

BIODATA

PRIYA SAHA

Personal Details:

- Name : Priya Saha.
- Father's Name : Rathindra Chandra Saha
- Date of Birth : 19.12.1987
- Current Designation : DST-INSPIRE Fellow
- Department : Computer Science & Engineering
- Organisation : Tripura University (A Central University)
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Educational Qualification:

Examinations	Name of the University/Board	Year of Passing	Percentage of marks obtained	Division / Class	Subjects
Madhyamik	Tripura Board of Secondary Education	2004	76.25%	1 st Div.	Beng, Eng., Phy. science, L. Sc., Math., Hist., Geo.,
Higher Secondary	Tripura Board of Secondary Education	2006	79.2%	1 st Div.	Beng., Eng., Physics, Chemistry, Math, Bio (Add.)
B.Tech (CSE)	NIT Agartala	2010	78.2%	1 st Class with Distinction	All subjects of Computer Science & Engg.
M.Tech (CSE)	Tripura University	2012	81.4%	1 st Class 1 st (Gold Medalist)	All subjects of Computer Science & Engg.
Ph. D (CSE)	Tripura University	Registered 9 th September 2014			

Area of Research:

- Human Computer Interaction
- Face recognition
- Facial expression recognition

Research Experience Details:

- Worked as a **Research Assistant** in the DeitY, MCIT, New Delhi, Govt. of India, funded project entitled, “**Creation of a Visual Face Database of North-Eastern People & Implementation of Techniques for Face Identification**” in the Department of Computer Science & Engineering, Tripura University (A Central University), Tripura, India from 28.05.2012 to 25.12.2013.
- Working as a **DST-INSPIRE Fellow**, Govt. of India, in the department of Computer Science & Engineering, Tripura University (A Central University), Tripura, India from 26.12.2013 to till now.

Membership:

- Student member of SPIE (SPIE ID: 3491075).

Conference/ Seminar Presentations:

- Delivered a presentation on “**Characterization and recognition of mixed emotional expressions in thermal infrared face image**” in SPIE Defense + Security, Organized by SPIE, Baltimore, Maryland, United States, April 17-21, 2016.
- Delivered a presentation on “**Mathematical Representations of Blended Facial Expressions towards Facial Expression Modeling**” in 7th International conference on Intelligent Human Computer Interaction (IHCI 2015), Organized by Indian Institute of Technology Allahabad, Allahabad, Dec. 14-16, 2015.
- Delivered a presentation on “**An Approach to detect the region of interest of Expressive Face Images**”, in International Conference on Information and Communication Technology, organized by Cochin University of Science & Technology, Kochi, Dec. 3-5, 2014.
- Delivered a presentation on “**Feature Points Extraction of Thermal Face using Harris Interest Point detection**” in 1st International conference on Computational Intelligence: Modelling, Techniques and Applications (CIMTA-2013), September 27-28, 2013, Organized by Department of Computer Science & Engineering, University of Kalyani, India.
- Delivered a presentation on “**Classification of Human Face Images using Kernel Independent Component Analysis and Different SVM Kernels**” in 2nd International Conference on Rough Sets, Fuzzy Sets and Soft Computing (ICRFSC12), January 17 – 19, 2013, Organized by Department of Mathematics, Tripura University (A Central University), Tripura.
- Delivered a presentation on “**Performance Evaluation through KICA and Feature level Fusion for Human Face Recognition**” in International Conference on Artificial Intelligence and Soft Computing (AISC 2012), December 7-9, 2012, Organized by Department of Computer Engineering, Indian Institute of Technology (BHU) Varanasi, Varanasi.
- Delivered a talk on “**A Generalized Study on Appropriate Climate Responsive Technologies for Inclusive Growth and Sustainable Development**” in the 45th Engineers Day, September 15, 2012, Organized by Institute of Engineers (India) of Tripura State Centre and Others, in Nazrul Kalakshetra, Agartala, Tripura.
- Delivered a presentation on “**On Decision Fusion to Combine Classifiers for Human Face Recognition**”, in the 2nd National Conference on Mathematical Analysis and its Application

(NCMA12), April 5-6, 2012, Organized by Department of Mathematics, Tripura University (A Central University), Tripura.

Workshops Attended:

1. IEEE workshop “**On Computational imaging, speech and language processing**”, Organized by Indian Institute of Technology Allahabad, Allahabad, Dec. 12-13, 2015.
2. “**Workshop on Statistical Data Analysis Methods**” Jointly organized by Interdisciplinary Statistical Research Unit (ISRU), ISI Kolkata and Department of Information Technology, Tripura University (A Central University), 18th to 24th November, 2015.
3. “**Workshop on Big Data Analytics**”, Co-organized by ACM Student Chapter, ISI Kolkata and Indian Statistical Institute, August 20-21, 2015.
4. Workshop on “**Fundamentals of Image Analysis & Pattern Recognition**”, Organized by Department of Computer Science & Engineering, Tripura University (A Central University), 6th to 8th February, 2015.
5. Workshop on “**Activities of Society for Applied Microwave Electronics Engineering & Research in Emerging Fields of Computer & Electronics Science & Engineering**”, Organized by Department of Computer Science & Engineering, Tripura University (A Central University), Co-sponsored by: SAMEER, IIT Bombay Campus, Powai, Mumbai, 5th July, 2014.
6. Workshop on “**Digital Holography**”, Organized by Department of Computer Science & Engineering & Department of Information Technology, Tripura University (A Central University), Co-sponsored by: The Institute of Engineering and Technology, 23rd to 24th May, 2013.

Publications:

Journal

1. Mrinal Kanti Bhowmik, **Priya Saha**, Anu Singh, Debotosh Bhattacharjee, Paramartha Dutta, “Enhancement of Robustness of Face Recognition System through Reduced Gaussianity in Log-ICA”, **Accepted, Expert System with Applications**, Elsevier, 2018 (**SCIE Indexed, IF: 3.76**)
2. **Priya Saha**, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, “A Survey on Real-time Image Acquisition Methods for Natural Non-posed Facial Expression Recognition Systems” **Under Major Revision, Multimedia Tools and Applications**, Springer, 2018 (**SCIE Indexed, IF: 1.54**)
3. **Priya Saha**, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, “Facial Component-based Blended Facial Expressions Generation from Static Neutral Face Images”, **Multimedia Tools and Applications**, Vol. 77, No. 15, pp. 20177-20206, 2018, Springer, DOI: 10.1007/s11042-017-5436-9 , (**SCIE Indexed, IF: 1.54**)
4. **Priya Saha**, Mrinal Kanti Bhowmik, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, “Expressions Recognition in North-East Indian (NEI) Faces”, **Multimedia Tools and Applications**, Vol. 75, No. 24, pp. 16781–16807, 2016, Springer, DOI: 10.1007/s11042-015-2945-2 (**SCIE Indexed, IF: 1.54**).

5. Mrinal Kanti Bhowmik, Kankan Saha, **Priya Saha**, Debotosh Bhattacharjee, "DeitY-TU face database: its design, multiple camera capturing, characteristics, and evaluation," **Optical Engineering**, Vol. 53, No.10, pp: 102106-1 to24, 2014, SPIE, DOI: 10.1117/1.OE.53.10.102106. (SCI Indexed, IF: 0.993).
6. **Priya Saha**, Mrinal Kanti Bhowmik, Debotosh Bhattacharjee, Barin Kumar De, "A Study on Texture Analysis of Facial Expressions", **International Journal of Information Processing**, 7(4), 28-34, 2013.
7. Sanjoy Mitra, **Priya Saha**, Mrinal Kanti Bhowmik and Debotosh Bhattacharjee "A study on Some Aspects of Human Emotion Recognition using Facial Expression Analysis", **Journal of the Tripura Mathematical Society**, Vol. 14, pp. 24-35, December 2012, published by Tripura Mathematical Society, ISSN: 0972 – 1320.

International Conference Proceedings:

1. **Priya Saha**, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, "Characterization and Recognition of Mixed Emotional Expressions in Thermal Face Image", **Proc. of SPIE**, Infrared Imaging Systems: Design, Analysis, Modeling, and Testing XXVIIIV, vol. 9820, pp. 98200S-1-98200S-10, 2016. (Scopus Indexed)
2. **Priya Saha**, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, "Mathematical Representations of Blended Facial Expressions towards Facial Expression Modeling" **Procedia Computer Science** 84 (2016), pp. 94 – 98, 2016. (Scopus Indexed)
3. Sourav Dey Roy, Mrinal Kanti Bhowmik, **Priya Saha**, Anjan Kumar Ghosh, "An Approach for Automatic Pain Detection through Facial Expression" **Procedia Computer Science** 84 (2016) 99 – 106, 2016. (Scopus Indexed)
4. Sourav Dey Roy, **Priya Saha**, Mrinal Kanti Bhowmik, Debanjana Debnath, "Performance Evaluation of Geometric Based Hybrid Approach For Facial Feature Localization", **Proc. of 5th International Conference on Soft Computing for Problem Solving, Advances in Intelligent Systems and Computing**, Vol. 436, pp. 273-286, 2016.
5. **Priya Saha**, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, "An Approach to detect the region of interest of Expressive Face Images", **Elsevier Procedia Computer Science** 46(2015), pp-1739-1746. (Scopus Indexed)
6. **Priya Saha**, Gouri Nath, Mrinal Kanti Bhowmik, Debotosh Bhattacharjee, Barin Kumar De, "NEI Facial Expressions for Identification", 2013 International conference on Electronic Engineering and Computer Science, **IERI Procedia** 4(2013), pp. 358-363, Published by Elsevier, May 22-23, 2013, Beijing, China.
7. Sandip Shil, Mrinal Kanti Bhowmik, **Priya Saha**, "Feature Points Extraction of Thermal Face using Harris Interest Point detection", **Procedia Technology** 10(2013), pp. 724-730, published by Elsevier Procedia Technology.

8. **Priya Saha**, Rupayan Debnath, Aniruddha Nath Sarma, Mrinal Kanti Bhowmik, Debotosh Bhattacharjee “NEI Face Emotions: Standardization and Its Aspects”, **Proc. of 7th International Conference on Image and Signal Processing (ICISP 2013)**, published by Elsevier, Bangalore, India, pp. 227-234, Aug. 9-11, 2013.
9. **Priya Saha**, Mrinal Kanti Bhowmik ,Debotosh Bhattacharjee, Barin kumar De, Mita Nasipuri, “ Gradient based Fusion of Infrared and Visual Face Images using Support Vector Machine for Human Face Identification”, **Proc. of Multimedia on Mobile Devices of Electronic Imaging (EI)**, Vol. 8667, pp. 86670Z-1- 86670Z-8, organized by the Society for Imaging Science and Technology (IS&T) and SPIE, published by SPIE Digital Library, San Francisco, Burlingame, California, Feb. 3-7, 2013. **(Scopus Indexed)**
10. Kankan Saha, **Priya Saha**, Mrinal Kanti Bhowmik, Debotosh Bhattacharjee, and Mita Nasipuri, “Creation of North-East Indian face database for human face identification”, **Proc. of Sensors, Cameras, and Systems for Industrial/Scientific Applications XIV of Electronic Imaging (EI)**, Vol. 8659, pp. 86590Q-1-86590Q-6, organized by the Society for Imaging Science and Technology (IS&T) and SPIE, published by SPIE Digital Library, San Francisco, Burlingame, California, Feb. 3-7, 2013. **(Scopus Indexed)**
11. **Priya Saha**, Mrinal Kanti Bhowmik ,Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, “ Classification of Human Face Images using Kernel Independent Component Analysis and Different SVM Kernels”, **Proc. of 2nd International Conference on Rough Sets, Fuzzy Sets and Soft Computing (ICRFSC12)**, January 17 – 19, 2013, Organized by Department of Mathematics, Tripura University (A Central University), Tripura.
12. **Priya Saha**, Mrinal Kanti Bhowmik, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, Dipak Kumar Basu, “Performance Evaluation through KICA and Feature level Fusion for Human Face Recognition”, **Proc. of International Conference on Artificial Intelligence and Soft Computing (AISC 2012)**, pp. 34-38, December 7-9, 2012, Organized by Department of Computer Engineering, Indian Institute of Technology (BHU) Varanasi, Varanasi.

National Conference Proceedings:

1. Gouri Nath, **Priya Saha**, Aniruddha Nath Sarma, Mrinal Kanti Bhowmik, Debotosh Bhattacharjee, “ Expression Recognition using Local Binary Pattern”, **Proc. of 2nd National Conference on Emerging Areas of Photonics and Electronics (EAPE 2013)**, pp. 8-16, August 30-31, 2013, Organized by Department of Electronics & Communication Engineering and SPIE Student Chapter, B. P. Poddar Institute of Management & Technology, Kolkata, India.

Book Chapters

1. Mrinal Kanti Bhowmik, **Priya Saha**, Goutam Majumder, Debotosh Bhattacharjee, “Decision Fusion of Multisensor Images for Human Face Identification in Information Security”, Book Chapter of **“Handbook of Research on Computational Intelligence for Engineering, Science and Business”**, Edited by: Dr. S. Bhattacharyya & Prof. P. Dutta, Published by **IGI Global, USA**, Vol. 1, pp. 571-591, Nov. 27, 2012, EISBN13: 9781466625198, doi: 10.4018/978-1-4666-2518-1.
2. Sourav Dey Roy, Debanjana Debnath, **Priya Saha**, Mrinal Kanti Bhowmik, “Human Behavior Analysis through Facial Expression for Pain Estimation” Book Chapter of **“Applied Big Data**

Analytics", Edited by: Ajit Kumar Roy, published by **CreateSpace Independent Publishing Platform**, Kindle Edition, 2015, ISBN-10: 1512347183, ISBN-13: 9781512347180.

Declaration:

I hereby declare that the information furnished above is true to the best of my knowledge.

Place: Agartala

(Priya Saha)