Dr. Shrikant Tiwari (Assistant Professor)

Department of Computer Science & Engineering (CSE)
Faculty of Engineering & Technology
Shri Shankaracharya Group of Institutions
Shri Shankaracharya Technical Campus
Junwani, Bhilai, District-Durg, Chattisgarh, India-490020

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Objective: Seeking a career in a growth oriented organization, where my skills would be utilized to the optimum for the growth of the organization and myself.

Academic Qualifications:

- **Ph.D., Computer Engineering**
  Indian Institute of Technology (BHU), Varanasi, (U.P.), India.
  Year: July, 2009 - October, 2012
  Marks: 8.38 CGPA in course work
  Ph.D. Thesis: Multimodal Biometric Recognition for Newborn

- **M.Tech.,Computer Science and Technology**
  University of Mysore, Mysore, (Karnataka), India.
  Year: July 2007 -June 2009
  Marks: 8.06 CGPA with Distinction
  M.Tech. Thesis: Steganography (The Art of Hiding Information)

- **M.Sc.,Information Technology**
  Mahatma Gandhi Chitrakoot Garmodaya Vishwavidyalaya, Chitrakoot, Satna, (M.P.) India.
  Year: July 2004-June 2006
  Marks: 7.9 CGPA
  M.Sc. Thesis: Nagar Panchayat Management System

- **B.Sc.,Information Technology (Hons.)**
  Mahatma Gandhi Chitrakoot Garmodaya Vishwavidyalaya, Chitrakoot, Satna, (M.P.) India.
  Year: July 2001-June 2004
  Marks: 7.56 CGPA

- **Higher Secondary (10+2)**
  M.P. Board, Shahdol, India.
  Year: 2001
  Marks: 68.88%

- **High School (10th)**
  M.P. Board, Shahdol, India.

Year: 1998

Marks: 71.20%

Research:

Area of Interest: Biometrics, Pattern recognition, Computer Vision, Image Processing.

I have been working on various problems of biometric system for my thesis.

- Design and implementation of multimodal biometrics algorithms for recognition of newborn.

- Feature extraction techniques to improve the Accuracy and Speed of the system.

- Feature extraction techniques to handle robustness in the context of Scale, Rotation and Occlusion.

Experience:

- Currently I am working as an **Assistant Professor** in Department of Computer Science & Engineering (CSE), Shri Shankaracharya College of Engineering and Technology (SSCET), Bhilai, Durg (Chattisgarh), India.
- Guest Lecturer (September 2006-May 2007)

  Mahatma Gandhi Chitrakoot Garmodaya Vishwavidyalaya, Chitrakoot, Satna, (M.P.) India.

  - Teaching post graduate and undergraduate B.Sc. (IT) and M.Sc. (IT) students.
  - Subjects Taught: Data Structure, Computer Graphics, Algorithm Analysis and Design and Graph Theory.
- Teaching Assistant: [July, 2011- Dec, 2011], Discrete Mathematics and, Indian Institute of Technology (BHU), Varanasi, India.
- Teaching Assistant: [July, 2012- Nov, 2012], Discrete Mathematics and, Indian Institute of Technology (BHU), Varanasi, India.
- I have also engaged Data Structure, Computer Graphics and Artificial Intelligence laboratory classes during Ph.D. in Department of Computer Engg., IIT (BHU), Varanasi, India.

Recognition / Awards:

- Participation in **Science Exhibition at National Level (1998)**.
- Merit Holder in **National Talent Search Contest (1999)**.
- Qualified **GATE'07** (Score: 327; AI Rank: 710) in Information Technology.
- Participated in college and school level debate and essay competition and received applauds.

Workshops/Summer/Winter Schools attended:

- Fourth International Workshop on Biometrics and its Application in Forensic Science (IWBFS), IIT-Kanpur, January-2011. (**03 days)**
- Research Promotion Workshop on Introduction to Graph and Geometric Algorithms, jointly organized by ITBHU, Varanasi and TIFR, Mumbai at ITBHU, Varanasi during 27-29, January, 2010. (**03 days**)
- Research Promotion Workshop on Introduction to Graph and Applications (IGAA-2012), organized by Department of Computer Science Banaras Hindu University, Varanasi during 05-10, November, 2012. (**06 days**)
- Networking & Web Applications, Computer Academy, Kanpur, July-2003 (**15 Days**)

Publications

Journal:

1. Shrikant Tiwari and Sanjay Kumar Singh, "Face Recognition for Newborn", IET Biometrics.Vol.1, No. 4, pp. 200 – 208, December 2012. **DOI:** 10.1049/iet-bmt.2012.0040.

2. Shrikant Tiwari and Sanjay Kumar Singh, "Newborn Verification using Headprint", Journal of Information Technology Research (JITR), Vol. 5, No. 2, pp. 15-30, April-June 2012, *ISSN: 1938-7857,* **DOI:** 10.4018/jitr.2012040102*. (*IGI Global*).*

3. Shrikant Tiwari, Aruni Singh, Sanjay Kumar Singh, "Intelligent Method for Face Recognition of Infant", International Journal of Computer Applications, Vol. 52, No. 4, pp. 36-50, 2012. **DOI:** 10.5120/8194-1569.

4. Shrikant Tiwari, Aruni Singh and Sanjay Kumar Singh, "Fusion of Ear and Soft-biometrics for Recognition of Newborn", Signal & Image Processing: An International Journal, Vol.3, No.3, pp. 103-116, 2012, **ISSN:** 0976-710X.

5. Shrikant Tiwari, Aruni Singh and Sanjay Kumar Singh, "Integrating Faces and Soft-biometrics for Newborn Recognition", International Journal of Advanced Computer Engineering & Architecture, Vol.2, No.2, pp. 201-209, 2012, **ISSN:** 2248-9452.

6. Aruni Singh, Shrikant Tiwari and Sanjay Kumar Singh, "Dummy Face Database", International Journal Computer Application, Vol. 3, No. 2, pp. 193-201, 2012, **ISSN:** 2250 – 1797.

7. Aruni Singh, Shrikant Tiwari, Sanjay Kumar Singh: "Vitality Detection in Face Images using Second Order Gradient Method", International Journal of Computer Applications & Information Technology, Vol. 1, No.2, pp. 96-101, 2012. **ISSN:** 2278-7720.

8. Aruni Singh, Sanjay Kumar Singh and Shrikant Tiwari, "Comparison of Face Recognition Algorithms on Dummy Faces", International Journal of Multimedia & Its Applications, Vol.4, No.4, pp. 121-135, 2012, **ISSN:** 0975-5578. **DOI:** 10.5121/ijma.2012.4411.

9. Aruni Singh, Shrikant Tiwari and Sanjay Kumar Singh, "Face Tampering Detection from Single Face Image using Gradient Method", International Journal of Security and Its Applications, vol. 7, no. 1 , pp. 17-30, 2013, **ISSN :** 1738-9976.

10. Raghvendra Pratap Singh, Anuradha Sharma, Shrikant Tiwari and Sanjay Kumar Singh, "Automatic Ear Segmentation Using Watershed Transforms", International Journal of Advances in Science and Technology, Vol. 4, No.3, pp. 31-37, 2012. **ISSN:** 2229-5216.

11. Shrikant Tiwari and Sanjay Kumar Singh, "Biometric Recognition of Newborns using Ear", Pattern Recognition Letters. **(Communicated)**

12. Shrikant Tiwari and Sanjay Kumar Singh, "Human and Machine Recognition for Newborn", Journal of Signal Processing Systems, Springer. **(Communicated)**

International/National Conference:

1. Shrikant Tiwari, Aruni Singh and Sanjay Kumar Singh,"Can Ear and Soft-biometric Traits Assist in Recognition of Newborn?", In Proceedings of International Conference on Computer Science, Engineering and Applications, **DOI:10.1007/978-3-642-30157-5**, **ISBN:** 978-3-642-30157-5, pp

179-192, (Springer Berlin Heidelberg) May 2012.

2. Shrikant Tiwari, Aruni Singh and Sanjay Kumar Singh, "Can Face and Soft-biometric Traits Assist in Recognition of Newborn?", In Proceedings of IEEE, International Conference on Recent Advanced in Information Technology, **IEEE Catalog Number:** CFP1234P-ART, **ISBN: 978-1-4577-0694-3**, pp. 74-79 , March 2012.

3. Shrikant Tiwari, Aruni Singh and Sanjay Kumar Singh, "Newborn's Ear Recognition: Can it be done?", In Proceedings of IEEE, International Conference on Image Information Processing, **IEEE Catalog Number:** CFP1169N-ART**, ISBN:** 978-1-61284-859-4, pp. 01-06, September, 2011.

4. Shrikant Tiwari, Aruni Singh and Sanjay Kumar Singh, "Face Recognition of Newborn using Intelligent Technique" National Conference on Artificial Intelligence and Agents: Theory and Applications (AIATA), December 9-11, 2011.

5. Aruni Singh, Shrikant Tiwari and Sanjay Kumar Singh, "Performance evaluation on dummy face images", In Proceedings of International Conference on Computer Science, Engineering and Applications, **DOI:10.1007/978-3-642-30157-5, ISBN:**978-3-642-30157-5, pp. 211-222, (Springer Berlin Heidelberg) May 2012.

6. Shrikant Tiwari and Sanjay Kumar Singh, "Comparative study of Ear Algorithms on Adult and Newborn Ear Images" National Conference on High Performance Computing and Applications (HPCA), November 05-10, 2012.

Book Chapter:

1. Shrikant Tiwari, Aruni Singh, Ravi Shankar Singh and Sanjay Kumar Singh, "Internet Security using Biometrics", in Technologies and protocols for Future Internet Design: Reinventing in Web (IGI Global Publishing). Edited by D. P. Vidyarthi, Chapter 6. **ISBN-10:**1466602031, **DOI:** 10.4018/978-1-4666-0203-8.ch006

2. Shrikant Tiwari and Sanjay Kumar Singh, "Information Security Governance using Biometrics", in IT Security Governance Innovations: Theory and Research. (IGI Global Publishing). Edited by Dr. Daniel Melladoet.al., Spain, Chapter 8. **ISBN:** 9781466620834**, DOI:** 10.4018/978-1-4666-2083-4.ch008

3. Saurabh Upadhyay, Shrikant Tiwari and Sanjay Kumar Singh, "Intelligent Video Authentication: Algorithms and Applications", in Intelligent Image and Video Interpretation: Algorithms and Applications. (IGI Global Publishing). Edited by Jing Tian, and Li Chen, China. Chapter 1. **DOI:** 10.4018/978-1-4666-3958-4.ch001.

4. Shrikant Tiwari and Sanjay Kumar Singh, "Multimodal Biometric Recognition for Newborn", in Research Developments in Biometrics and Video Processing Techniques (IGI Global Publishing). Edited by Dr. Rajeev Srivastava, Dr. S.K. Singh and Dr. K.K. Shukla. Chapter 2. **ISSN:** 1948-9730, **ISBN:** 978-1-4666-4870-8.

5. Saurabh Upadhyay, Shalabh Parashar, Shrikant Tiwari and Sanjay Kumar Singh, "Video Authentication: An Intelligent Approach", in Research Developments in Biometrics and Video Processing Techniques (IGI Global Publishing). Edited by Dr. Rajeev Srivastava, Dr. S.K. Singh, and Dr. K.K. Shukla. Chapter 10. **ISSN:** 1948-9730, **ISBN:** 978-1-4666-4870-8.

Area of Interest:

- Biometrics
- Image processing
- Video Processing

- Computer Vision
- Pattern Recognition

Skills:

- Languages: C, C++, C#.
- Operating Systems: Linux (Fedora), Linux (Ubuntu), Windows 95/98/NT/2000/XP
- Applications: .NET, MatLab, GNU Octave, GNU plot, LATEX, Open Office, MS Office XP.
- Miscellaneous: Shell Scripting, SQL.

Interests:

- Academic: Image processing, Computer vision and Machine learning applications.
- Sports: Playing Cricket, Football and Badminton.
- Computers: Working on Image processing related applications, software and libraries
- Musical: Playing mouthorgan, Listening to Hindi music especially Gazals from Pankaj Udhas, Jagjit Singh and Gulam Ali and songs from Mohd. Rafi and Kishore Kumar.
- Other: Surfing, Browsing,Reading and writing poems in Hindi.

Membership:

- Lifetime Membership of International Association of Engineers (IAENG), Hong Kong. (**Member No: 133641**)
- Lifetime Membership of International Association of Computer Science and Information Technology (IACSIT), Singapore (**Member No: 80347504**)
- Lifetime Membership of Science and Engineering Institute (SCIEI) **(Member No: 20131012001)**
- Lifetime Membership of Internet Society (ISOC), USA **(Member No:** 386921**)**
-

Member in Editorial Board:

- Journal of Control Engineering and Technology (JCET)
- Institute of Research and Journals (IRAJ)
- International Journal of Modern Communication Technologies & Research (IJMCTR)
- International Journal of Engineering & Technical Research (IJETR)
- International Journal of Current Engineering and Technology (IJCET)
- International Journal of Computer Technology & Application (IJCTA)
- International Journal of Graphics and Multimedia(IJGM)
- International journal of Advanced Research in Engineering & Technology (IJARET)

Professional Service as Reviewer:

- **Reviewer** of IET Biometrics
- **Reviewer** of Journal of Information Technology Research (JITR), IGI Global.
- **Reviewer** of International Journal of Computer Technology & Application (IJCTA)
- **Reviewer** of International Journal of Digital Information and Wireless Communications (IJDIWC)
- **Reviewer** of International Journal of Computer Science and Information Security (IJCSIS)

References:

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   Indian Institute of Technology (BHU), Varanasi-221005, India
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   University of Mysore, Manasagangothri, Mysore-570006, India
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   Indian Institute of Technology (BHU), Varanasi-221005, India
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   Banaras Hindu University, Varanasi-221005, India
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   Phone: +91-9451227115

Personal Details:

Father's Name	:	Sri Yogendra Nath Tiwari
Mother's Name	:	Smt. Radha Tiwari
Date of Birth	:	15th Aug. 1983
Sex	:	Male
Marital status	:	Single
Nationality	:	Indian
Languages Known	:	English, Hindi
Permanent Address	:	S/O Yogendra Nath Tiwari
		Village-Karuwa, P.O. -Magraura (Nadan)
		Tehsil-Maihar, District-, Satna, Madhya Pradesh,
		Pin- 485774

Declaration:

I hereby declare that all the aforesaid information is true and correct to the best of my knowledge and belief.

Date: 22 August 2013

Place: Bhilai (Durg)   **(Shrikant Tiwari)**