Curriculum Vitae

1. *Name:* **SUMANTRA DUTTA ROY**
2. *Date of Birth:* 27^{th} December, 1971
3. *Contact Information:* Department of Electrical Engineering,
I.I.T. Delhi, Hauz Khas, New Delhi - 110 016.

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Phone: 91-11-2659 1084 (O), 91-11-2658 6167 (Multimedia Lab)
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FAX: 91-11-2658 1606 (Attn. S. Dutta Roy, EE)

4. *Educational Qualifications:*

B.E. (Computer Engg.)	D.I.T.	1993	**University Topper** in Engineering (all disciplines), Recipient of **President's Gold Medal**
M.Tech. (Comp. Sc. & Engg.)	I.I.T. Delhi	1995	C.G.P.A. 9.41 (on a scale of 10)
Ph.D. (Comp. Sc. & Engg.)	I.I.T. Delhi	2001	"Active Object Recognition through Next View Planning"

5. *Research Experience:*
I completed my Ph.D. at the Department of Computer Science and Engineering, I.I.T. Delhi immediately after my M.Tech. My field of interest is Computer Vision and the title of my Ph.D. thesis was *'Active Object Recognition through Next View Planning'*. Immediately after my Ph.D., I joined the Department of Electrical Engineering at I.I.T. Bombay, as an *Assistant Professor* (27 March, 2001 - 02 January, 2007). From 03 January, 2007 to 03 August, 2018, I was an *Associate Professor*. in the Department of Electrical Engineering at I.I.T. Delhi. From 03 August, 2018, I have been a *Professor* in the Department of Electrical Engineering at I.I.T. Delhi.

6. *Areas of Interest:*
Computer Vision and Image Analysis, Pattern Recognition and Machine Learning, Music Information Retrieval and Analysis, Biometrics, Bioinformatics

7. *Topics of Current Research Activity:*
   - Active 3-D Object Recognition
   - Tracking, Gesture and Activity Analysis
   - Image Mosaicing
   - Music Information Retrieval and Analysis
   - Biometrics: Fingerprint Analysis
   - Bioinformatics: Protein Structure Analysis
   - Document Image Analysis
   - Parametric Video Coding
   - Facial Emotion Analysis
   - Medical Image and Data Analysis

8. *Awards and Honours:*

   - Associate Editor, Pattern Recognition Letters, 2011-to date

   - Awarded BOYSCAST Fellowship, 2004 - 2005 (Department of Science and Technology, Government of India).

   - One of the 12 selected for the INAE Young Engineer Award, 2003 (Indian National Academy of Engineering).

   - Erasmus+ (European Union) funding for presenting a lecture series at the Vilnius Gediminas Technical University, Vilnius, Lithuania, July 2017.

   - Visiting Associate Professor at Hiroshima University, 15 May-15 July, 2018

   - Associate Editor, Sadhana, 2018-

   - Invited to be a Program Co-Chair in India's top National conference in the area, NCVPRIPG'17 (National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics), 16-19 Dec'17

   - Project awarded under the **SERC FAST TRACK PROPOSAL FOR YOUNG SCIENTISTS (2001-2002) - (ENGINEERING SCIENCES)** Science and Engineering Research Council, Department of Science and Technology. Title of the Project: "Automated Fingerprint Analysis and Recognition"

No. SR/FTP/ET-199/2001
Total Cost: Rs. 5.52 lakhs, Duration: 3 years. (Completed)

- **University Topper** in all branches of Engineering (COE, ECE, Mech, EE, ICE, Prod, Civil, D.C.E. + D.I.T) Delhi University, in B.E. Recipient of **President's Gold Medal** at D.I.T. Annual Convocation, 1994.

- Scholarship of Rs. 100 and Fees Exemption for Ist year, B.E.

- Numerous awards in International and National Painting Competitions (**including Prize and Silver Medal in Shankar's International Painting Competition, and 4 times winner of prizes in Shankar's On-the-Spot Painting Competitions**), Inter-school and Intra-school debates(English, Hindi), Recitations(English, Sanskrit) and Quiz Contests.

- **All-India Topper in Sanskrit in A.I.S.S.E. (Class X) with 100% marks, and among top 1% of all successful candidates**

- **Recipient of Junior Science Talent Search Scholarship, 1985-86, 1986-87**

9. *Professional membership:*

- Member of the IEEE (Membership No. 40121994) since 1995

- Life Member of the IETE (Membership No. M149744)

- Life Member of the ISTE (Membership No. LM35853)

- Life Member of the IUPRAI (Membership No. L 011)

10. *Courses Taught:*

1. ELL100/EEL102: Introduction to Electrical Engineering/ Principles of Electrical Engineering (UG)
   [taught twice, class size $\sim$ 130]
   (Spring Semester, 2018 - 2019, Autumn Semester 2006 - 2007)

2. ELL782/EEL601: Computer Architecture (PG)
   [taught 11 times, class size $\sim$ 30]
   (Autumn Semester 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008)

3. ELL781: Software Fundamentals for Computer Technology (PG) (co-taught)
   [taught once, class size $\sim$ 30]
   (Autumn Semester 2017 - 2018)

4. JRL301: Robotics Technology (UG) (co-taught)
   [taught thrice, class size $\sim$ 20]
   (Autumn Semester 2018 - 2019, 2017 - 2018, 2016 - 2017)

5. ELL305: Computer Architecture (UG)
   [taught once, class size $\sim$ 200]
   (Autumn Semester 2017 - 2018)

6. ELL784: Introduction to Machine Learning (PG)
   [taught thrice, class size $\sim$ 50]
   (Spring Semester 2018 - 2019, 2017 - 2018, 2016 - 2017)

7. EEL806: Computer Vision (PG+UG)
   [taught 7 times, class size $\sim$ 30-80]
   (Autumn Semester 2014 - 2015, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008)

8. ELL409: Machine Intelligence and Learning (UG) (co-taught)
   [taught once, class size $\sim$ 50]
   (Spring Semester 2015 - 2016)

9. EEL702: System Software (PG) (co-taught)
   [taught once, class size $\sim$ 70]
   (Autumn Semester 2013 - 2014)

10. ELL783/EEL602: Operating Systems (PG)
    [taught 11 times, class size $\sim$ 30-50]
    (Spring Semester 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009)

11. EEL358/ELL405: Operating Systems (UG)
    [taught twice, class size $\sim$ 50-70]
    (Autumn Semester 2016 - 2017, 2015 - 2016)

12. EEL709: Pattern Recognition (PG+UG) (co-taught)
    [taught once, class size $\sim$ 60]
    (Spring Semester 2013 - 2014)

13. EEP308: Computer Architecture Laboratory (co-taught)
    [taught 7 times, class size $\sim$ 50]
    (Spring Semester 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2007 - 2008, 2006 - 2007)

14. EEL102: Principles of Electrical Engineering (UG)
    [taught once, class size $\sim$ 130]
    (Spring Semester, 2007 - 2008)

15. ELL100/EEL102: Principles of Electrical Engineering Laboratory (co-taught)
    [taught twice, class size $\sim$ 50]
    (Spring Semester 2014 - 2015, 2006 - 2007)

Courses Taught when previously at I.I.T. Bombay:

1. EE610: Image Processing (UG+PG)
   [taught thrice, class size $\sim$ 50]
   (Autumn Semester 2006 - 2007, 2004 - 2005, 2001 - 2002)

2. EE206: Digital Circuits (UG)
   [taught 5 times, class size $\sim$ 80]
   (Spring Semester 2005 - 2006, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2001 - 2002)

3. IT602: Multimedia Systems (PG) (co-taught at the Kanwal Rekhi School of Information Technology, I.I.T. Bombay)
   [taught once, class size $\sim$ 30]
   (Spring Semester 2002 - 2003)

4. EE309: Computer Organization, Architecture and Microprocessors (Originally, Microprocessors) (UG)
   [taught two times, class size $\sim$ 80]
   (Autumn Semester 2003 - 2004, 2002 - 2003)

5. EE315: Microprocessors Lab (UG) (co-taught)
   [taught thrice, class size $\sim$ 50]
   (Autumn Semester 2006 - 2007, 2004 - 2005, 2003 - 2004)

6. EE443: Digital Signal Processing Lab (UG) (co-taught)
   [taught once, class size $\sim$ 30]
   (Spring Semester 2005 - 2006)

11. *Sponsored and Consultancy Projects:*

11a. *Sponsored Projects:*

- "Text and Image Semantic Graphs" as PI (at IIT Delhi), Sponsoring Agency: SPARC. Budget: Rs. 44.67775 lakhs. (Coordinator: Dr. G. Harit, IIT Jodhpur) (Jointly with IIIT Hyderabad, Universitat Autonoma de Barcelona, Spain) Duration: 2 years. (Proposal Code: P846) (In Progress)

- "Design of Energy Efficient Computing Systems for Mobile Vision Applications" as Co-PI, Sponsoring Agency: Department of Science and Technology (DST). Budget: Rs. 38.728 lakhs. Duration: 3 years. (In Progress) (IIT Delhi IRD Project Code: RP03615G) (PI: Dr. S. R. Sarangi)

- "Autonomous calibration of robot cameras using on-body markers" as Co-PI, Sponsoring Agency: Department of Science and Technology (DST): Joint Indo-Russia project. Budget: Rs. 24 Lakhs. Duration: 2 years. (In Progress) (IIT Delhi IRD Project Code: RP03615G) (PI: Prof. S. K. Saha, Co-PI: Dr. Chetan Arora)

- "Research in Human-Centered Robotics with special emphasis on Field and Bio-Medical Rehabilitation (Joint Network Center)" as co-PI, Sponsoring Agency: Department of Science and Technology (DST): Joint Indo-Korea project. Budget: Rs.2.2377 crores. Duration: 3 years. (In Progress) (IIT Delhi IRD Project Code: RP03546G) (PI: Prof. S. K. Saha, Co-PI: Prof. Sunil Jha)

- "Uncertainty modelling of bin picking system and Determination of Robot Kinematic Parameters using Non-contact Sensors" as PI, Sponsoring Agency: IRD, IITD (under the FIRP scheme). Budget: 10 lakhs. Duration: 2 years. (In Progress) (IIT Delhi IRD Project Code: FIRP/Proposal-12, MI01689G) (Co-PI: Prof. S. K. Saha)

- "National Program on Perception Engineering (NPPE) Phase II" as Co-PI, Sponsoring Agency: Ministry of Communications and Information Technology. Budget: Rs. 2.6082 crore. Duration: 4 years, (28 March, 2014 - 27 March, 2018). (In Progress) (IIT Delhi IRD Project Code: RP02874) (PI: Prof. I. N. Kar)

- "Development of Robust Document Image Understanding System for Documents in Indian Scripts Phase-II" as Co-PI, Sponsoring Agency: Ministry of Communication and Information Technology. Budget: Rs. 11.8622496 crores. Duration: 3 years, 2010 - 2013 (w.e.f 01 July, 2010). Extended to 30.06.2015. (Completed) (IIT Delhi IRD Project Code: RP02441) (PI: Prof. Santanu Chaudhury, Co-PI: Dr. Brejesh Lall)

- "PAMC Digital Hampi Programme" as PI (earlier was co-PI), Sponsoring Agency: Department of Science and Technology (DST). Budget: Rs. 10 lakhs. Duration: 1 year, 25.11.2013 - 30.06.2014. Extended to 31.07.2015. (Completed) (IIT Delhi IRD Project Code: MI01111) (Co-PI: Prof. Santanu Chaudhury)

- "Managing Intangible Cultural Assets through Ontological Interlinking" as PI (earlier was co-PI), Sponsoring Agency: Department of Science and Technology (DST). Budget: 38 lakhs Duration: 3 years, 2010 - 2013 (w.e.f. 22 June, 2010). Extended to 30.06.2014. (Completed) (IIT Delhi IRD Project Code: RP02361) (co-PI: Prof. Santanu Chaudhury)

- "Human Emotion Recognition using Computer Vision" as PI, Sponsoring Agency: Defence Institute of Psychological Research (DIPR). Budget: 25 lakhs. Duration: 2 years, 2010 - 2012 (w.e.f 13 July, 2010). (Completed) (IIT Delhi IRD Project Code: RP02373) (Co-PI: Prof. Santanu Chaudhury)

- "Hand Gesture Recognition" as PI, Sponsoring Agency: HP Labs India, Bangalore. Budget: Rs. 7.5 lakhs. Duration: 2 years, 2010 - 2012 (w.e.f. 25 May, 2010). (Completed) (IIT Delhi IRD Project Code: RP02357) (Co-PI: Prof. Santanu Chaudhury)

- "Vision-Guided Control of a Robotic Manipulator" as PI, Sponsoring Agency: Department of Atomic Energy (BRNS: Board for Research in Nuclear Sciences). Budget: Rs. 1.4434 Crores. Duration: 5 years,

2010 - 2015 (w.e.f. 04 May, 2010). (Completed) (IIT Delhi IRD Project Code: RP02349) (Co-PI: Prof. Santanu Chaudhury)

- "Development of Video Compression Scheme Based on Parametric Coding" as Co-PI, Sponsoring Agency: ST Microelectronics. Budget: Rs. 29.10 lakhs. Duration: 3 years, 2008 - 2011 (w.e.f. 17 December, 2008). (Completed) (IIT Delhi IRD Project Code: RP02165) (PI: Prof. Santanu Chaudhury, Co-PI: Dr. Brejesh Lall)

- "Initiating a National Program on Perception Engineering" as Co-PI, Sponsoring Agency: Department of Information Technology. Budget: Rs. 114 lakhs. Duration: 3 years, 2008 - 2011 (w.e.f. 04 December, 2008) (Completed) (IIT Delhi IRD Project Code: RP02171) (PI: Prof. Santanu Chaudhury, Co-PI: Prof. I .N. Kar)

- "Investigations into Micro-Grasping" ac Co-PI, Sponsoring Agency: Ministry of Science and Technology, Department of Science and Technology (DST). Budget: Rs. 30.60867 lakhs. Duration: 2 years, 2008 - 2010 (w.e.f. 29 September, 2008) (Completed) (IIT Delhi IRD Project Code: RP02152) (PI: Prof. Sudipto Mukherjee, Co-PI: Prof. I. N. Kar)

- "Development of Robust Document Analysis and Recognition System for Printed Indian Scripts" as Co-PI, Sponsoring Agency: Ministry of Communication and Information Technology. Budget: Rs. 641.91 lakhs. Duration: 3 years, 2006 - 2008 (w.e.f 14 September, 2006). Extension till 04 September, 2009. (Completed) (IIT Delhi IRD Project Code: RP01894) (PI: Prof. Santanu Chaudhury)

- "Music Information Retrieval" as PI, Sponsoring Agency: IIT Delhi, research startup grant. Budget: Rs. 1 lakh. Duration: 1 year, 2007 - 2008. (Completed)

- "Vision Based Activity Monitoring for Surveillance Applications" as PI, Sponsoring Agency: Naval Research Board. (joined as Co-PI at IIT Delhi after leaving IIT Bombay - this is a joint IIT Bombay-IIT Delhi project) Budget: Rs. 61.76 lakhs. Duration: 3 years, 2006 - 2009. (Completed) (PI: Prof. Santanu Chaudhury, Co-PI: Prof. Subhashis Banerjee)

- "Multimedia Systems" as Co-PI, Sponsoring Agency: IIT Bombay Budget: Rs. 5 lakhs. Duration: 3 years: 2003 - 2006. (Completed) (Other Co-PIs: Prof. Subhasis Chaudhuri, Dr. Preeti S. Rao)
- "Automated Fingerprint Analysis and Recognition" as PI, awarded under the DST SERC Fast Track Proposal for Young Scientists (Engineering Sciences) scheme (2001-2002). Budget: Rs. 5.52 lakhs. Duration: 3.5 years, 2002 - 2006. (Completed)
- "Experimental Setup for Multi-View 3-D Object Recognition" as PI, Sponsoring Agency: IIT Bombay, research startup grant. Budget: Rs. 50,000. Duration: 1 year, 2002 - 2003. (Completed)

Other Information:

- Invited Lectures:
  - Microsoft Research, Redmond, Seattle, USA. (June, 2001)
  - Dr. Babasaheb Ambedkar Technological University, Lonere. (September, 2001)
  - IEEE Students Section, IIT Bombay, DSP Week. (October, 2001)
  - School of Computer Engineering, Nanyang Technological University, Singapore. (June, 2002)
  - MGM College of Engineering. (May, 2002)
  - Fr. Agnel: Father Conceicao Rodrigues Institute of Technology, Vashi, Mumbai. (May, 2003)
  - Gogte Institute of Technology, Belgaum. (May, 2003)
  - Simhagad College of Engineering, Pune. (June, 2003)
  - Madhav Institute of Technology and Science, Gwalior (July, 2003)
  - INAE Young Engineer Awardee Lecture, INAE Annual Function, Chennai. (December, 2003)
  - Dr. Babasaheb Ambedkar Technological University, Lonere. (March, 2004)
  - IIT Bombay CEP Course on Role of Technology in Crime Prevention (November, 2004)
  - Thadomal Shahani Engineering College, Mumbai (February, 2005)

– Motorola Labs, Schaumberg Campus, Illinois, USA (September, 2005)
– IIT Bombay CEP Course on Role of Technology in Crime Prevention (October, 2005)
– Jawaharlal Nehru Engineering College, Aurangabad (April, 2006)
– Naval Research Board Workshop on Gesture Analysis and Tracking (April, 2006)
– Ramrao Adik Institute of Technology, Mumbai (July, 2006)
– IRDE, Dehradun (September, 2006)
– IIT Bombay CEP Course on Role of Technology in Crime Prevention (November, 2006)
– Madhav Institute of Technology and Science, Gwalior (November, 2006)
– National Workshop on Perception Engineering, IIT Delhi (July, 2007)
– Workshop on Advances in Multimedia Processing, IIT Delhi (July, 2007)
– Air Force Technical College, Bangalore (September, 2007)
– IIT Kanpur (September, 2007)
– IIT Bombay CEP Course on Role of Technology in Crime Prevention (October, 2007)
– MGM College of Engineering, Nanded (November, 2007)
– Workshop on Video Processing, IIT Delhi (December, 2007) (Co-organised)
– Workshop on Classifiers, DA-IICT, Gandhinagar (January, 2008)
– NIT Rourkela (March, 2008)
– Workshop on Image Processing and Applications for DRDO scientists, IIT Delhi (March, 2008)
– TCS Workshop on Virtual Reality and its Applications to Enterprises (April, 2008)
– Summer school on Advances in Signal, Image and Video Processing, NITTTR Chandigarh (July, 2008)

– Short-Term Training Programme on Computer Vision and Image Processing, SVNIT Surat (July, 2008)
– School on Computer Vision, Graphics and Multimedia, ABV-IIITM Gwalior (August, 2008)
– Winter School on Advances in Image Processing, NITTTR Chandigarh (January, 2009)
– UK-India Winter School on Interactive Technologies, HP Labs, Bangalore (February, 2009)
– Interactive (Human-Computer) Technologies for the End-user, IIT Delhi (May, 2009) (Co-organised)
– Defence Institute of Advanced Technology, Pune (June, 2009)
– Short-Term Course on Advanced Image Processing Techniques, ABV-IIITM Gwalior (September, 2009)
– National Conference on Signal and Image Processing Applications, Pune (September, 2009)
– Short-term Course on Advances in Digital Signal Processing, ABV-IIITM Gwalior (December, 2009)
– International Conference on Emerging Trends in Computer Science, Communication and Information Technology, Yeshwant Mahavidyalaya, Nanded (January, 2010)
– National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG) 2010, Jaipur (January, 2010)
– Maharana Pratap College of Technology, Gwalior (February, 2010)
– India HCI, 2010, Mumbai (March 2010)
– Ramrao Adik Institute of Technology, Mumbai (August, 2010)
– MGM College of Engineering, Nanded (October, 2010)
– CSJM University, Kanpur (January, 2011)
– RGIT, Mumbai (January, 2011)
– RGPV, Bhopal (May, 2011)
– TCE, Madurai (July, 2011)
– TCS Kolkata (August, 2011)

– Marudhar Engineering College, Bikaner (September, 2011)
– MANIT, Bhopal (November, 2011)
– College of Engineering, Pune (December, 2011)
– National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG) 2011, Hubli (December, 2011)
– IIT Patna (January, 2012)
– PDP-IIITDM, Jabalpur (July, 2012)
– MNIT, Jaipur (September, 2012)
– SPACES Degree College, Payakaraopeta, Tuni, Vishakhapatnam (September, 2012)
– SGGSIET, Nanded (March, 2013)
– PSG College of Technology, Coimbatore (May, 2013)
– ITER, SO'A University, Bhubaneshwar (May, 2013)
– College of Engineering, Pune (May, 2013)
– Walchand College of Engineering, Sangli (June, 2013)
– PSG College of Technology, Coimbatore (July, 2013)
– Madras Institute of Technology, Chennai (July, 2013)
– MANIT Bhopal, (August, 2013)
– PDP-IIITDM, Jabalpur (September, October, 2013)
– VPCOE, Baramati, Pune (October, 2013)
– SGGSIET, Nanded (December, 2013)
– VJTI, Mumbai (December, 2013)
– Barco, NOIDA (February, 2014)
– MITS, Gwalior (March, 2014)
– NITTTR, Chandigarh (March, 2014)
– DTU, Delhi (July, 2014)
– DCRUST, Murthal (July, 2014)
– PSG College of Technology, Coimbatore (July, 2014)

– IIT Ropar (October, 2014)
– JNU (August, 2015)
– DCRUST, Murthal (April, 2016)
– CIT, Coimbatore (April, 2016)
– College of Engineering, Pune (May, 2016)
– NIT Goa (June, 2016)
– DTU, Delhi (July, 2016)
– SGGSITS, Nanded (July, 2016)
– GCET, Vallabh Vidyanagar (October, 2016)
– SCET, Surat (October, 2016)
– SATI, Vidisha (November, 2016)
– GCoE, Aurangabad (February, 2017)
– BVM Engg College, Vallabh Vidyanagar (February, 2017)
– MIT, Aurangabad (March, 2017)
– Jadavpur University, Kolkata (March, 2017)
– CoE, Pune (March, 2017)
– NIT Patna (April, 2017)
– NIT Hamirpur (April, 2017)
– NIT Warangal (April, 2017)
– Nirma University, Ahmedabad (July, 2017)
– VGTU, Vilnius, Lithuania (July, 2017)
– NSIT, New Delhi (July, 2017)
– BGSB, Rajouri (August, 2017)
– Ahmedabad University (August, 2017)
– PSGTech, Coimbatore (September, 2017)
– NIT Warangal (December, 2017)
– TCE, Madurai (January, 2018)
– VNIT Nagpur (February, 2018)
– CSIR-CEERI Jaipur Centre (February, 2018)

  - IET Lucknow (February, 2018)
  - NIT Meghalaya, Shillong (March, 2018)
  - DTU, Delhi (April, 2018)
  - Hiroshima University (June, 2018)
  - GH Raisoni College of Engineering, Nagpur (July, 2018)
  - NIT Silchar (July, 2018)
  - PSGTech, Coimbatore (October, 2018)
  - IIT Kanpur (December, 2018)
  - SRIT Anantapuramu (December, 2018)
  - TCE Madurai (January, 2019)
  - LNMIIT Jaipur (February, 2019)
  - MITS Gwalior (March, 2019)
  - IIEST Shibpur (March, 2019)
  - JIUT Waknaghat (June, 2019)

- Reviewed papers for journals and conferences, including Artificial Intelligence; IEEE Transactions on Pattern Recognition and Machine Intelligence; IEEE Transactions on Image Processing; IEEE Transactions on Systems, Man and Cybernetics Part B; IEEE Transactions on Automation Science and Engineering; IEEE Transactions on Knowledge and Data Engineering; IEEE Transactions on Circuits and Systems for Video Technology; IEEE Signal Processing Letters; Pattern Recognition; Pattern Recognition Letters; Image and Vision Computing; Pattern Analysis and Applications; EURASIP Journal on Applied Signal Processing; EURASIP Journal on Image and Video Processing; Engineering Applications of Artificial Intelligence; Computers and Electrical Engineering; IETE Journal of Research; IETE Journal of Education; IETE Technical Review; The Computer Society of India Journal; The IEEE International Conference on Computer Vision (ICCV); The IEEE International Conference on Robotics and Automation (ICRA); IEEE TENCON; The IEEE International Symposium on Circuits and Systems (ISCAS); The IEEE Workshop on Applications of Computer Vision (WACV); The IAPR-sponsored International Conference on Pattern Recognition (ICPR); The IUPRAI-sponsored Indian Conference on Computer Vision, Graphics and Image Processing

(ICVGIP); The IUPRAI-sponsored International Conference on Advances in Pattern Recognition (ICAPR); The Asian Conference on Computer Vision (ACCV); The IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS); The IUPRAI-sponsored International Conference on Pattern Recognition and Machine Intelligence (PReMI); The IEEE Computer Society-sponsored International Conference on Computing: Theory and Applications (ICCTA); The European Signal Processing Conference (EUSIPCO); International Conference on Signal Processing and Communications (SPCOM); The IEEE and IAPR-sponsored Digital Image Computing: Techniques and Applications (DICTA); The IEEE International Conference on Advanced Computing and Communications (ADCOM); National Conference on Communications (NCC); National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG); International Conference on Information Technology (CIT); The International Fall Workshop on Vision, Modeling, and Visualization (VMV) (co-sponsored by the IEEE Signal Processing Society); Document Recognition and Retrieval (DRR) XV (part of the IS&T/SPIE International Symposium on Electronic Imaging); ACM and IEEE Communications Society-sponsored Conference on Communication Networks and Services Research (CNSR); Asian Applied Computing Conference (AACC); Workshop on Computer Vision, Graphics and Image Processing (WCVGIP), India; National Systems Conference (NSC).

- Have been on the Program Committee of the The IAPR-sponsored International Conference on Pattern Recognition (ICPR), The IEEE International Conference on Computer Vision (ICCV), The Asian Conference on Computer Vision (ACCV), The IUPRAI-sponsored Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP) (was also the Area Chair, Image Processing, and the Publicity Chair, ICVGIP'10), The IEEE Workshop on Applications of Computer Vision (WACV), The IUPRAI-sponsored International Conference on Pattern Recognition and Machine Intelligence (PReMI) (was also the Publication Chair for PReMI'09), The IEEE Computer Society-sponsored International Conference on Computing: Theory and Applications (ICCTA), and The National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG).

- International Conferences Attended:

    1. IEEE Computer Society International Conference on Computer Vision and Pattern Recongition (CVPR) 2005, 2007.
    2. IEEE International Conference on Image Processing (ICIP) 2004, 2010.
    3. IEEE International Conference on Computer Vision (ICCV) 1998, 2001.
    4. IAPR-sponsored International Conference on Pattern Recognition (ICPR) 2008.
    5. Asian Conference on Computer Vision (ACCV) 2012.
    6. Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP) 1998, 2000, 2002, 2004, 2008, 2010, 2012, 2014.
    7. IAPR-sponsored International Conference on Document Analysis and Recognition (ICDAR) 2011.
    8. IAPR-sponsored International Workshop on Document Analysis Systems (DAS) 2014.
    9. IEEE EMBS International Symposium on Biomedical Imaging (ISBI), 2015.
    10. IEEE EMBS Engineering in Medicine and Biology Conference (EMBC), 2014.
    11. IEEE EMBS Conference on Neural Engineering (NER), 2013.
    12. IUPRAI-sponsored International Conference on Pattern Recognition and Machine Intelligence (PReMI), 2009, 2011.
    13. Advances in Robotics (AIR), 2015, 2013.
    14. IEEE Computer Society-sponsored International Conference on Computing: Theory and Applications (ICCTA) 2007.
    15. Indo-Israeli Workshop on Computer Vision, 2008.
    16. International Symposium on Intelligent Robotic Systems (ISIRS) 1998.
    17. International Workshop on Expressive Interactions for Sustainability and Empowerment (EISE), 2009.

18. Indian Conference on Pattern Recognition, Image Processing and Computer Vision (ICPIC) 1995.

- National Conferences Attended:

1. National Conference on Communications (NCC) 2002, 2003, 2004, 2005, 2006.
2. Workshop on Computer Vision, Graphics and Image Processing (WVGIP) Madurai, 2002.
3. IUPRAI-sponsored National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG) 2008, 2010, 2011, 2013, 2017.
4. India HCI, 2010.

- Hobbies include Sketching and Painting, and Playing the Flute.

Sumantra Dutta Roy: List of Publications

Patents:

1. S. Chaudhury, S. Tripathi, S. Dutta Roy. "Advanced video coding with perceptual quality scalability for regions of interest." US Patent US20120170659 A1. Filed 30 December 2011, Application number: 13/341,697, Published 12 July, 2012.

2. S. Chaudhury, M. Mathur, A. Khandelia, S. Tripathi, B. Lall, S. Dutta Roy, S. Gorecha. "System and Method for Object Based Parametric Video Coding." US Patent US8848802 B2. Filed 04 September 2009, Application number: 12554579, Published 27 November, 2014.

Book (Edited Volume):

1. R. Rameshan, C. Arora, S. Dutta Roy (Eds.). "Computer Vision, Pattern Recognition, Image Processing, and Graphics." *Springer*, 2018. eBook ISBN 978-981-13-0020-2, DOI 10.1007/978-981-13-0020-2, Softcover ISBN 978-981-13-0019-6

Journal Publications:

1. R. Prashanth, S. Dutta Roy.
"Early Detection of Parkinson's Disease through Patient Questionnaire and Predictive Modelling." *International Journal of Medical Informatics*, vol. 119, pp. 75 – 87, 2018.

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