



# SRINIVAS UNIVERSITY

Mangalore-575001, Karnataka (India)

Srinivas Atomic Research Centre in Biometric  
Recognition or Identification System

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## About:

The rapid growth of information and communication technology resulted in abundant data and information growth in every field with the necessity for high data security. Biometrics innovation has ended up being a precise and proficient response to the security issue. Biometrics is a developing field of research as of late and has been dedicated to the distinguishing proof or authentication of people utilizing one or multiple inherent physical or behavioral characteristics. Among these biometric innovations, hand based biometrics, including unique finger impression or fingerprint, two-dimensional and three-dimensional palm prints, hand geometry or hand shape, hand vein, finger-knuckle print and so forth., are the most mainstream and have the biggest offer in the biometric identification methods.

## Objective:

The Objective of this research center is to study or develop a new or existing innovative method of biometric identification techniques and to help or assist in reaching new innovations to new researchers and common people.

## Journal Publications:

[1] Krishna Prasad, K. & Aithal, P.S. (2017). A Critical Study on Fingerprint Image Sensing and Acquisition Technology. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, 1(2), 86-92. DOI: <http://dx.doi.org/10.5281/zenodo.1130581>

[2] Krishna Prasad, K. & Aithal, P.S. (2017). A Conceptual Study on Image Enhancement Techniques for Fingerprint Images. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 1(1), 63-72. DOI: <http://dx.doi.org/10.5281/zenodo.831678>

[3] Krishna Prasad, K. & Aithal, P.S. (2017). Literature Review on Fingerprint Level 1 and Level 2 Features Enhancement to Improve Quality of Image. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 2(2), 8-19.

DOI: <http://dx.doi.org/10.5281/zenodo.835608>

- [4] Krishna Prasad, K. & Aithal, P.S. (2017). Fingerprint Image Segmentation: A Review of State of the Art Techniques. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 2(2), 28-39. DOI: <http://dx.doi.org/10.5281/zenodo.848191>
- [5] Krishna Prasad, K. & Aithal, P.S. (2017). A Novel Method to Contrast Dominating Gray Levels during Image contrast Adjustment using Modified Histogram Equalization. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 1(2), 27-39. DOI: <http://dx.doi.org/10.5281/zenodo.896653>
- [6] Krishna Prasad, K. & Aithal, P.S. (2017). Two Dimensional Clipping Based Segmentation Algorithm for Grayscale Fingerprint Images. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 1(2), 51-65.  
DOI: <http://dx.doi.org/10.5281/zenodo.1037627>.
- [7] Krishna Prasad, K. & Aithal, P.S. (2017). A conceptual Study on Fingerprint Thinning Process based on Edge Prediction. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 1(2), 98-111.  
DOI: <http://dx.doi.org/10.5281/zenodo.1067110>
- [8] Krishna Prasad, K. & Aithal, P.S. (2017). A Study on Fingerprint Hash Code Generation using Euclidean Distance for Identifying a User. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 2(2), 116-126.  
DOI : <http://doi.org/10.5281/zenodo.1133545>
- [9] Krishna Prasad, K. & Aithal, P.S. (2018). An Alternative Approach to Fingerprint Hash Code Generation based on Modified Filtering Techniques. *International Journal of Innovative Research in Management, Engineering And Technology*, 2(12), 1-13.  
DOI: [IJRMET1602012001](http://dx.doi.org/10.5281/zenodo.1133545)
- [10] Krishna Prasad, K. & Aithal, P. S. (2018). A Study on Multifactor Authentication Model Using Fingerprint Hash Code, Password and OTP. *International Journal of Advanced Trends in Engineering and Technology*, 3(1), 1-11. DOI : <http://doi.org/10.5281/zenodo.1135255>.
- [11] Krishna Prasad, K. & Aithal, P. S. (2018). A Study on Fingerprint Hash Code Generation Based on MD5 Algorithm and Freeman Chain Code. *International Journal of Computational Research and Development*. 3(1), 13-22.  
DOI : <http://doi.org/10.5281/zenodo.1144555>.
- [12] Krishna Prasad, K. & Aithal, P.S. (2018). A Comparative Study on Fingerprint Hash Code, OTP, and Password based Multifactor Authentication Model with an Ideal System and Existing Systems. *International Journal and Advanced Scientific Research*, 3(1), 18-32.  
DOI : <http://doi.org/10.5281/zenodo.1149587>
- [13] Krishna Prasad, K. & Aithal, P. S. (2018). A Novel Tuning Based Contrast Adjustment Algorithm for Grayscale Fingerprint Image. *Saudi Journal of Engineering and Technology (SJEAT)*, 3(1), 15-23. DOI: <http://10.21276/sjeat.2018.3.1.3>
- [14] Krishna Prasad, K. & Aithal, P.S. (2018). ABCD Analysis of Fingerprint Hash Code, Password and OTP based Multifactor Authentication Model. *Saudi Journal of Business and Management Studies*, 3(1), 65-80. DOI: <http://10.21276/sjbms.2018.3.1.10>
- [15] Krishna Prasad, K. & Aithal, P.S. (2018). A Study on Pre and Post Processing of Fingerprint Thinned Image to Remove Spurious Minutiae from Minutiae Table. *International Journal of Current Research and Modern Education*, 3(1), 197-212.

### **Conference Publications :**

- [1] K. Krishna Prasad & Dr. P. S. Aithal, An Alternative Approach to Fingerprint Hash Code Generation based on Modified Filtering Techniques. International Conference on Advances in Sciences, Engineering & Management (ICASEM-2018), 21<sup>st</sup> January 2018, Mangaluru, India. ISBN No.: 9788193221396.
- [2] K. Krishna Prasad & Dr. P. S. Aithal, A Study on Fingerprint Hash Code generation Using Euclidean Distance for Identifying a User. National Conference on Innovation and Implications in Information Technology, mangagement, Social Sciences and Education, 23<sup>rd</sup> December 2017, SIMS, Mangalore, India.
- [3] K. Krishna Prasad & Dr. P. S. Aithal, A Study on Existing Fingerprint Image Segmentation Algorithms. National Conference on Implications of Research in Banking, Management, IT, Education and Social Sciences, 18-19<sup>th</sup> August 2017, SIMS Mangalore, India. ISBN No.: 978-93-5281-474-9.
- [4] K. Krishna Prasad & Dr. P. S. Aithal, Fingerprint Image Sensing Technology: A Review of State of the Art Methods. National Conference on Balancing Human Work Life, 30<sup>th</sup> October 2017, SIMS Mangalore, India. ISBN No.: 978-93-5291-481-4.
- [5] K. Krishna Prasad & Dr. P.S. Aithal, A Literature Survey On Face Recognition Techniques: Applications To User Identification And Verification Process. Current Developments in Computer Science, IT & its Impact on Management, Social Sciences and Education. (November 2016), ISBN No.: 978-93-5265-655-4.

### **Working Papers:**

1. A literature Survey on Voice Biometric Recognition
2. A study on Mobile Biometrics as Training and Test Database for face and voice identification/verification.
3. A study on various Biometrics traits for Person Verification or Identification.
4. A study on different types of vulnerabilities and threats in Biometric Identification
5. A study on Multimodal Biometrics Identification for higher securities
6. A study on Multifactor Authentication Model using Iris and Fingerprint recognition

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### **Email and Links of Popular Research Work Uploading Sites**

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[SSRN Profile](http://hq.ssrn.com/submissions/MyPapers.cfm?partid=2550275) (<http://hq.ssrn.com/submissions/MyPapers.cfm?partid=2550275>)  
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