NAME	**Dr UTPAL ROY**

PERSONAL
DETAILS

- Date of Birth: 2 January, 1963
- Nationality: Indian
- Sex: Male
- Marital Status: Married
- Research Website Links:
  Google Scholar Link:
  https://scholar.google.co.in/citations?user=h_k4tGAAAA
  AJ
  ResearchGate: https://www.researchgate.net/profile/Utpal-
  Roy-2
  Vidwan Link:
  https://vidwan.inflibnet.ac.in/profile/154427

CONTACT
INFORMATION

Address of Correspondence:
Department of Computer and System Sciences, Siksha-Bhavana, Visva-Bharati,
Santiniketan-731235,India
E-mail: utpal.roy@visva-bharati.ac.in, roy.utpal@gmail.com
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Fax: 03463-264783/262728

AFFILIATION

Department of Computer & System Sciences, Siksha-Bhavana, Visva-Bharati(Central
University), Santiniketan 731 235 (W.B.), INDIA

DESIGNATION

Professor and Former-Head in the Department of Computer and System Sciences
Formerly Professor in Information Technology, Assam University Silchar, Silchar,
Assam-788011 (Central University)

EDUCATION

Secured First Class in all Public and University Examinations.
Recipient of **CSIR senior research fellowship** 1992.

Ph.D. awarded in Feb. 1994

Dept of Mathematics, Visva-Bharati
Area: **Numerical Computation for the Solution of Some Quantum Mechanical
Problems.**

POST DOCTORAL	Universite Laval, Quebec Canada March, 1994 to Oct, 1995
VISITING SCIENTIST	Academia Sinica, Taipei, Taiwan Feb 2001 to Aug 2002
HONOUR TO NOTE	**The Chancellors Nominee,** 1. Department of IT, Jadavpur University, Kolkata, West Bengal. 2. A. K. Choudhury School of Information Technology, University of Calcutta, Kolkata, West Bengal. 3. Maulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal.
TEACHING EXPERIENCE	24 years (approx.)

COURSES TAUGHT

Post Graduate Level:

- M.C.A. (Master in Computer Application, AICTE approved),
- M.Sc. (Comp. Sc),
- PGDCA (Postgraduate Diploma in Computer Application),

Undergraduate Level:
- B.Sc. (Hons, in Comp. Sc.),
- Five Years Integrated Course in Physical Sciences,
- B.Tech. (IT))

RESEARCH EXPERIENCE

27 Years (approx.) (excluding the period of Ph.D.)

- **Number of Scholars already registered for Ph.D.: Five**
- **Number of Scholars awarded Ph.D. Degree: Three**

2015
Title of Thesis: Co-operative Transmission in Vehicular Ad-hoc Network (VANET)
Affiliation: The Department of Computer & System Sciences, Siksha-Bhavana, Institute of Science, Visva-Bharati, Santiniketan 731235,
Scholar: Dr. Bhaskar Das, Université de Moncton, Moncoton, CANADA

2010
Title of Thesis: Statistical and Neural models for colour image segmentation and their applications in text separation.
Affiliation: The Department of Computer & System Sciences, Siksha-Bhavana, Institute of Science, Visva-Bharati, Santiniketan 731235,

Scholar: Dr. Anandarup Roy, Assistant Professor, Sarojini Naidu college of Women, Dum-Dum, Kolkata-700028

2008
Title of Thesis: An Efficient Scheme for Recognition of Handwritten Bangla Words.
Affiliation: The Department of Computer & System Sciences, Siksha-Bhavana, Institute of Science, Visva-Bharati, Santiniketan 731235,
Scholar: Dr. Tapan Kumar Bhowmik, Data Scientist, Deep learning Scientist, Machine learning, Crop IN Technology Solutions Pvt. Ltd. Bangalore, KA

NUMBER OF PH.D. THESIS EXAMINED	1. Jadavpur University, Kolkata, West Bengal. 2. Fakir Mohan University, Balasore, Orissa. 3. Assam University, Silchar, Assam. 4. Rajiv Gandhi University, Doimukh, Arunachal Pradesh. 5. Bilaspur University, Bilaspur, Chhattisgarh. 6. Berhampur University, Berhampur, Odisha. 7. Burdwan University, West Bengal. 8. Utkal University, Bhubaneswar, Odisha.

RESEARCH PROJECT   : 02

Funding Agency: University Grant Commission
Title of the Project: Statistical Approach for Segmentation of Color Image and Its Application for Text Extraction from Color backgrounds.
Amount Sanctioned: Rs. 85,000/- (approx.)
Tenure: Two years (2008-2010)

Funding Agency: Department of Atomic Energy(DAE), Bhaba Atomic Research Centre (BARC), BRNS Project(February 2013).
Title of the Project: Development of Track Tracing and Track Finding Algorithm for Charged Particles Produced in High Energy Antiproton Collision Experiments.
Amount Sanctioned: Rs. 17.00 lakhs (approx.)
Tenure: Three Years (2013-2016).

EXPERIENCE OF GUIDING DISSERTATION/ PROJECT

- Dissertation in M.Sc. Level: 70 students
- Project in MCA Level: 30 students
- Project in M.Tech. (IT) level, Calcutta University: 3 students

FOREIGN EXPOSURE

1. Worked as Visiting Scientist in the Academia Sinica, Taipei, Taiwan from Feb 2001 to March 2002.

2. Worked as Post-doctoral Fellow at University Laval, Quebec, CANADA for more than one year.
3. Moscow, Russia, To Chair a Session and to present a paper in an International Conference on Pattern Recognition and Machine Intelligence, PReMI 2011.
4. Gold Coast Australia, to present a paper in 10th IAPR International Workshop DAS 2012 (Document Analysis and Systems 2012) during 25-29 March, 2012.

RESEARCH INTEREST	***Areas of Specialization***

(i) Handwritten Document Processing
(ii) Analysis of Color Image
(iii) Machine Learning
(iv) Quantum Computing
(v) Pattern Recognition
(vi) Scientific Computation
(vii) Keystroke Queries
(viii) Vehicular (Ad Hoc) Communication

Reviewer:
Journal:
1. Springer - Multimedia Tools and Applications (SCI IP 2.3)
2. ACM - Transactions on Asian and Low-Resource Language Information Processing, ACM, Mar, 2020.
3. IEEE Conferences and International Conferences.

Award and Recognition:
1. Invitation of Honour form the Editorial Desk to present Biographical profile in www.asianbiographies.in by RIFACIMENTO INTERNATIONAL, 2018
2. Winner of Marquis Who's Who, 2018.

ADMINISTRATIVE EXPERIENCE	6 years (as Head of the Department in two spells).

Head, Department of Computer & System Sciences, Visva-Bharati
from 19 September, 2002 to 18 July, 2007.

Head, Department of Computer & System Sciences, Visva-Bharati from 26th March, 2015 to till date. 26 March 2018

Major developments in the Department of Computer & System Sciences during my tenure:
- Introduction of M.Sc. Course in Computer Science
- Presentation of X plan proposal for the department and its execution.

- Presentation of our academic activities during the visit of AICTE Visiting team.
- Worked as e-mail administrator in the Computer Center, Visva-Bharati.
- Preparation of XI plan proposal for the department in front of UGC New Delhi, INDIA.
- Defended the Department during last NAAC visit

EXTERNAL MEMBER	1. Appointed as member of Academic Council in the Heritage Institute of Technology (HIT), Kolkata. 2. Conducted selection committee for the selection of Professor in IT, Department of IT, in Jadavpur University, Jadavpur, Kolkata 700 032. 3. Conducted a Ph.D. viva in the Dept. of Comp. Sc & Engineering. in Kalyani University, Kalyani, Nadia. 4. Board of Postgraduate Research Studies, Dept. of Comp. Sc. Assam University, Silchar, Assam. 5. Board of Postgraduate Research Studies, University of Gour Banga, Malda, West Bengal. 6. Member of Editorial Board in the 2nd International Conference on Artificial Intelligence and Computer Science-2014, Bandung, Indonesia 7. External Member of The Board of Studies, Department of Computer Science and Engineering, Gour Banga University, Malda, West Bengal. 8. Teaching assignment as Guest Faculty in the Department of Computer Science and Engineering, Tripura Central University, Agartala.
LIFE MEMBER	1. Indian Science Congress Association, Calcutta 2. Indian Statistical Institute, Kolkata, 203, B.T. Road, Kolkata, India 3. Indian Association for Cultivation of Science, Jadavpur, Kolkata. 4. Forum of Scientist, Engineers and Technologists, Kolkata 5. PANDA Collaboration since Nov. 2013. 6. Indian Unit for Pattern Recognition and Artificial Intelligence (Affiliated to International Association for Pattern Recognition) 7. Member, IAENG,
RESEARCH COLLABORATION	1. Collaboration with Computer Vision and Pattern Recognition (CVPR) Unit, Indian Statistical Institute Calcutta, Kolkata-108, INDIA 2. Collaboration with School of IT, IIT Kharagpur
WORKSHOP/ SEMINAR	I. "Keystroke Dynamics: A New Biometric for User Identification and Authentication", as resource person in Refresher Course in Emerging Trends in Science and Technology being conducted by the UGC – Human Resource Development Centre, The University of Burdwan from 08.09.2020 to 21.09.2020. On 14.09.2020.

II.   Delivered keynote speech in the 7th International Computer Information Technology and Business Intelligence (ITBI - 2015) held during 21-23 January, 2016 in Goa.

III.   Global Conference on "Recent Trends in Electronic Communication Engineering, Power and Control (ECEPC-2013) held in JNU during 7-8 September -2013" - Delivered keynote address & Chaired the Technical sessions III & IV.

IV.   Second International Conference on Computing and System-2013, ICCS-2013. 21-22 September, 2013 Univ. of Burdwan (Proceeding ISBN(13): 978-9-35-134273-1).

V.   8th Conference on Computer Vision, Graphics and Image Processing 2012 (ICVGIP 2012) held at IIT Bombay during 16-19 Dec. 2012.

VI.   The First International Conference on Intelligence Infrastructure CSI 2012, 47th Annual National Convention Computer Society of India 1-2 December, 2012.

VII.   10th IAPR Workshop in Document Analysis System 2012 (DAS 2012), held during March 27th -29th, 2012, Gold Coast, Queensland, Australia.

VIII.   UGC Sponsored National Conference on Research and Higher Education in Computer Science and Information Technology RHECSIT 2012.

IX.   Second National Conference on Computing and Systems – 2012, March 15-16, 2012, University of Burdwan, West Bengal.

X.   International Conference on Pattern Recognition and Machine Intelligence (PReMI-2011) held in National Research University and Higher School of Economics, MOSCOW, Russia during June 27 – 1 July, 2011, Delivered a Talk and Chaired a Session of the Conference.

XI.   5th International Conference of IMBIC (Institute for Mathematics, Bio-informatics, Information-Technology and Computer Science, Kolkata) December 18-20th, 2011.

XII.   First International Conference on Emerging Trends in Soft Computing and ICT, Bilaspur University, C.G 16-17 March, 2011.

XIII.   International Conference on Computing and Systems – 2010, Nov. 19-20, 2010.

XIV.   National Conference on Computing and System 2010, 29th January, 2010.

XV.   Seventh Conference on Computer Vision, Graphics and Image Processing 2010 (ICVGIP 2010), IIT Chennai , India. 12-15 Dec. 2010 (IEEE)[deliver a talk].

XVI.   IEEE National Conference in Computing and Communication System 2009(CoCosys 09), UIT Burdwan, 2 – 4 January, 2009.

XVII.   Sixth Conference on Computer Vision, Graphics and Image Processing 2008 (ICVGIP 2008), Bhubaneswar, India. 16-19 Dec. 2008(IEEE Kharagpur Section).

XVIII.   International Conference on Information Technology 2008, 17-20 December 2008, held in Xevier Institute of Management, Bhubaneswar.

XIX.   National Workshop on Contemporary Remote Sensing and GIS Software Application, Organized by CS and CSE Kalyani Govt. Engineering College, Sponsored by TEQIP June 27-July 01, 2007.

XX.		International Conferences in Pattern Recognition and Machine Intelligence (PReMI07) – 2007 held during December 18-22, 2007 in Indian Statistical Institute (ISI) Kolkata -108.
XXI.		Sixth International Conference on Advances in Pattern Recognition (ICAPR07) held at Indian Statistical Institute (ISI), Kolkata 108.
XXII.		III Refresher Course in Computer Science Academic Staff College, University of Burdwan, Golapbag, Burdwan 21 January, 2006 to 10 February, 2006.
XXIII.		Refresher Course- "Parallel and Distributed Technologies for High Performance Computing" – 3 Jan. 2005 to 22 January, 2005.
XXIV.		Winter School in Coding Theory at Applied Statistical Unit (ASU), Indian Statistical Institute, Kolkata 700 108 held during 29 December 2002 to 2 January, 2004.
XXV.		2nd International Workshop on Technology Development in Indian Languages (IWTDIL) organized by Computer Vision and Pattern Recognition (CVPR) Unit, Indian Statistical Institute, Kolkata 700108 during 22 – 24 January, 2003.
XXVI.		41st Orientation Programme, Academic Staff College, University of Burdwan from January 4 to 31 January, 2003.
XXVII.		Annual Meeting of Chinese Physical Society 22-24 Jan, 2002 held at Taipei, Taiwan.
XXVIII.		50th Conference of Canadian Association of Physicist, held at Universite Laval, Quebec, Canada, G1K 3P4 May 1995.

CONDUCTING SEMINAR	(i)	Data Security in the Department during 11 to 12 December, 2004(Professor Susil Jojerdia, George Mason Univ. VA, USA & Prof. Aditya Bagchi, ISI, Kolkata - 108).
	(ii)	Parallel Architecture and Parallel Sorting: Speaker Prof. B. P. Sinha, ISI Kolkata, India
	(iii)	Quantum Information: Speaker: Prof. G P Kar, AMU, ISI Kolkata, India.

EXPERIENCE AS PAPER SETTER, MODERATOR AND EXAMINER	● Burdwan University, West Bengal, ● North Bengal University, West Bengal, ● National Institute of Technology, Durgapur, West Bengal ● Assam University Silchar, Assam. ● Tripura University, Tripura, ● Gour Banga University, Malda, West Bengal.

GUEST FACULTY	● Assam University Silchar, Assam. ● Tripura University, Tripura ● Rajib Gandhi University, Itanagar ● University of Gour Banga, Malda

INVITED TALK

1. Invited Talk, "Keystroke Dynamics: A New Biometric for User Identification and Authentication", as resource person in Refresher Course in Emerging Trends in Science and Technology being conducted by the UGC – Human Resource Development Centre, The University of Burdwan from 08.09.2020 to 21.09.2020. On 14.09.2020.

2. Invited Lecture on Key Stroke Dynamics: Issues and Challenges in the International One-Week Online Lecture Series on "Trends in Artificial Intelligence & Machine Learning" on 19th July 2020 organized by the Department of Computer Application, North Orissa University.

3. Invited Lecture in Webinar, "Internet of things: Research trends and user authentication issues", A State level webnair - Organized by The Department of Computer Science, Computer Application and IQAC Sarojini Naidu college of Women, Dum Dum, Kolkata, 15 July, 2020.

4. Invited Talk, "To take part in the discussion program on National Cyber Security Awareness", Web broadcast Program for common people from Durdarshan Santiniketan : Akashvani / All India Radio/ Doordarshan, Place of Broadcast : DD-Bangla. Date : 12.10.2020

5. Keynote Talk - IEEE-National Conference on Emerging Trends on Sustainable Technology and Engineering Applications 2020 7-8 February, B C Roy Engineering College, Durgapur, 2020.

6. Invited Talk - Keystroke Dynamics and Its Applications to Information Technology, VIT, Vellore-632014, Tamil Nadu, India, 31st Jan. 2020.

7. Delivered keynote address & Chaired the Technical sessions - Global Conference on "Recent Trends in Electronic Communication Engineering, Power and Control (ECEPC-2013) held in JNU during 7-8 September -2013" - Delivered keynote address & Chaired the Technical sessions III & IV

8. Inauguration Presentation in the Global Conference on Recent Trends in Electronic Communication Engineering Power and Control (ECEPC-2013), Organised by Krishi Sanskriti during 7-8 September, 2013 at Jawaharlal Nehru University, New Delhi-110067.

9. Invited talk and Chaired the session in a National Workshop on AI "Advanced Optimization Techniques (STACOT-2013)" organized by the Department of Mathematics, National Institute of Technology Durgapur during 13 - 17 November, 2013.

10. Keynote Speech in the UGC Sponsored National Seminar on AI and Its Impact on Modern IT World held at Gour Banga MahaVidyalaya(under Gour Banga University) during 6-7 December, 2013.

11. Invited Talk - School of Technology, Assam University Silchar, Assam, "Security on Bio-Metrics"

12. Invited Talk - Dept. of Computer Science and Engineering, Rajib Gandhi University, Arunachal Pradesh. "Routing Protocol in VAVET"

13. Invited Talk - D.P. Bipra College, Gurugashidas Viswavidalaya, Bilaspur, CG: "Techniques on Color Image processing and its applications".

14. Invited Talk - Kalyan P.G. Autonomous College, BHILAI (C.G.), "Emerging Techniques in Computer Science"

LIST OF
PUBLICATIONS

1. Soumen Roy, Debdatta Sinha and Utpal Roy, "Identifying age group and gender based on activities on touch screen", International Journal of Biometrics (an Inderscience Entp. Ltd.) 2021, (in press) (ESCI), 2021.
2. J. Mukherjee and U. Roy, "Recognition of Degraded Bangla Documents Using Hybrid Deep Neural Network Model," 2021 International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE), 2021, pp. 254-259, doi: 10.1109/ ICACITE51222. 2021.9404691. IEEE Explore, 2021.
3. Jayati Mukherjee, Swapan K. Parui, Utpal Roy, "An Unsupervised and Robust Line and Word Segmentation Method for Handwritten and Degraded Printed Documents", ACM Tallip, ISSN 2375-4699. (Communicated and revised), 2021
4. Jayati Mukherjee, Swapan K. Parui, Utpal Roy, "NN based analytic approach to symbol level recognition for degraded Bangla printed documents", Sadhana journal (SCIE), Pp. 1-22, Vol-45, Issue-1, Dec 2020, ISSN- e256-2499, 2020.
5. Roy S., Roy U., Sinha D.D. (2020), "Deep Learning Approach in Predicting Personal Traits Based on the Way User Type on Touchscreen", In: Das A., Nayak J., Naik B., Pati S., Pelusi D. (eds) Computational Intelligence in Pattern Recognition. Advances in Intelligent Systems and Computing, vol 999. Springer, Singapore, 2020.
6. Soumen Roy, Utpal Roy and D D Sinha, (2020), "A New Version of Keystroke Dynamics", (Accepted and under process), Publisher - IGI Global, 2020.
7. Susmita Nayek, Utpal Roy, "Quantum Mechanics Inside Quantum Communication and Quantum Bit Error Rate(QBER)", International Journal of Computer Sciences and Engineering, Vol-7, Issue-1, Page 237-244. 2019.
8. Debjyoti Ghosh, Utpal Roy, "Brain Tumour Detection from MRI Image Using Deep Learning", International Journal of Computer Sciences and Engineering, Vol-7, Issue-1, Page 142-149. 2020.
9. Debjyoti Ghosh, Soumen Roy, Utpal Roy, D. D. Sinha, "Gait Identity Verification Using Equipped Smartphone Sensors", National Conference on Emerging Trends on Sustainable Technology and Engineering Applications, 7-8 February, 2020.
10. Jayati Mukherjee, Swapan K. Parui, Utpal Roy, "Degraded Bangla Character Recognition by k-NN Classifier", International Journal of Computer Sciences and Engineering, Pages 42-47, Vol.-7, Issue-1, Jan 2019, E-ISSN: 2347-2693, 2019.
11. Roy, S., Roy, Utpal & Sinha, D.D., "The probability of predicting personality traits by the way user types on touch screen", Innovations System Software Engineering 15, 27–34, 2019.
12. S. Roy, U. Roy, D.D. Sinha, "Feasibility of Predicting Soft Biometric Traits Based on Keystroke Dynamics Characteristics", International Journal of Computer Sciences and Engineering, Vol-7, Issue-1, Page 150-157, 2019.
13. S. Roy, U. Roy, D.D. Sinha, "Feasibility of Predicting Soft Biometric Traits Based on Keystroke Dynamics Characteristics", 1st International Conference on Innovation in Computer Science (ICICS–2018), 21-22, December 2018.

14. Debjyoti Ghosh, Utpal Roy, "Brain Tumor Detection from MRI Image Using Deep Learning", 1st International Conference on Innovation in Computer Science (ICICS–2018), 21-22, December 2018.

15. Jayati Mukherjee, S. K. Parui, Utpal Roy, "Degraded Bangla Character Recognition by k- NN Classifier", 1st International Conference on Innovation in Computer Science (ICICS–2018), 21-22, December 2018.

16. Susmita Nayek, Utpal Roy, "Quantum Mechanics Inside Quantum Communication and Quantum Bit Error Rate (QBER)", 1st International Conference on Innovation in Computer Science (ICICS–2018), 21-22 December 2018.

17. A Mitra, D P Acharjya and Utpal Roy (Editors for Special issue on): Behavioral Analytics and its Application in Management Decision Making, (in) International Journal of Business Analytics (an ESCI, Scopus indexed Journal), IGI Global, USA, Vol-6, Issue-2, 2018

18. S. Roy, U. Roy, D.D. Sinha, "Typing Pattern in Identifying Soft Biometric Information and Its Impact in User Recognition", Proceedings of Information Technology and Applied Mathematics ICITAM 2017, Haldia. Advances in Intelligent Systems and Computing, ISSN 2194-5357, Springer, March 2018.

19. S. Roy, U. Roy, D.D. Sinha, "Identifying Soft Biometric Traits through Typing Pattern on Touchscreen Phone," Proceedings of Social Transformation-Digital Way CSI 2017, Kolkata. CCIS Springer Series, 2018.

20. S. Roy, U. Roy, D.D. Sinha, "Protection of Kids from Internet Threats: A Machine Learning Approach for Classification of Age-group Based on Typing Pattern ", Proceedings of the International Multi Conference of Engineers and Computer Scientists 2018 Vol I,IMECS 2018, March 14-16, 2018, Hong Kong, ISBN: 978-988-14047-8-7, 2018.

21. Soumen Saha, Utpal Roy, Devadutta Sinha, "Re-broadcast AODV (reAODV) Based Routing Protocol Modification Over AODV for VANET In City Scenario", ICITAM2017, An International Journal of Natural Computing Research (IJNCR) ISSN (online) 2319-7064(DBLP indexed), Jan 2018.

22. S. Roy, U. Roy, D.D. Sinha, "ACO-Random Forest Approach to Protect the Kids from Internet Threats through Keystroke", International Journal of Engineering and Technology, Vol 9 No 3S July, 2017 ISSN 0975-4024 (UGC Approved), 2017.

23. S. Roy, U. Roy, D.D. Sinha, "Efficacy of Typing Pattern Analysis in Identifying Soft Biometric Information and Its Impact in User Recognition". In: Battiato S., Farinella G., Leo M., Gallo G. (eds) New Trends in Image Analysis and Processing – ICIAP 2017. ICIAP 2017, Catania, Italy, 11-15 Sept, 2017. Lecture Notes in Computer Science, vol 10590. Pp320-330, Springer, Cham, 2017, ISBN: 978-3-319-70741-9, 2017.

24. S. Roy, U. Roy, D.D. Sinha, "User Authentication: Keystroke Dynamics with Soft Biometric Features", Internet of Things (IOT) Technologies, Applications, Challenges and Solutions, CRC Press Taylor & Francis Group, Boca Raton, FL 33487-2742, Chapter 6, ISBN: 978-1-138-03500-3, 2017.

25. Soumen Saha, Utpal Roy, Devadutta Sinha, "Modified AODV with double ended queue (dqAODV) with reduced overhead", Advances in Wireless and Mobile Communications., Volume 10, Number 5, pp. 1081-1095, 2017.

26. S. Roy, U. Roy, D.D. Sinha, "ACO-Random Forest Approach to Protect the Kids from Internet Threats through Keystroke", International Journal of Engineering and Technology, ISSN 0975-4024 (UGC Approved), 2017.

27. S. Roy, U. Roy, D.D. Sinha, "User Authentication: Keystroke Dynamics with Soft Biometric Features", Internet of Things (IOT) Technologies, Applications, Challenges and Solutions, CRC Press Taylor & Francis Group, Boca Raton, FL 33487-2742, Chapter 6, ISBN: 978-1-138-03500-3, 2017(Feb), 2017.

28. Soumen Saha, Utpal Roy, Devadutta Sinha, "Modified AODV with double ended queue(dqAODV) with reduced overhead", Advances in Wireless and Mobile Communications. , Volume 10, Number 5, pp. 1081-1095, 2017.

29. B. Das, S. Misra and U. Roy, "Coalition Formation for Cooperative Service-based Message Sharing in Vehicular Ad Hoc Networks," IEEE Transactions on Parallel and Distributed Systems, Vol. 27, No. 1, pp. 144-156, 2016.

30. Anandarup Roy, Swapan K Parui and U.Roy, "SWGMM: a semi-wrapped Gaussian mixture model for clustering of circular–linear data" Journal of Pattern Analysis and Applications (Publisher Springer London) Vol. 19, Issue 3, Page-631-645(2016).

31. S. Roy, U. Roy, D.D. Sinha, "Security Enhancement of Knowledge-based User Authentication through Keystroke Dynamics", MATEC Web of Conferences, ICAET 2016, May 2016.

32. S. Roy, U. Roy, D.D. Sinha, "Various Statistic, Distance and Data-mining Based Classifiers on Rhythmic Keystroke Database", Third International Conference on Computing and Systems 2016, ICCS 2016, University of Burdwan, Burdwan, Jan, 2016, pp. 226-232, ISBN: 978-93-85777-13-4, 2016.

33. T K Bhowmik, S. K Parui, Utpal Roy, L. Shomekar, "Bangla Handwritten Character Segmentation using Structural Features: A Supervised and Bootstrapping Approach," ACM Transaction on Asian Low-Resource Language Information Processing (TALLIP), 2016, Manuscript ID: TALLIP-15-0020.R2.

34. Bhaskar Das and Utpal Roy, "Cooperative Load Sharing for Service-based Message in Vehicular Ad Hoc Networks (VANETs)," Proceedings of Third International Conference on Computing and Systems, pp. 102-104, Jan 2016.

35. Soumen Roy, Utpal Roy, Devadatta Sinha "Cooperative Load Sharing for Service-based Message in Vehicular Ad Hoc Networks (VANETs)," Proceedings of Third International Conference on Computing and Systems, pp. 226-232, Jan 2016.

36. S. Roy, U. Roy, D.D. Sinha, "Performance Evaluation of Various Distance-based Data-Mining Classifiers on Typing Patterns for User Authentication / Identification", International Journal of Innovative Research & Development (IJIRD), Jan -2016, Vol. 5, Issue 2, ISSN: 2778-0211.

37. Soumen Saha, Utpal Roy, Devadutta Sinha, "Comparison of Stack implemented AODV(ai-sAODV) with queue implemented AODV (ai-dqAODV) for VANET in signal fading scenario," Proceedings of 7th International Conference on Information Technology and Business Inelegance, ITBT 2015, 21 to 23 Jan 2016, IJIRD , Vol-5, Issue-2,pp 83-89.

38. S. Roy, U. Roy, D.D. Sinha, "Password Recovery Mechanism Based on Keystroke Dynamics", Proceedings of Second International Conference INDIA 2015,

Volume 1, Springer India, Advances in Intelligent Systems and Computing, ISSN 2194-5357, ISBN 978-81-322-2249-1, pp. 245-257.

39. S. Roy, U. Roy, D.D. Sinha, "Comparative Study of Various Features-Mining-Based Classifiers in Different Keystroke Dynamics Datasets", Smart Innovation, Systems and Technologies (SIST), Springer, Nov -2015, ISSN: 2190-3018.

40. S. Roy, U. Roy, D.D. Sinha, "Performance Perspective of Different Classifiers on Different Keystroke Datasets", International Journal of New Technologies in Science and Engineering (IJNTSE), Volume-02, Issue-04, Page No (64-73), Oct -2015, ISSN: 2349-0780.

41. S. Roy, U. Roy, D.D. Sinha, "Distance Based Models of Keystroke Dynamics User Authentication", International Journal of Advanced Engineering Research and Science (IJAERS), Volume-02, Issue-09, Page No (89-94), Sep -2015, ISSN: 2349-6495.

42. S. Roy, U. Roy, D.D. Sinha, "Text-based Analysis of Keystroke Dynamics in User Authentication", International Journal of Computer Sciences and Engineering, Volume-03, Issue-01, Page No (165-173), Feb -2015, E-ISSN: 2347-2693.

43. Soumen Saha, Utpal Roy, Devadutta Sinha, "Aplication of RREQ Packet In Modified AODV(m-AODV) In The Contest Of VANET", Computational Intelligence in Data Mining - Volume 1, Smart Innovation, Systems and Technologies , Springer publication, Volume 31, 2015, pp 489-502

44. Soumen Saha, Utpal Roy, Devadutta Sinha, "Performance comparison of DSR, AODV, dqAODV Ad-Hoc routing protocols of VANET in city scenario," Proceedings of ICSS 2015, Burdwan, 2015.

45. Soumen Saha, Utpal Roy, Devadutta Sinha "Neural Network Based Modified AODV Routing Protocol in VANET", European Journal of Advances in Engineering and Technology, 2(10): 1-9, 2015.

46. S. Nayek, U. Roy and B. Das, "Quantum Network Formulation Game among Cooperative Nodes in Vehicular Ad-hoc Network (VANET)", 7th International conference on IT & Intelligence (ITBI), 2015.

47. Soumen Saha, Utpal Roy, Devadutta Sinha, "AODV Routing Protocol Modification with Dqueue (dqAODV) and Optimization with Neural Network for VANET in City Scenarios," Proceedings of International Conference AICS2015, Malaysia, 2015.

48. B. Das and U. Roy, "Cooperative Quantum Key Distribution for Cooperative Service-Message Passing in Vehicular Ad Hoc Networks," International Journal of Computer Applications, Volume 102, Number 16, pp. 37-42, September, 2014.

49. S. Saha, U. Roy and D.D. Sinha, "Performance Comparison of Various Ad-Hoc Routing Protocols of VANET in Indian City Scenario," American International Journal of Research in Science, Technology, Engineering and Mathematics(AIJRSTEM), (ISSN(Online):2328-3580), Issue 5, Volume 1, Feb 2014, pp. 49-54.

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