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Design of Secure Communication Schemes to Provide Authentication and Integrity Among the IoT Devices

Vidya Rao Dr.

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Professional Experience

Worked as Assistant Professor at AMC Engineering College, Bangalore from 2013 to 2016, then was employed as Research Scholar at Manipal Institute of Technology, Manipal, India from 2017-Jan 2021. Later, worked at Jyothi Institute of Technology for 6 months and currently working at the Department of Data Science and Computer Applications, Manipal Institute of Technology, MAHE, Manipal.

Computer Skills

*Programming in C, SQL, JAVA, Python
Platform used MATLAB, Eclipse, PyCharm
Hands-on Arduino and Raspberry Pi Programming
Knowledge on Microsoft Office & Latex*

Personal Skills

*Good communication skills
Attention to details
Responsible and honest
Quick Learner
Hardworking*

Professional Training

*Internet of Things device programming
Raspberry Pi and Arduino coding
Oracle 10g programming
Machine learning using Python
Cryptography and network security
Penetration Testing using Kali Linux
Triple Certification in Cyber Security-ISAC*

Career Activities

*Participated in International Conference
Infosys Campus connect Member
Editorial team member of Magazines*

Languages

*Kannada-Native
English-Speak, Read & Write
Hindi- Speak, Read
German – Beginner*

Research Interest

*Cyber Security
Autonomous Vehicles
Internet of Things Applications
Data Analytics*

Hobbies

*Reading Inspirational Books
Photography
Exploring hardware technologies
Robotics and Artificial Intelligent*

Objective

To obtain a purposeful and challenging position that enables me to utilize my technical and research skills for the growth of the Company.

Education

Ph.D.		Computer Science and Engineering, End-to-End device security for the Internet of Things,
University		Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal.
Year		2017-2021
M. Tech		Computer Network Engineering
University		VTU, Belagavi, Karnataka, India
Year		2011-2013
Grade		First Class
B.E		Computer Science & Engineering
University		VTU, Belagavi, Karnataka, India
Year		2006-2010
Grade		First Class

Publications

- "*DEC-LADE: Dual Elliptic Curve Based Lightweight Authentication and Data Encryption Scheme for Resource Constrained Smart Devices*", IET-WSS Journal, [Accepted].
- "*A Review on Lightweight Cryptography for Internet-of-Things Based Applications*", Springer-AIHC Journal, doi.org/10.1007/s12652-020-02672-x.
- "*Light-weight hashing method for user authentication in Internet-of-Things*", (2019) Ad Hoc Networks, 89, pp. 97-106, DOI: 10.1016/j.adhoc.2019.03.003.
- "*SEAD: Source Encrypted Authentic Data for Wireless Sensor Networks*", International Journal of Engineering Research and Development, (IJERD), PP.01-16 Volume 11, Issue 03, March 2015.

Achievements and Awards

- Twice best paper awards in IEEE based conferences.

References:

1. *Dr. Prema K.V.,*
   Professor and Ph.D Guide,
   Department of CS&E, MIT, MAHE,Manipal.
   Email: prema.kv@manipal.edu
2. *Dr. U. C. Niranjan,*
   Director of Research and Training,Manipal Dot Net Pvt Ltd. Manipal.
   Email: ucniranjan@yahoo.com
3. *Dr. G.G. Sivasankari,*
   Senior Lead Analytic Consultant,
   Wells Fargo, Dallas, Texas.
   Email: mailtosiva2015@gmail.com