Vivek Singh Baghel

Research Scholar,
Discipline of Computer Science and Engineering,
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Education

- **Indian Institute of Technology Indore**   Indore, MP, India
  PhD (Computer Science and Engineering)   *Ongoing, Dec-2018 onwards*
    - Research Area: Biometric Security, Computer Vision
    - Current CGPA: 8.88
- **University of Hyderabad**   Hyderabad, Telangana, India
  M.Tech(Information Technology)   *2016 - 2018*
    - Aggregate CGPA: 8.92
    - Thesis Title: Multiple Team Formation Problem using Sociometry and Evolutionary Approach
- **UIT-RGPV**   Bhopal, MP, India
  B.E.(Computer Science and Engineering)   *2011 - 2015*
    - Aggregate CGPA: 7.25
    - Project Title: Healthcare system using Cloud Computing
- **Saraswati Hr. Sec. School**   Seoni, MP, India
  Higher Secondary Examination   *2009 - 2010*
    - Percentage: 88%
- **Saraswati Hr. Sec. School**   Seoni, MP, India
  High School Examination   *2007 - 2008*
    - Percentage: 81.8%

Research Interests

Currently, I am working in the area of Biometric Security under the guidance of Dr. Surya Prakash (Associate Professor & Head, CSE, IIT Indore, Indore, India). My broad research interest includes Biometrics, Computer Vision, Image Processing, Machine Learning, and Deep Learning.

Publications

[1] **Vivek Singh Baghel**, Syed Sadaf Ali, and Surya Prakash, "An Approach Based on Non-invertible Transformation to Protect a Fingerprint Template," *ACM Transactions on Multimedia Computing, Communications, and Applications* (under preparation).

[2] Syed Sadaf Ali, **Vivek Singh Baghel**, and Surya Prakash, "Robust Biometric Authentication System with a Secure User Template," *Image and Vision Computing* (Submission id-IMAVIS-D-20-00013, Submitted on 13th Jan 2019-under review).

[3] Syed Sadaf Ali, Surya Prakash, Iyyakutti Iyappan Ganapathi, **Vivek Singh Baghel**, Pooja Consul, and Sajid Mahyo, "A Novel Technique for Fingerprint Based Secure User Authentication," *ACM Transactions on Internet Technology* (Submission id-TOIT-2019-0190, Submitted on 28th Nov 2019-under review).

[4] **Vivek Singh Baghel**, Akhilesh Mohan Srivastava, Surya Prakash, and Siddharth Singh, "Minutiae Points Extraction using Faster R-CNN ," *7th International Conference on Advanced Computing, Networking, and Informatics (ICACNI 2019)*, December 20-21, 2019, IIIT Kalyani, West Bengal, India. (Accepted)

[5] **Vivek Singh Baghel** and S. Durga Bhavani, "Multiple Team Formation Using an Evolutionary Approach," In *Proc. 2018 Eleventh International Conference on Contemporary Computing (IC3)*, Noida, 2018, pp. 1-6.

Projects

- M.Tech. Thesis Title: **Multiple Team Formation Problem using Sociometry and Evolutionary Approach**
  - Problem Statement: Finding teams of experts from a given set of people (who are belong to some skills and a person can be available in single or multiple skill-sets) for execution of multiple tasks or projects according to the given skills requirement of different projects or tasks, in such a way that the positive relationship between each individual in a team should be maximized and also the global efficiency of all assignment should be maximized.
  - Proposed solution is based on Genetic Algorithm and for calculating the fitness or global efficiency Sociometry is used.

- B.E. Major Project Title: **Healthcare System using Cloud Computing**
  - Developing a online platform for hospital using Web Technology and Cloud computing.

- B.E. Minor Project Title: **Digital Watermarking**
  - Hiding a text message behind an image for security of text message, using C language.

Technical Skills

- **Technical Subjects**
  - Data-Structures, Algorithms, Operating Systems, Computer Vision, Machine Learning

- **Programming languages**
  - Languages: C/C++, Python
  - Packages: MATLAB, LaTeX

Achievements

- Currently, in PhD programme, I am receiving fellowship from MHRD (as a Teaching Assistant).

- Received fellowship from MHRD during M.Tech. Programme (July 2016 - June 2018).

- NET-2017 Qualified for Assistant Professor.

- GATE-2018 Qualified with score 421.

- GATE-2016 Qualified with score 437.

Teaching Assistantship

- Jan 2020-ongoing: Computer Vision (During PhD)

- July 2019-Nov 2019: Machine Learning (During PhD)

- Jan 2019-April 2019: Embedded Systems (During PhD)

- July 2017-Nov 2017: SCILAB (During M.Tech.)

- Jan 2018-April 2018: Social network analysis (During M.Tech.)

Personal Information

Name:	Vivek Singh Baghel
Father's name:	Late Mr. Shersingh Baghel
Mother's name:	Mrs. Pushpa Baghel
Date of Birth:	29 August, 1992
Gender:	Male
Present Address:	Amrit Sagar, near IIT Indore campus, Simrol, Indore-452020, MP, India.

References

- **Dr. Surya Prakash**
  Associate Professor and Head, CSE, IIT Indore
  Email-id: surya@iiti.ac.in

- **Dr. Puneet Gupta**
  Assistant Professor, CSE, IIT Indore
  Email-id: puneet@iiti.ac.in

- **Dr. S. Durga Bhavani**
  Associate Professor, SCIS UoH
  Email-id: sdbcs@uohyd.ernet.in

Declaration

I hereby declare that all the information mentioned in my curriculum vitae is true and correct to my knowledge.

Date: 08/02/2020
Place: Indore, India   **Vivek Singh Baghel**