

Dr. Shamik Sural

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CONTACT DETAILS:

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AREAS OF SPECIALIZATION:

Data and Application Security, Multimedia Systems

EDUCATION:

Ph.D.	Jadavpur University, Calcutta, India	2000	Engineering (Dept. – CSE)
M.E.	Indian Inst. of Science, Bangalore, India	1992	Electrical Communication Engg.
B.E.	Jadavpur University, Calcutta, India	1990	Electronics & Tele-Comm. Engg.

EMPLOYMENT:

Employer	Designation	Duration	Nature of Job
Indian Institute of Tech. Kharagpur	Professor	Aug 11 till date	Teaching and Research
Indian Institute of Tech. Kharagpur	Associate Professor	April 07 – Aug 11	Teaching and Research
Indian Institute of Tech. Kharagpur	Assistant Professor	Aug 02 – Apr 07	Teaching and Research
Data-Core Systems, Philadelphia, USA	Consultant	June 00 – July 02	Data Modeling, System Analysis and Design
NIIT Limited, Calcutta, India	Group Consultant	June 98 – May 00	Software Project Management, Software Quality Management
CMC Limited, Calcutta, India	Specialist (System Integration)	April 93 – May 98	Software Development, System Analysis and Design
Texas Instruments, Bangalore, India	IC Design Engineer	Feb 92 – Mar 93	VLSI Memory Design

(Ph.D. work was carried out in parallel with the job at CMC Limited and NIIT Limited)

AWARDS/HONORS:

- Paper titled "Friends are Forever? Evolution of Active Friendship Clusters in Online Social Networks" authored by Haritabh Gupta, Shamik Sural, Niloy Ganguly and Jaideep Vaidya received Honourable Mention at the COMSNETS 2017 - Social Networking Workshop, Bangalore, India, 2017
- Paper titled "Deciphering Text from Touchscreen Key Taps" authored by Haritabh Gupta, Shamik Sural, Vijayalakshmi Atluri and Jaideep Vaidya received the Best Student Paper award at the 30th IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSEC), Trento, Italy, 2016
- Paper titled "Toward Mining of Temporal Roles", authored by Barsha Mitra, Shamik Sural, Vijay Atluri and Jaideep Vaidya received the Best Student Paper Runner Up award at the 27th IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSEC), Newark, USA, 2013
- Was awarded Humboldt Fellowship for Experienced Researchers by Alexander von Humboldt Foundation, Germany, 2009-2010, 2011
- Paper titled "Credit Card Fraud Detection using Hidden Markov Model" authored by Abhinav Srivastava, Amlan Kundu, Shamik Sural and A.K.Majumdar selected as a featured article from the Jan-March issue of the IEEE Transactions on Dependable and Secure Computing, 2008
- Served as Chairman, IEEE Kharagpur Section, 2006

- Was awarded research grant under Fast Track Proposal for Young Scientists by the Department of Science and Technology, Govt. of India, 2004
- Special recognition awards by CMC Limited for publication of papers, 1995-1996
- First Class with Distinction in M.E. at IISc, Bangalore, 1992
- Certificate for securing second position at a student paper contest organized by IEEE Calcutta Section, 1990
- University Gold Medal for securing the First Class First position in B.E. (Electronics & Tele-Communication Engg.) from Jadavpur University, 1990
- T.P. Saha Medal for securing the highest aggregate of marks in the theoretical papers in B.E., 1990
- Bronze Medal for securing second highest aggregate of marks in the Faculty of Engineering in B.E., 1990
- U.R. Ghosh Medal for securing the highest aggregate of marks in Industrial Electronics & Instrumentation and Servomechanism in B.E., 1990
- Performance based scholarships by Jadavpur University during under-graduate study, 1986-1990
- Certificate of Honor awarded by Jagadish Bose National Science Talent Search, 1986
- Prizes and awards for securing 8th position in Higher Secondary Public Examination (XIIth Grade), 1986
- National Prize and Certificate of Merit under National Scholarship Scheme based on the results of secondary public examination (Xth Grade), 1984

CURRENT RESEARCH INTERESTS:

1. **Data and Application Security:** Access control models and their security analysis. Security as a Service
2. **Multimedia Systems:** Algorithms for detecting special events from video with practical applications like gait analysis and surveillance

THESIS SUPERVISION:

Number of Ph.D. Thesis Supervised	10
Number of Ph.D. Thesis under Supervision	9
Number of Masters Thesis Supervised	53
Number of Masters Thesis under Supervision	3

PUBLICATIONS:

In Journals (including articles in press)	67
As Book Chapters	8
In Conference Proceedings	112

FUNDED RESEARCH PROJECTS:

Development of Algorithms for Identifying Individuals using Gait in the Presence of Occlusion

Sponsored by: Council of Scientific and Industrial Research, Govt. of India

Duration: 3 Years (May 11 – May 15), Value: INR. 1,289,400 Role: Principal Investigator

Efficient Index-supported Multimedia Search on the Internet

Sponsored by the Dept. of Science & Technology, Govt. of India

Duration: 3 Years (March 07 – March 10), Value: INR 638,250 Role: Principal Investigator

Modeling and Management of Dynamic Multimedia Objects

Sponsored by the Dept. of Science and Technology, Govt. of India

Duration: 3.5 Years (Sep 04 – Feb 08), Value: INR 1,800,000, Role: Co-Principal Investigator

Development of Spatio-temporal Access Control Models

Sponsored by the Dept. of Science & Technology, Govt. of India

Duration: 3 Years (January 08 – July 2011), Value: INR 1,618,080, Role: Principal Investigator

Properties of High Dimensional Euclidean Space and their Applications in Approximate Nearest Neighbor

Search on Multimedia Databases

Sponsored by the Dept. of Science and Technology, Govt. of India

Duration: 3 Years (Mar 04 - Mar 07), Value: INR 330,000, Role: Principal Investigator

Content-Based Information Retrieval from Multimedia Databases

Sponsored by ISIRD, IIT Kharagpur

Duration: 3 Years (Mar 03 – Mar 06), Value: INR 288,000, Role: Principal Investigator

Survivable Information System Architecture with Intrusion tolerance, Containment and Recovery in Distributed Environment

Sponsored by the Dept. of Information Technology, Govt. of India

Duration: 3.5 Years (Jan 05 – Jun 08), Value: INR 5,500,000, Role: Principal Investigator

Placement and Routing of Test Structures

Sponsored by National Semiconductor Corporation, Santa Clara, USA

Duration: 2 Years (June 07 – May 09), Value: \$100,000, Role: Principal Consultant

Development of Parameterized Templates and R-extraction Tools

Sponsored by National Semiconductor Corporation, Santa Clara, USA

Duration: 4 Years (June 03 – May 07), Value: \$340,000, Role: Co-Consultant

EDITORIAL BOARD MEMBERSHIP

- IEEE Transactions on Services Computing

CONFERENCE PROGRAM COMMITTEE MEMBER (2013-17):

- International Conference on Network and System Security, Helsinki, Finland, 2017
- ACM Workshop on Genetic and Evolutionary Computation in Defense, Security, and Risk Management, Berlin, Germany, 2017
- International Conference on Image Analysis and Recognition, Montreal, Canada, 2017
- IEEE International Conference on Collaboration and Internet Computing, Pittsburgh, USA, 2016
- International Conference on Network and System Security, Taipei, Taiwan, 2016
- IEEE International Conference on Information Reuse and Integration, Pittsburgh, USA, 2016
- International Conference on Image Analysis and Recognition, Póvoa de Varzim, Portugal, 2016
- International Conference on Information Systems Security, Jaipur, India, 2016
- International Conference on Information Systems Security, Kolkata, India, 2015
- IEEE International Conference on Information Reuse and Integration, San Francisco, USA, 2015
- International Conference on Pattern Recognition and Machine Intelligence, Poland, 2015
- International Conference on Computer Vision Theory and Applications, Berlin, Germany, 2015
- IFIP WG 11.3 Working Conference on Data and Applications Security and Privacy (DBSEC), Vienna, Austria, 2014
- IEEE International Conference on Information Reuse and Integration, San Francisco, USA, 2014
- European Symposium on Research in Computer Security (ESORICS), Wroclaw, Poland, 2014
- International Conference on Intelligent Information System and Technology, Tsingtao, China, 2014
- International Conference on Computer Vision Theory and Applications, Lisbon, Portugal, 2014
- European Conference on Computational Intelligence for Risk Management, Security and Defence Applications, Granada, Spain, 2014
- International Conference on Pattern Recognition and Machine Intelligence, India, 2013
- International Conference on Information Systems Security, India, 2013
- International Conference on Availability, Reliability and Security, Germany, 2013
- IEEE Symposium on Computational Intelligence in Cyber Security, Singapore, 2013
- International Conference on Intelligence Fusion, Korea, 2013
- European Conference on Computational Intelligence for Risk Management, Security and Defence Applications, Austria, 2013
- International Conference on Image Analysis and Recognition, Portugal, 2013
- International Conference on Computer Vision Theory and Applications, Spain, 2013

PROFESSIONAL SOCIETY MEMBERSHIP:

Senior Member, IEEE

COMPLETE LIST OF PUBLICATIONS:

See <http://www.facweb.iitkgp.ernet.in/~shamik/publications.html>