkata, India, December 07, 2013
4.	Second Michael Faraday IET India Summit (MFIIS 2013)	IET, Kolkata Network, India	Computational Techniques	Kolkata, India, November 17, 2013
5.	<b>SICE Annual Conference 2008: International Conference on</b>	<b>SICE, Japan</b>	<b>Optimal Control and Particle Swarm Optimization</b>	<b>Tokyo, Japan, August 21, 2008</b>

	<b>Instrumentation, Control, and Information Technology</b>			
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## 22. INVITED LECTURES DELIVERED

Sl. No.	Title of the Lecture	Program	Venue and Time
1.	Neuro-Fuzzy Controllers in Power Plant Applications	ASC Program of Power Plant Engineering Department, Jadavpur University, on “Recent Advances in Power Plants and Energy Systems”	Jadavpur University, Power Engineering Department, Kolkata, 2001
2.	Neuro-Fuzzy Controllers in Power Plant Applications	ASC Program of Power Plant Engineering Department, Jadavpur University, on “Recent Advances in Power Engineering”	Jadavpur University, Power Engineering Department, Kolkata, June, 2002
3.	Fuzzy Systems	Course on “Advanced Computing Techniques in Electrical Engineering,” organized by IEEE Power Engineering Chapter, Kolkata, and Jadavpur University, Electrical Engineering Department	Jadavpur University, Electrical Engineering Department, Kolkata, 04 July, 2006.
4.	Computational Intelligence Based Approaches for Load Forecasting	Course on “Power System Operation,” for CESC Limited, Kolkata, organized by CII TDB TNET, Jadavpur University	Jadavpur University, Electrical Engineering Department, June, 2007.
5.	A series of lectures on: <ul style="list-style-type: none"> <li>• DFT and FFT</li> <li>• FIR Filters</li> <li>• Wiener Filtering Theory</li> <li>• Adaptive Digital Filters</li> </ul>	Course on “Digital Signal Processing” (DSP-2008) organized by IEEE Power Engineering Chapter, Calcutta Section, and Jadavpur University, Electrical Engineering Department	Jadavpur University, Electrical Engineering Department, July, 2008.



6.	<b>Fuzzy Supervision for Extended Kalman Filtering based SLAM Algorithms in Mobile Robotics</b>	<b>Invited Lecture Program at Laboratoire Images, Signaux &amp; Systèmes Intelligents (LISSI), University of Paris 12, France</b>	<b>LISSI Lab, University of Paris 12, Val De Marne, France, May, 2009.</b>
7.	Fuzzy Systems and Fuzzy Control: An Introduction	Course on “Advanced Computing Techniques in Engineering” Organized under TEQIP, funded by World Bank	Netaji Subhash Engineering College, Kolkata, India, March, 2009.
8.	Variable Structure Control in Power System Applications	AICTE sponsored course on “Electric Power – Quality and Control”	Netaji Subhash Engineering College, Kolkata, India, February, 2010.
9.	Final Control Element in Process Instrumentation Systems	Seminar on “Modern Trends in Instrumentation and Control” (MTIC10)	Calcutta Institute of Engineering and Management, Kolkata, India, March, 2010.
10.	Fuzzy Control and Its Variants: An Overview	Short Term Training Programme on “Fuzzy Logic: A Tool for Intelligent Approach”	National Institute of Technical Teachers’ Training & Research, Kolkata, India, September, 2010.
11.	Image Enhancement and Segmentation: Algorithms and Applications	UGC Sponsored JU-ASC Refresher Course on “Control Engg. And Information Technology in Mechatronics: Roles Played and Future Potentials”	Jadavpur University, Electrical Engg. Deptt., Kolkata, India, July, 2011.
12.	Vision Based Autonomous Robot Navigation	National Conference on “Energy System Planning, Implementation and Operation” (ESPIO-2011)	JIS College of Engineering, Electrical Engg. Deptt., Kalyani, West Bengal, India, August, 2011.
13.	Vision Based Autonomous Robot Navigation	National Conference on “Control, Sensor, Transducer and Signal Processing” (CSTS-2012)	B.P. Poddar Institute of Management & Technology, Kolkata, India, April, 2012.

14.	Autonomous Navigation of Mobile Robots using Computer Vision	One day Seminar on “Machine Intelligence & Computer Vision in Modern Day Engineering”	Seacom Engineering College, India, 20 August, 2013.
15.	MATLAB® Fundamentals: An Overview	ASC Program of Burdwan University, India: Short Term Course on “Computational Tools and Open Source Software”	Burdwan University, India, 02 September, 2013.
16.	Vision Based Robot Navigation: Conventional and Fuzzy Perspectives	Academic Staff College, University of Calcutta organized Refresher Course in Information Technology (Thrust Area: Algorithms, Networks and Computer Vision)	University of Calcutta, India, 04 January, 2014.
17.	Palm Dorsa Vein Pattern Based Biometric Security System using Thermal Imaging	International Conference on “Control, Instrumentation, Energy & Communication” (CIEC14)	University of Calcutta, India, 31 January, 2014.
18.	Collaborative Representation based Biometrics using Palm Dorsa Vein Patterns	IEEE Computational Intelligence Society, Kolkata Chapter Lecture	Jadavpur University, Amitava Dey Memorial Hall, Kolkata, India, 10 March, 2014
19.	Fuzzy Logic based Robot Navigation using Vision Sensing	Faculty Development Program on "Engineering Application of Computational Intelligence" organized by RCC Institute of Information Technology, Kolkata, India, and IEEE Computational Intelligence Society, Kolkata Chapter	Electronics and Communication Engineering Department, RCC Institute of Information Technology, Kolkata, India, 11 April, 2014
20.	Autonomous Navigation of Mobile Robots using Computer Vision	11 <sup>th</sup> Prof. J. K. Chowdhury Memorial Lecture organized by Institution of Engineers (India)	Sri. R N Mookerjee Hall, Institution of Engineers (India), Kolkata, 15 May, 2014
21.	Computer Vision Based Robot Navigation	All India Seminar on “Emerging Technology to Meet the Global Challenges” organized by Institution of	23 August, 2014, Kolkata, India.

		Engineers (India)	
22.	Bacterial Foraging Optimization: Theory and Applications	National Workshop on “Advanced Algorithm and Optimization” (AAO-2014) organized by Department of Mathematics, National Institute of Technology, Durgapur, India.	18 September, 2014, National Institute of Technology, Durgapur, India.

### 23. Ph.D./M.E. THESES GUIDANCE

#### Ph.D. Theses

Sl. No.	Title	Year	Candidate	Status
1.	Vision based autonomous navigation of mobile robots <i>(joint supervisor: Prof. Anjan Rakshit)</i>	2010	N. Nirmal Singh	Complete
2.	Development of Correlation based Algorithms for Bioelectric Signal Classification <i>(joint supervisor: Prof. Sugata Munshi)</i>	2012	Saibal Dutta	Complete
3.	Hybrid Methodologies for Stable Adaptive Fuzzy Control <i>(joint supervisor: Prof. Anjan Rakshit)</i>	2012	Kaushik Das Sharma	Complete
4.	Development of Bacterial Foraging Optimization Algorithms for Image Processing Applications <i>(joint supervisor: Prof. Sugata Munshi)</i>	Registered in 2009	Nandita Sanyal	Ongoing
5.	Power Quality Issue Aided Optimal Placement of Distributed Generations <i>(joint supervisor: Prof. Swapan Kr. Goswami)</i>	Registered in 2011	Soma Santra (Biswas)	Ongoing
6.	Robust Fuzzy Control Strategies Employing Metaheuristic Optimization Techniques <i>(joint supervisor: Prof. Anjan Rakshit)</i>	Registered in 2012	Dibyendu Pal	Ongoing

7.	Intelligent Recognition of Power Quality Events and Their Sources ( <i>joint supervisor: Prof. Swapan Kr. Goswami</i> )	Registered in 2012	Soumi Chakraborty	Ongoing
8.	Development of Low Valued Capacitance Measurement Systems and Their Applications for Dielectric and Insulation Characterization ( <i>joint supervisor: Retd. Prof. Anjan Rakshit and Prof. Kesab Bhattacharya</i> )	Registered in 2010	Gautam Sarkar	Ongoing

### M.E.E. Theses

Sl. No.	Title	Year	Candidate
1.	Biometric security systems using far and near infrared imaging of palm dorsal vein pattern	2014	Sandip Joardar
2.	Robust and fast algorithm for active contour based image segmentation using level sets ( <i>joint supervisor: Dr. Madhubanti Maitra</i> )	2014	Devraj Mandal
3.	Feature selection for face recognition and emotion recognition problems using gravitational search algorithms	2013	Tapabrata Chakraborti
4.	Fuzzy based energy efficient clustering protocols for wireless sensor networks ( <i>joint supervisor: Dr. Madhubanti Maitra</i> )	2012	Anirban Sarkar
5.	Optimal and adaptive Volterra and bilinear filters for system identification and channel equalization problems	2011	Th. Suka Deba Singh
6.	Vector quantization algorithms for image compression problems ( <i>joint supervisor: Prof. Anjan Rakshit</i> )	2010	Sunita Swarnamayee Biswal
7.	Development of bacterial foraging based optimal fuzzy control algorithms ( <i>joint supervisor: Prof. Anjan Rakshit</i> )	2010	Suresh Kumar Saha
8.	Robust watershed image segmentation employing wavelet transform	2007	Venkata Koteswararao K
9.	Cross-correlation aided support vector machine classifiers for EEG and emotional speech signals ( <i>joint supervisor: Prof. Sugata Munshi</i> )	2007	Suryannarayana Chandaka
10.	Investigations in tuning philosophy for Smith Predictor based control systems ( <i>joint supervisor: Prof. Sugata Munshi</i> )	2003	K. R. Joyson

11.	Development of various fuzzy control algorithms ( <i>joint supervisor: Prof. Sugata Munshi</i> )	2002	Satyajit Bhattacharya
12.	Development of an integrated fuzzy system environment ( <i>joint supervisor: Prof. Anjan Rakshit</i> )	2000	Abhilash Mukherjee
13.	Development of a low-cost information network ( <i>joint supervisor: Prof. Anjan Rakshit</i> )	2000	Biswajit Majumder
14.	Effect of inter-turn capacitance of ratio windings on the performance of current comparator based capacitance bridge ( <i>joint supervisor: Prof. Sugata Munshi</i> )	1999	Sunil S. Rao
15.	Road traffic control system using programmable logic controller ( <i>joint supervisor: Prof. Shyamal Kr. Ghosh</i> )	1998	Indrani Basu
16.	Development of knowledge based system for measurement of temperature and pressure ( <i>joint supervisor: Prof. Mita Dutta</i> )	1998	Swapna Saha

#### 24(a). INVOLVEMENT IN CONFERENCE ORGANIZATION ACTIVITIES

Sl. No.	Conference/Symposium Details	Organizers/Sponsors	Served/Serving As	Venue and Date
1.	10th IEEE Conference on Industrial Electronics and Applications (ICIEA 2014)	IEEE Industrial Electronics (IE) Chapter, Singapore Section, and Auckland University, University of Canterbury, and Massey University, New Zealand	<b>Track Chair, "Control and Systems" track</b>	Auckland, New Zealand, June 15-17, 2015
2.	7th International Conference on Computer Supported Education (CSEDU 2015)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Lisbon, Portugal, May 21-23, 2015
3.	2 <sup>nd</sup> International Conference of Control, Dynamic Systems, and Robotics (CDSR 2015)	International Academy of Science, Engineering, and Technology	Member, Scientific Committee	Ottawa, Canada, May 7-8, 2015
4.	2 <sup>nd</sup> International Conference on	University of Seville, Spain and KES	Member, International	Seville, Spain, April 12-15,

	Sustainable Design and Manufacturing (SDM'2015)	International	Program Committee	2015
5.	IEEE Wireless Communications and Networking Conference (WCNC 2015)	IEEE Communications Society	Member, Technical Program Committee, Track 3 - Mobile and Wireless Networks Track	New Orleans, LA USA, March 09 – 12, 2015
6.	4th International Conference on Sensor Networks (SENSORNETS 2015)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Angers, France, February 11 – 13, 2015
7.	1st International Conference on Communications, Information Systems, Control and Their Applications (CISCA 2015)	Asansol Engineering College, Asansol, India	Member, Technical Program Committee	Asansol Engineering College, Asansol, India, January 15 - 17, 2015
8.	7th International Conference on Agents and Artificial Intelligence (ICAART 2015)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Lisbon, Portugal, January 10-12, 2015
9.	4th International Conference on Pattern Recognition Applications and Methods (ICPRAM 2015)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Lisbon, Portugal, January 10-12, 2015
10.	4th World Congress on Information and Communication Technologies 2014 (WICT 2014)	UTeM, Malaysia, and MIR Labs, USA	Member, International Program Committee	Malacca, Malaysia, December 08-11, 2014
11.	14 <sup>th</sup> International Conference on Intelligent Systems	MIR Labs, USA and Universiti Putra Malaysia, Malaysia.	Member, International Program	Okinawa, Japan, November 27-

	Design and Applications (ISDA 2014)		Committee	30, 2014
12.	Eighth International Conference on Sensor Technologies and Applications (SENSORCOMM 2014)	International Academy, Research, and Industry Association (IARIA), USA	Member, Technical Program Committee	Lisbon, Portugal, November 16-20, 2014
13.	2 <sup>nd</sup> International Congress on Neurotechnology, Electronics and Informatics (NEUROTECHNIX 2014)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Rome, Italy, October 17-18, 2014
14.	2014 IEEE International Conference on Imaging Systems and Techniques (IST 2014)	IEEE Instrumentation and Measurement Society and TC 19 Technical Committee on Imaging Systems	<b>Technical Program Co-Director</b>	Island of Santorini, Greece, October 14-17 2014
15.	2014 IEEE 80th Vehicular Technology Conference: VTC2014-Fall	IEEE Vehicular Technology Society	Member, Technical Program Committee, "Smart Grid, Electric Vehicles, and Vehicular Electronics" track	Vancouver, Canada, September 14-17, 2014
16.	International Workshop on Mobility Management and Mobile Middleware (MobiMMWare 2014)	IEEE Communications Society	Member, Technical Program Committee	Rome, Italy, September 8-10, 2014
17.	11th International Conference on Signal Processing and Multimedia Applications (SIGMAP 2014)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Viena, Austria, August 28-30, 2014

18.	5th International Conference on Data Communication Networking (DCNET 2014)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Viena, Austria, August 28-30, 2014
19.	11th International Conference on Wireless Information Networks and Systems (WINSYS 2014)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Viena, Austria, August 28-30, 2014
20.	6 <sup>th</sup> International Conference on Soft Computing and Pattern Recognition (SoCPaR 2014)	University of Sfax, Tunisia and MIR Labs, USA	Member, International Program Committee	Tunis, Tunisia, August 11-14, 2014
21.	6th International Conference on Nature and Biologically Inspired Computing (NaBIC 2014)	Instituto Superior de Engenharia do Porto, Portugal and MIR Labs, USA	Member, International Program Committee	Porto, Portugal, July 30-August 01, 2014
22.	6th International Conference on Computational Aspects of Social Network 2014 (CASoN 2014)	Instituto Superior de Engenharia do Porto, Portugal and MIR Labs, USA	Member, International Program Committee	Porto, Portugal, July 30-August 01, 2014
23.	2014 UKACC 10th International Conference on Control (CONTROL 2014)	Loughborough University, UK	Member, International Program Committee	Loughborough University, UK, July 09-11, 2014
24.	2014 IEEE Congress on Evolutionary Computation (IEEE CEC 2014)	IEEE, Computational Intelligence Society	Member, Program Committee	Beijing, China, July 06-11, 2014
25.	9th IEEE International Symposium on Medical Measurement and Applications (MeMeA)	IEEE Instrumentation & Measurement Society	Member, International Program Committee	Lisbon, Portugal, June 11-12, 2014



	2014)			
26.	9th IEEE Conference on Industrial Electronics and Applications (ICIEA 2014)	IEEE Industrial Electronics (IE) Chapter, Singapore Section, and Zhejiang University of Technology, China	<b>Track Chair, “Control and Systems” track</b>	Hangzhou, China, June 09-11, 2014
27.	International Workshop on Security, Privacy and Trust for Wireless Networks (SPTWN-2014) (held in conjunction with Fifth International Conference on Ambient Systems, Networks and Technologies (ANT 2014))	Hasselt University, Belgium	Member, Technical Program Committee	Hasselt, Belgium, June 2-5, 2014
28.	2014 IEEE 79th Vehicular Technology Conference: VTC2014-Spring	IEEE Vehicular Technology Society	Member, Technical Program Committee	Seoul, Korea, May 18 - 21, 2014
29.	International Conference of Control, Dynamic Systems, and Robotics (CDSR'14)	International Academy of Science, Engineering, and Technology	Member, Scientific Committee	Ottawa, Ontario, Canada, May 15-16, 2014
30.	International Conference on Swarm Intelligence Based Optimization (ICSIBO 2014)	Laboratoire de Mathématiques, Informatique et Applications (LMIA), Université de Haute Alsace, Mulhouse, France	Member, Scientific Committee	Mulhouse, France, May 13-14, 2014
31.	2014 IEEE International Instrumentation and Measurement Technology Conference (I <sup>2</sup> MTC 2014)	IEEE Instrumentation & Measurement Society	Member, Technical Program Committee	Montevideo, Uruguay, May 12 – 15, 2014
32.	2014 IEEE International Conference on Computational	IEEE Computational Intelligence Society and IEEE	Member, Technical Program	Ottawa, ON, Canada, May 05-07, 2014

	Intelligence and Virtual Environments for Measurement Systems and Applications (CIVEMSA 2014)	Instrumentation & Measurement Society	Committee	
33.	International Conference on Sustainable Design and Manufacturing (SDM'2014)	Cardiff University, Wales, UK and KES International	Member, International Program Committee	Cardiff, Wales, UK, April 28-30, 2014
34.	2014 International Conference on Information Science, Electronics and Electrical Engineering (ISEEE 2014)	IEEE Sapporo Section, Japan and Xiamen University, China	Member, Program Committee	Sapporo City, Hokkaido, Japan, April 26-28, 2014
35.	IEEE Ninth International Conference on Intelligent Sensors, Sensor Networks and Information Processing (IEEE ISSNIP 2014)	Institute for Infocomm Research and Australian Research Council's Research Network on ISSNIP	Member, Technical Program Committee – Symposium on Sensor Networks	Singapore, April 21-24, 2014
36.	First National Conference on Communication, Information & Control Systems (NCCICS '14)	Dept. of Electronics and Communication Engg., V V College of Engineering, Tamilnadu	<b>Member, Advisory Committee</b>	Tamilnadu, India, April 10, 2014
37.	IEEE Wireless Communications and Networking Conference (WCNC 2014)	IEEE Communications Society	Member, Technical Program Committee, Track 3 - Mobile and Wireless Networks Track	Istanbul, Turkey, April 06 – 09, 2014
38.	EDUCON2014 IEEE Global Engineering Education Conference - Special Track "IT and Engineering Pedagogy" (ITEP'14)	IEEE Education Society	Member, Program Committee	Istanbul, Turkey, April 03-05, 2014

39.	6 <sup>th</sup> International Conference on Computer Supported Education (CSEDU 2014)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Barcelona, Spain, April 01-03, 2014
40.	6th International Conference on Agents and Artificial Intelligence (ICAART 2014)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Angers, Loire Valley, France, March 06-08, 2014
41.	3rd International Conference on Pattern Recognition Applications and Methods (ICPRAM 2014)	The Institute for Systems and Technologies of Information, Control and Communication (INSTICC)	Member, Program Committee	Angers, Loire Valley, France, March 06-08, 2014
42.	2014 IEEE Sensors Applications Symposium (SAS 2014)	IEEE Instrumentation & Measurement Society	Member, Technical Program Committee	Queenstown, New Zealand, February 18-20, 2014
43.	International Conference on Control, Instrumentation, Energy and Communication 2014 (CIEC14)	Department of Applied Physics, University of Calcutta, India	Member, International Technical Committee	Kolkata, India, January 31 - February 02, 2014
44.	1st International Conference on Automation, Control, Energy and Systems (ACES 2014)	Academy of Technology, Hooghly, West Bengal, India	Member, Technical Program Committee	Hooghly, India, February 01-02, 2014
45.	National Conference on Emerging Trends in Engineering & Science 2014 (ETES 2014)	Asansol Engineering College, Asansol, India	Member, Technical Program Committee	Asansol, India, January 30 - 31, 2014
46.	3 <sup>rd</sup> International Conference on Sensor Networks (SENSORNETS 2014)	The Institute for Systems and Technologies of Information, Control and Communication	Member, Program Committee	Lisbon, Portugal, January 07 – 09, 2014

		(INSTICC)		
47.	2 <sup>nd</sup> International Conference on Communication and Electronics Information (ICCEI 2014)	International Association of Computer Science & Information Technology (IACSIT)	Member, Technical Committee	Melbourne, Australia, January 02-03, 2014
48.	2 <sup>nd</sup> International Conference on Information and Education Technology (ICIET 2014)	International Association of Computer Science & Information Technology (IACSIT)	Member, Technical Committee	Melbourne, Australia, January 02-03, 2014
49.	3rd World Congress on Information and Communication Technologies 2013 (WICT 2013)	Le Quy Don Technical University, Hanoi, Vietnam, and MIR Labs, USA	Member, International Program Committee	Hanoi, Vietnam, December 15-18, 2013
50.	13 <sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2013)	IEEE Signal Processing Society and IEEE Computer Society	Member, Program Committee	Athens, Greece, December 12-15, 2013
51.	5 <sup>th</sup> International Conference on Pattern Recognition and Machine Intelligence 2013 (PReMI 2013)	Machine Intelligence Unit, Indian Statistical Institute, Kolkata, India	Member, Program Committee	Kolkata, India, December 10-14, 2013
52.	International Workshop on Computer Vision in Vehicle Technology: From Earth To Mars 2013 (CVVT:E2M 2013)		Member, Program Committee	Sydney, Australia, December 08, 2013
53.	5th World Congress on Nature and Biologically Inspired Computing 2013 (NaBIC 2013)	North Dakota State University, USA and MIR Labs, USA	Member, International Program Committee	Fargo, North Dakota, USA, August 12-14, 2013
54(a).	2013 IEEE Congress on Evolutionary Computation (CEC 2013)	IEEE, Computational Intelligence Society	Member, Program Committee	Cancún, México, June 20-23, 2013
54(b).	2013 IEEE Congress on Evolutionary Computation (CEC 2013)	IEEE, Computational Intelligence Society	Member, Program Committee, Special Session on	Cancún, México, June 20-23, 2013

			“Applications of Metaheuristics to the Design Automation of Electronic Circuits”	
55.	2011 IEEE/SICE International Symposium on System Integration (SII 2011)	IEEE and SICE, System Integration Division, Japan	<b>Regional Program Chair</b>	Kyoto, Japan, Dec. 20-22, 2011
56.	ICROS-SICE International Joint Conference 2009 (ICCAS-SICE 2009)	SICE, Japan and ICROS, Korea	<b>Regional Program Chair</b>	Fukuoka, Japan, August 18-21, 2009
57.	SICE Annual Conference 2008: International Conference on Instrumentation, Control, and Information Technology	SICE, Japan	<b>Regional Program Chair</b>	Tokyo, Japan, August 20-22, 2008

**24(b). INVOLVEMENT IN CONFERENCES/WORKSHOPS/SEMINARS ONLY AS A PARTICIPANT**

<b>Sl. No.</b>	<b>Conference/Symposium Details</b>	<b>Organizers/Sponsors</b>	<b>Venue and Date</b>
1.	One day Professional Development Programme on “Recent Advances in Computer Vision and its Applications”	IEEE, Kolkata Section and GOLD Chapter	Jadavpur University, Kolkata, August 27, 2012
2.	International Conference on “Emerging Trends in Electrical Engineering”	Electrical Engineering Department, Jadavpur University	Science City, Kolkata, January 12-14, 2007
3.	Intelligent Tools in Electrical Systems (ITES-2006)	Electrical Engineering Department, Jadavpur University and Power Engg. Chapter, IEEE Calcutta Section	Jadavpur University, Kolkata, March 22,

			2006
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## 25. COURSES/ WORKSHOPS ORGANIZED

Sl. No.	Name of the Program	Organizers	Served As	Venue and Date
1.	Short-term course on “Digital Signal Processing” (DSP-2008)	IEEE Power Engineering Chapter, Calcutta Section, and Jadavpur University, Electrical Engineering Department	Convenor	Jadavpur University, Kolkata, July 02-08, 2008
2.	One day workshop on “Recent Trends and Challenges in Robotics and Automation”	Jadavpur University, Kolkata, in collaboration with IEM, Kolkata, under TEQIP funded by World Bank	Convenor	Jadavpur University, Kolkata, September 25, 2006

## 26. MEMBERSHIPS OF PROFESSIONAL BODIES

- Member, *IEEE, USA* (2012 - 2013)
- Senior Member, *IEEE, USA* (2013 - )
- Member, *IEEE Vehicular Technology Society, USA* (2013 - )
- Member, *IEEE Instrumentation & Measurement Society, USA* (2013 - )
- Member, *IEEE Communications Society, USA* (2013)
- Ex-Member, *IEEE Computational Intelligence Society, USA* (2012)
- Associate Member, *Institution of Engineers (India)*

## 27. OTHER ACHIEVEMENTS

- The paper “Support vector machines employing cross-correlation for emotional speech recognition,” by Suryannarayana Chandaka, **Amitava Chatterjee**, and Sugata Munshi, published in *Measurement*, vol. 42, issue 4, pp. 611-618, May 2009, has been listed as one of the “Most Cited Measurement Articles” by the journal (ranked 11<sup>th</sup> in July, 2014).
- Translated the following book from French to English:  
J. Dréo, A. Petrowski, P. Siarry, and E. Taillard, “Metaheuristic Optimization for Hard Problems: Algorithms and Case Studies,” Springer-Verlag Publishers, 2005.

- Served in the past as Chairman, GOLD Chapter, IEEE Calcutta Section.
- Regularly serves as a reviewer for several international journals and conferences including IEEE Trans. Industrial Electronics, IEEE Trans. Fuzzy Systems, IEEE Trans. Instrumentation and Measurement, IEEE Trans. Vehicular Technology, IEEE Sensors Journal, IEEE Trans. Evolutionary Computation, IEEE Trans. Systems, Man, and Cybernetics, Part B: Cybernetics, Measurement (Elsevier), Signal Processing (Elsevier), Microelectronics Journal (Elsevier), Applied Mathematical Modeling (Elsevier), Engineering Applications of Artificial Intelligence (Elsevier), Information Sciences (Elsevier), Robotica (Cambridge University Press) etc.
- Acted as the *Joint Coordinator* of the Integrated Research Program “*Embedded Technology*” of *Jadavpur University* under the scheme “*Strengthening of Post-graduate Education and Research in Engineering and Technology*” funded by MHRD, Govt. Of India, through the UGC.
- Presently serves as the *Convenor, Departmental Ph.D. Research Committee, Electrical Engineering Department, Jadavpur University, Kolkata, India.*
- Served as the Laboratory-in-Charge of Electrical Measurements and Instrumentation Laboratory, *Electrical Engineering Department, Jadavpur University*, from April, 2008 to March, 2010.