

## **Profile of Professor Utpal Roy**

**1. (i) Name : Dr. UTPAL ROY; (ii) Nationality: Indian, (iii) Sex: Male**

**2. Date of Birth: 2 January, 1963.**

**3. Designation : Professor & Head**

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

**Former Professor in IT**

**Department of Information Technology  
School of Technology, Assam University Silchar  
Silchar, Assam.**

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

**E-mail: [utpal.roy@visva-bharati.ac.in](mailto:utpal.roy@visva-bharati.ac.in), [roy.utpal@gmail.com](mailto:roy.utpal@gmail.com)**

**5. Number of Scholar awarded Ph.D degree : Two**

**1. Dr. Tapan Kumar Bhowmik, MCA (Visva-Bharati) (First Ph.D. scholar of the Department) (2009, Dec.)**

- i. 1<sup>st</sup> PDF : Faculty of Mathematics and Natural Sciences, University of Groningen, The Netherlands.
- ii. 2<sup>nd</sup> PDF: Litis EA 4108, Universite de Rouen, France
- iii. Present : Universite de Lorraine, Nancy , France

**2. Dr. Anandarup Roy, M.Sc.(Visva-Bharai), Ph.D.(2014) worked as a Senior Research Fellow CSIR.(PDF at Universite of Montreal, CANADA)**

**6. Number of Registered Ph.D. Scholars Associated at present: Five**

**7. Number of External Ph.D. Thesis Examined : 12**

**8. Number of External Ph.D. Thesis Examined and Viva Conducted : Five**

- 1. Dept. of Comp. Sc. & Engg. Jadavpur Univ. Kolkata -32- two
- 2. Dept. of Comp. Sc. & Engg. Fakir Mohan Univ. Balasore – One
- 3. Dept. of Comp. Sc., Assam Univ. Silchar –One
- 4. Dept of Com. Sc., Berhampur Univ. , Berhampur, Odisha - One

**9. Number of One going Research project : One**

Funding Agency: Board of Research in Nuclear Science (BRNS),  
Department of Atomic Energy(DAE)

Development of Track Tracing and Track Finding Algorithm for Charged Particles Produced in High Energy Antiproton Collision Experiments

**10. Number of Research Project Completed: One**

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.**

Tenure of the Project: **Two years (2008-2010)**

## **11. Foreign Exposure:**

(i) **Worked as Visiting Scientist in the Academia Sinica, Taipei, Taiwan from Feb 2001 to March 2002.**

(ii) **Worked as Post-doctoral Fellow at Universite Laval, Quebec, CANADA for more than one year starting from 24 April, 1994.**

(iii ) **Moscow, Russia, To Chair a Session and to present a paper in an International Conference on Pattern Recognition and Machine Intelligence, PReMI 2011.**

(iv) **Gold Coast Australia, to Present a paper in 10<sup>th</sup> IAPR International Workshop DAS 2012( Document Analysis and Systems 2012) during 25-29 March, 2012.**

## **12. Teaching Experience:**

- MCA( Master in Computer Application, AICTE approved),
- M,Sc.(Comp. Sc),
- PGDCA(Postgraduate Diploma in Computer Application),
- B.Sc.(Hons, in Comp. Sc.),
- B.Tech(IT).

## **13. Experience of Guiding Dissertation/Project.**

- Dissertation in M.Sc. Level : 40 students
- Project in The MCA Level : 30 students
- Project in the M.Tech(IT) level, Calcutta University: 3 students

## **14. Academic Distinctions**

- i. **External member of the Research Board, Gurugashi Das University, Bilashpur, CG**
- ii. **Delivered keynote address and Chaired the Technical Sessions Global Conference on Recent Trends in Electronic Communication Engineering, Power and Control(ECEPC-2013) held in JNU (New Delhi) during 7-8 September -2013.**
- iii. **Chaired a Technical Session 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.**
- iv. **Member PANDA-India Collaboration(Under BARC)**
  - v. **IAPR( Indian UNIT for Pattern Recognition and Machine Intelligence): Life Member L090.**
  - vi. **Indian Science Congress Association, Calcutta, India Life Member L19270**
  - vii. **Indian Statistical Institute, Kolkata, 203, B.T. Road, Kol-108; L8210**
  - viii. **Indian Association for Cultivation of Science, Jadavpur, Kolkata-700 032. L1790**
  - ix. **Recipient of CSIR Senior Fellowship (1991-1993)**

## 21. Invited Talk:

- 1. **School of Technology, Assam University Silchar, Assam : Security on Bio-Metrics”**
- 2. **Dept. of Computer Science and Engg., Rajib Gandhi University, Arunachal Pradesh. “ Routing Protocol in VAVET”**
- 3. **D.P. Bipra College, Gurugashidas Viswavidalaya, Bilaspur, CG : “ Techniques on Color Image processing and its applications”.**
- 4. **Kalyan P.G. Autonomous College, BHILAI (C.G.) : “ Emerging Techniques in Computer Science”**

## 15. Administrative Experience:

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

**(Major developments in the Department of Computer & System Sciences during my tenure as Head)**

- 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.
- Construction of New Building During my Tenure.
- Preparation of XI plan proposal for the department in front of UGC New Delhi, INDIA.

## 16. External Member:

- i. **Board of Post Graduate Research Studies, Dept. of Comp. Sc. Assam University, Silchar, Assam. ,**
- ii. **Board of Postgraduate Studies, University of Gour Banga, Malda, West Bengal.**

## 22. Workshop, Seminar etc.

**School, Course and Seminar/Conference attended**

- I. **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.**
- II. **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)**

- III. **8<sup>th</sup> Conference on Computer Vision, Graphics and Image Processing 2012 (ICVGIP 2012) held at IIT Bombay during 16-19 Dec. 2012.**
- IV. **The First International Conference on Intelligence Infrastructure CSI 2012, 47<sup>th</sup> Annual National Convention Computer Society of India 1-2 December, 2012.**
- V. **10<sup>th</sup> IAPR Workshop in Document Analysis System 2012 (DAS 2012) , held during March 27<sup>th</sup> -29<sup>th</sup> , 2012, Gold Coast, Queensland, Australia.**
- VI. **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.**
- VII. **UGC Sponsored National Conference on Research and Higher Education in Computer Science and Information Technology RHECSIT 2012.**
- VIII. **Second National Conference on Computing and Systems – 2012, March 15-16, 2012, The University of Burdwan, West Bengal.**
- IX. **International Conference on Computing and Systems – 2010, Nov. 19-20, 2010**
- X. **National Conference on Computing and System 2010, 29<sup>th</sup> January, 2010.**
- XI. **5<sup>th</sup> International Conference of IMBIC (Institute for Mathematics, Bio-informatics, Information-Technology and Computer Science, Kolkata) December 18-20<sup>th</sup>, 2011.**
- XII. **First International Conference on Emerging Trends in Soft Computing and ICT, Bilaspur University, C.G 16-17 March, 2011.**
- XIII. **Seventh Conference on Computer Vision, Graphics and Image Processing 2010 (ICVGIP 2010), IIT Chennai , India. 12-15 Dec. 2010 (IEEE)[deliver a talk].**
- XIV. **Sixth Conference on Computer Vision, Graphics and Image Processing 2008 (ICVGIP 2008), Bhubaneswar, India. 16-19 Dec. 2008(IEEE Kharagpur Section).**
- XV. **IEEE National Conference in Computing and Communication System 2009(CoCosys 09), UIT Burdwan, 2 – 4 January, 2009.**
- XVI. **International Conference on Information Technology 2008, 17-20 December 2008, held in Xevier Institute of Management, Bhubaneswar.**

- XVII. National Workshop on **Contemporary Remote Sensing and GIS Software Application**, Organized by CS and CSE Kalyani Govt. Engg College, Sponsored by TEQIP June 27-July 01.
- XVIII. **International Conferences in Pattern Recognition and Machine Intelligence(PReMI07) – 2007** held during December 18-22, 2007 in Indian Statistical Institute(ISI) Kolkata -108.
- XIX. **Sixth International Conference on Advances in Pattern Recognition(ICAPR07) held at Indian Statistical Institute(ISI), Kolkata 108.**
- XX. **III Refresher Course in Computer Science** Academic Staff College, University of Burdwan, Golapbag, Burdwan 21 January, 2006 to 10 February, 2006.
- XXI. Refresher Course- **“Parallel and Distributed Technologies for High Performance Computing”** – 3 Jan. 2005 to 22 January, 2005.
- XXII. 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.
- XXIII. **2<sup>nd</sup> 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.
- XXIV. **41<sup>st</sup> Orientation Programme, Academic Staff College**, University of Burdwan from January 4 to 31 January, 2003.
- XXV. **Annual Meeting of Chinese Physical Society 22-24 Jan, 2002** held at Taipei, Taiwan.
- XXVI. **50<sup>th</sup> Conference of Canadian Association of Physicist**, held at Universite Laval, Quebec, Canada, G1K 3P4 May 1995 .

### 23. 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.

**24. Experience as Paper Setter, Moderator and Examiner of**

- **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.**

**25. Served as Guest Faculty**

- **Assam University Silchar, Assam.**
- **Tripura University, Tripura**
- **Rajib Gandhi University, Itanagar**

**26. Administrative Experience:**

Presently: Head, Dept of Computer & System Sciences, Sikaha-Bhavana, Visva-Bharati.

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

**Major developments in the Department of Computer & System Sciences during my tenure:**

- Introduction of M.Sc. Course in Computer Science
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- 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.



## 27. List of Publications:

1. 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.
2. 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.
3. S. Roy, U. Roy, D.D. Sinha, "Free-text User Authentication Technique through Keystroke Dynamics", *IEEE International Conference on High Performance Computing & Application (ICHPCA-2014)*, **IEEE**, ISBN 978-1-4799-5957-0, 22-24 Dec. 2014, pp. 1 - 6.

4. S. Saha, U. Roy and Devadutta Sinha, Application 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)Volume 31, 2015, pp 489-502
5. S. Saha, U. Roy and Devadutta Sinha AODV ROUTING PROTOCOL MODIFICATION WITH DQUEUE(dqAODV) FOR VANET IN CITY SCENARIOS; ICHPCA-2014, Bhubaneswar, India, pp 1-6, IEEE Xplore Digital Library, December 22-24, 2014, ISBN : 978-1-4799-5957-0;
6. S. Saha, U. Roy and Devadutta Sinha “Neural Network Based Modified AODV Routing Protocol in VANET” submitted at ReTIS-15, Jadavpur, (IEEE conference)
7. **International Conference on Recent Trends in Science and Technology: 27-29 Dec, 2013(College of Engineering and Management Kolaghat, WB), Modified Knowledge-based User Authentication Technique- -Soumen Roy, Utpal Roy, D. D. Sinha(accepted)**
8. **International Conference on Recent Trends in Science and Technology: 27-29 Dec, 2013 (College of Engineering and Management Kolaghat, WB),The Quantum Genetic Algorithm(QGA) : An optimization Technique, Utpal Roy and Sudarsan Roy(accepted)**
9. Bhaskar Das, Sudip Misra, Utpal Roy, and Mohammad S. Obaidat, “Dynamic Relay Selection for MAC-level Retransmission in Vehicular Ad Hoc Networks,” **Global Telecommunications Conference (GLOBECOM 2013), 2013** (to be published in IEEE Explorer) , 9-13 Dec. 2013, Atlanta, US, (Accepted).
10. VANET Simulation in Different City Scenario, Soumen Saha, Dr. Utpal Roy and D D Sinha, **International Journal of Advances in Electronic and Electronic Engineering**, (ISSN 2231-1297), Vol.3, No. 9, pp1219-1226.
11. Comparative Study of Ad-Hoc Protocols in MANET and VANET , **International Journal of Advances in Electronic and Electronic Engineering**, (ISSN 2231-1297), Vol.3, No. 8, pp1083-1096.
12. A Pair-copula Based Scheme for Text Extraction from Digital Images : Anandarup Roy, S K Parui and Utpal Roy, submitted in 19<sup>th</sup> International Conference in Document Analysis and Recognition -2013(**ICDAR 2013**).
13. **Lexicon Reduction Technique for Bangle Handwriting Word Recognition-** T K Bhowmik, U. Roy and S K Parui; IEEE Computer Society

(CPS) 10<sup>th</sup> IAPR Workshop in Document Analysis System 2012 (DAS 2012) , held during March 27<sup>th</sup> -29<sup>th</sup> , 2012, Gold Coast, Queensland, Australia. Bound volume ISBN No. 13:978-0-7695-4661-2, Page 196.

14. SWGMM: A Semi-Wrapped Gaussian Mixture Model for Color Image Segmentation: A. Roy, S.K. Parui and Utpal Roy ; The Computer Journal(revised version has been submitted)
15. Parameter Learning of a Mixture of Bivariate Circular-Linear Distributions and its Applications, A. Roy, S K Parui and U. Roy; International Journal of Pattern Recognition and Artificial Intelligence(Submitted Nov. 2012)
16. Numerical Simulation of Plankton Dynamics in the Gulf of Kutch- **B.Das and U. Roy** , IGARSS 2013, **International Geosciences and Remote Sensing Symposium**, to held at 21-26, July, 2013(IEEE Xplore)
17. Performance Analysis of VANET Scenario in Ad-Hoc network by NCTUNS Simulators, S. Saha, U. Roy, D.D. Sinha; **International Journal of Information and Computational Technology (IJICT)**, Vol 3, No.7, p575, 2013.
18. **A Finite Mixture Model Based on Pair-Copula Construction of Multivariate Distributions and its Application to Color Image Segmentation–ICVGIP 2012**, A. Roy, S K Parui and U. Roy,(**The Eight Indian Conference on Vision, Graphics and Image Processing-2012, ACM Digital Library**).
19. **“A Simple Approach to E-Content Management and Delivery in Digital Library”**, U. Roy, Achintya K. Mandal, A. C. Mondal, **The IUP Journal of Information Technology, [ISSN 0973-2896]**, Vol. VIII, No. 1, March 2012, pp. 7-21,
20. **“An efficient Approach for E-Content Management and Delivery in Digital Library”**, Achintya K. Mandal, U. Roy, **World Digital Libraries[ISSN No.: 0974 – 567X]**, Vol. 5, Issue-1, June 2012, pp. 1-10.
21. **Secured Geocast Routing in VANET (Vehicular Ad-Hoc Network) with two Stage Efficient Communication Protocol-** B. Das and U Roy, **International Journal Computer Application [ 973-93-80870-40-8 ]**, Vol-53, NO. 12 p34-38
22. **“Partial Temporal Ordering in Distributed Network”** - S Saha and U Roy, **International Journal Computer Application [ISSN No. 973-93-80870-40-8]** Vol-53, No.12, Page 19.

23. “ **Accident Avoidance System in VANET Using Mobile Communication**” , B. Das and U Roy , *International Journal of Information and Communication Technology*, [ISSN 0974-2255]. *Vol-2*, No.-3, 2012, pp-355-358
24. “**A Mixture Model of Circular-Linear Distributions for Color Image Segmentation**” - A. Roy, S K Parui and U Roy, *International Journal of Computer Application [ ISSN 973-93-80870-39-1]*, Vol- 58, No-9, p-6.
25. **The Digital Age and the Librarian**, *Utpal Roy and Achintya K. Mandl*, Proceedings of National Conference on Beyond Librarianship: Search for New Frontier (NCBLSNF 2012)[ ISBN No. 978-93-81583-60-9], pp 128.
26. **Intelligent Road Traffic Control Using Multi-Level Feedback Queue**, Soumen Roy, Utpal Roy and Debdatta Sinha, Proceedings of First International Conference on Intelligent Infrastructure( **47th Annual Convention of Computer Society of India, CSI\_2012, IEEE**)TMH Education Private Limited, Page p111, (ISBN-13:978-1-25-908170-7, ISBN-10: 1-25-906170-1)
27. **Color Image segmentation Using Graph Theoretic Approach**, Utpal Roy, Achintya K Mandal and Anandarup Roy, : **6<sup>th</sup> International Conference on Mathematical Sciences and Information Technology, 21-23 December, 2012**(Accepted for Oral Presentation) .
28. **Classical and Quantum Steganography**, Utpal Roy and Susmita Nayek,: **Proceeding of National Seminar on Intellectual Property Rights and Patent Laws(IPRPL-2012), P.90 .**
29. **SWGMM: A Semi-Wrapped Gaussian Mixture Model for Color Image Segmentation**, A. Roy, S. K. Parui and U. Roy, **The computer Journal (Oxford)**.
30. **Parameter Learning of a Mixture of Bivariate Circular-Linear Distributions**; Anandarup Roy, Swapan K Parui, Utpal Roy, **Signal Processing Journal; Elsevier(Submited)**
31. **Agile Software Development Methodology and its Cost Estimation Technique: National Journal of System and Information Technology**(ISSN No. 0974-3380) Utpal Roy and Susmita Das, **Page 209-225**.

32. **ADOV Routing Protocol Is the Most Useful Routing Protocol in VANET Communications: P K Bhattacharjee and Utpal Roy, Proceeding 2<sup>nd</sup> National Conference on Computing and Systems-2012(ISBN No. 93-80813-18-X) page-1.**
33. **Development of Collision avoidance Algorithm in VANET (Vehicular Ad-hoc Network); Bhaskar Das and Utpal Roy, Proceeding 2<sup>nd</sup> National Conference on Computing and Systems-2012(ISBN No. 93-80813-18-X) page 252.**
34. **Underlying Physics of Quantum Cryptography; Susmita Nayek and Utpal Roy, Proceeding 2<sup>nd</sup> National Conference on Computing and Systems-2012(ISBN No. 93-80813-18-X) page 248.**
35. **Agile Software Development Methodology and Its advances in Quality Assurance; Susmita Das and Utpal Roy, Proceeding 2<sup>nd</sup> National Conference on Computing and Systems-2012(ISBN No. 93-80813-18-X) page-81.**
36. **Partial temporal Ordering in Distributed Ad-Hoc Network, Soumen Saha and Utpal Roy, Proceeding 2<sup>nd</sup> National Conference on Computing and Systems-2012(ISBN No. 93-80813-18-X) Page-289.**
37. **Application of Hidden Markov Model for Handwriting Character Recognition; Utpal Roy, T K Bhowmik and S K Parui, Proceeding of UGC Sponsored National Conference on Research and Higher Education in Computer Science and Information Technology(ISBN 978-81-923820-0-5) Page-133.**
38. **Collision Warning System with monitoring Traffic in VANET using mobile communication with Android based devices based on geocast routing protocol on Indian highway scenario; Bhaskar Das and Utpal Roy, Proceeding of UGC Sponsored National Conference on Research and Higher Education in Computer Science and Information Technology(ISBN 978-81-923820-0-5) Page-63.**
39. **Color Image Segmentation Using a Semi-Wrapped Gaussian Mixture Model-A. Roy, S.K. Parui, D. Nandi, Utpal Roy, Pattern Recognition and Machine Intelligence - 4th International Conference, PReMI 2011, Moscow, Russia, June 27 - July 1, 2011. Proceedings, Book title, PReMI Springer, Lecture Notes in Computer Science Volume: 6744(2011)p-148**

- 40. TASOCNN: A Topology Adaptive Self-Organizing Circular Neural Network and its Application to Color Segmentation** Anandarup Roy, Swapan Kumar Parui and Utpal Roy-**Indian Conference on Computer, Vision, Graphics and Image Processing -2010(ICVGIP10)** (Held on IIT Madras, Chennai India, 16-18 Dec, 2010)
- 41. Secured Geocast Routing in VANET (Vehicular Ad-Hoc Network)with two stage efficient communication protocol** Bhaskar Das and Utpal Roy - **International Conference on Emerging Trends in Soft Computing and ICT, SCICT 2011, 16-17 March, 2011(Oral presentation) , Proceeding(ISBN 978-81-920913-3-4) page No. 202**
- 42. PRIM'S ALGORITHM FOR COLOR IMAGE SEGMENTATION-** Utpal Roy, Achintya Kr. Mandal and Anandarup Roy- **International Conference on Emerging Trends in Soft Computing and ICT, SCICT 2011, 16-17 March, 2011. ( Oral presentation), Proceeding ISBN 978-81-920913-3-4)Page no. 193**
- 43. A Novel Approach for Authentication Techniques in Vehicular Ad-hoc Network :** Pijush Kanti Bhattacharjee and Utpal Roy , **National Conference on Computing and System 2010, Proceeding Page No. 113, ISBN no. 8190744174.**
- 44. Vehicular Transmission Control Protocol, Subhasis Banerjee and Utpal Roy, National Conference on Computing and System 2010, Proceeding Page No. 203, ISBN no. 8190744174.**
- 45. Greedy Approach to Graph-Based Algorithm for Color Image Segmentation – Utpal Roy, A.K. Mandal, A.C. Mandal: Proceeding – International Conference on Computing and Systems -2010 p42-47.**
- 46. Secured Geocast Routing Protocol in VANET(Vehicular Ad-hoc Network) –U.Roy, B. Das, P K Bhattacharjee and A K Mandal; Proceeding –International Conference on Computing and Systems -2010, p64-68. ISBN no. 8190744174.**
- 47. Detection and Analysis of Forest Cover Changes of Indian Sundarbans with the help of Satellite Data-Utpal Roy and A. K. Mandal and S. Mukherjee, Journal of Environmental Science and Engineering, Vol.53, No.3, p309-318(2011).**

- 48. Artificial Intelligence Based Authentication Technique with Three Attributes in Vehicular Adhoc Network-** Pijush Bhattacharjee, Utpal Roy and A K Bhattacharjee, **International Journal of Computer Theory and Engineering**, Vol -3, page 395(2010).
- 49. Novel Approach for E-Content Management and Delivery in Digital Library –International Conference in Digital Library-**A.K. Mandal and Utpal Roy, **2010(ICDL10), proceeding p453.**
- 50. Introduction to Quantum Computing and solution of Travelling Salesman problem-** Utpal Roy, Sanchita Pal Choudhuri and Susmita Nayek- **National Journal of Science and Information Technology** , Vol-2, No.1, p54-72(2009).
- 51. Passive Cluster based Routing Protocol-** Subhasis Banerjee and Utpal Roy, **ICFAI, Journal of Information Technology- Dec. 2009, Vol. V. No. 4, Page 7**
- 52. Computation of resonances below  $Ps(n=2)$  threshold in positron-hydrogen system using stabilization method –Utpal Roy , Indian journal of Physics(IJP) Vol. 83(12), 1637-1645(2009).**
- 53. Forest Cover Changes with the help of Remote Sensing and GIS in Lothian, South-Surendranagar and Dhanchi Island of Indian Sundarbans- Somnath Mukherjee, Utpal Roy and Achintya Mandal, IEEE National Conference on Computing and Communication 2009(CoCosys09), Proceeding Page 87-93.**
- 54. A Color Based Image Segmentation and its Application to Text Segmentation-**A.Roy, S K Parui and U. Roy **Indian Conference on Vision, Graphics and Image Processing(ICVGIP-2008, IEEE Kharagpur Chapter) Proceeding Page 314-319.**
- 55. Discriminative HMM Training with GA for Handwritten Word Recognition – Tapan Kumar Bhowmik, Swapan Kumar Parui and Utpal Roy Submitted in 19<sup>th</sup> International Conference on Pattern Recognition-08(ICPR08) held during 8-11 December, 2008 in Tampa, Convention Center, Tampa, FL, USA.**

56. Color Based Image Segmentation –Anandarup Roy, Swapan Kumar Parui, Amitava, Paul and Utpal Roy; **International Conference on Information Technology 2008, Bhubaneswar, IEEE Computer Society; Proceeding page 254-255.**
57. HMM Parameter Estimation with Genetic Algorithm for Handwritten Word Recognition- Tapan Kumar Bhowmik, S. K Parui, U Roy; **International Conference on Pattern Recognition and Machine Intelligence(PReMI07) LNCS 4815 pp 536-544(2007) Springer Verlag.**
58. Computation of Doubly-excited  $1s^2 3l^1 1P^o$  and  $1F^o$  states in beryllium-like ions. **Utpal Roy and Y. K. Ho, Indian Journal of Physics(IJP) Vol 82 No. 4 2008(page-387-401)**
59. Skew Correction and Character Segmentation for Handwritten Bangla Words using Support Vector Machine- Tapan Kumar Bhowmik, Pradip Ghanty, Anandarup Roy, Swapan Kumar Parui, Utpal Roy; **Proceedings of International Conference on Information Technology(INTL-INFOTECH)-page 572-577.**
60. A Beta Mixture Model Based Approach to Text Extraction from Color Images-A. Roy, S K Parui and Utpal Roy **Proceedings of the Sixth International Conference on Advances in Pattern Recognition-2007(ICAPR07), World Scientific, page 321-326.**
61. Segmental K-means Algorithm Based Hidden Markov Model for Shape Recognition and its Applications- T K Bhowmik, Swapan Kumar Parui, Manika Kar and Utpal Roy **Proceedings of the Sixth International Conference on Advances in Pattern Recognition-2007(ICAPR07), World Scientific, Page361-365.**
62. Character Segmentation for Handwritten Bangla word Using Artificial Neural Network-T.K. Bhowmik, A. Roy and U.Roy;Published in Proceedings of **IAPR Workshop on Neural Network and Learning in Document Analysis and Recognition-2005(ICDAR-05)**, page,28; held at Seoul Olympic Parktel, Seoul, Korea during August 2005.



63. A Novel Approach to Skew Detection and Character Segmentation for Handwritten Bangla Words S. K. Parui, A. Roy, T. K. Bhowmik and U. Roy; Accepted and Published in **DICTA(Digital Image and Computing: Techniques and Applications) 2005 held in AUSTRALIA** during December 6-8, 2005, Conference Proceeding, Computer Society, IEEE, Page 9.
64. Efficient Algorithms for Color Image Compression -Byomkesh Mandal, S. K. Parui and U. Roy, **Journal of Computer Science Vol. 1 No.5 page 365(2006)**.
65. Quantum Computer and Implementation of Travelling Salesman Problem with Quantum Computing Algorithms- Sanchita Pal Choudhuri, Susmita Nayek, Utpal Roy( Proceedings of : **13th State Science and Technology Congress, Govt. of WestBengal**, Page B12, 28 February to 1 March, 2006)
66. Evaluation of general three-denominator Lewis integral -U. Roy, L. J. Dube, P. Mandal and N. C. Sil,**Computer Physics Communication 92, 277-289(1995)**.
67. S-wave resonances in positron-lithium scattering -Utpal Roy and Y. K. Ho., **Journal of Physics B35 Atomic, Molecular and Optical Physics, 1-9(2002)**.
68. P-wave resonances in positron-lithium scattering - Utpal Roy, Y. K. Ho, **Nuclear Instruments and Methods in Physics Research B221 (2004)36-40**.
69. Electron and Positron impact ionization of hydrogen atom near threshold-U. Roy, K. Roy and N. C. Sil, **Physica Scripta Vol. 35, 218, 2000** .
70. Transcendental-function representation of Stark-modified hydrogenic states and atomic dipole polarizability-A. Bhattacharyya, B. Talukdar, G. Banerjee and U. Roy, **Journal of Physics A31, Mathematical Phys., 1219-1226(1998)**.
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