




# DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)

Opp. Art of Living, Udayapura, Kanakapura Road, Bangalore- 560082

**DEPARTMENT OF Artificial Intelligence and Machine learning & ENGINEERING**

Accredited NBA, NAAC with A+, New Delhi

<b>Faculty Name</b>	<b>Dr.Manu A R.</b>	
<b>Academic Designation</b>	<b>Associate Professor</b>	
<b>Educational Qualification</b>	<b>M.Tech, Ph.D</b>	
<b>Experience in Years</b>	<b>15 years</b>	
<b>Area of Interest</b>	Data Science, Artificial Intelligence and Machine Learning, Security and Privacy Issues in Cloud Computing, Software Engineering, and Operating System. Docker Container, Dev-Ops, Distributed event base systems, SCRUM.	
<b>Date of Birth</b>		
<b>Aadhar No</b>		
<b>PAN No</b>		
<b>Email ID</b>	manu.ambaravikumar@gmail.com; 010517@imail.iitm.ac.in; manu.ar@manipal.edu; drmanu.ar-aiml@dsatm.edu.in;	

## Educational Details

- Post Doc in CSE from IIT Madras, 2021
- Ph.D. in Computer Science and Engineering from CORI Lab, PESIT, Bangalore affiliated to Visvesvaraya Technological University (VTU) in Regular Mode, Full time in year 2012-2019, with Fellowship from TEQIP Phase-II.
- M.Tech in Computer Science and Engineering (8.2CGPA-First Class) from Faculty of Computer Science Dept, Manasagangothri Mysore University of Mysore Regular Mode, Full time, in year 2007-2009.

## Personal Details

- Date of Birth: 28/12/1980
- Hobbies: Painting, reading, cycling, swimming
- Languages Known: English, Kannada and Hindi

## Professional Experience

- **Worked as Assistant Professor Senior Scale, Department of ICT, Manipal institute of Technology, Bangalore June 2022 to June 2023.**
- **Was working as Associate Professor in Dept. of Computer Science and Engineering, Jyothy Institute of Technology, JIT, Bangalore, till Dec 2021.**
- **Post Doc from IITM, Madras, Tamilnadu, India, Feb 2020 Till Feb 2021**
- **Mphasis Technologies, an HP company, Bangalore, Worked as Senior Delivery Senior Software Engineer, from 2<sup>nd</sup> March 2010 to September 2011.**
- **Research and Teaching Assistant.** Department of computational Physics, National Institute of Technology - NITK, Surathkal, Mangalore, Karnataka, India. 2011-12.

- **M.Tech Project and Worked as Research Associate in IISC- Indian Institute of Science,(IISC), Super Computer Education Research Centre (SERC), Bangalore, 1<sup>st</sup> June, 2008 to June 2009.**

## Publications

### International Journals:

- Manu A.R Ph.D, Guruprasad Gadgil, Ph.D, Victor Prybutok, Ph.D., CQE, CQA, CMQ/OE, PSTAT, S. Balaji Ph.D., Manu M. N Ph.D., Mr. Gowtham M, B.E, M.Tech, "A Multi-lateral Password Approach for Robust Multi-category Based Multi-factor Privacy Preserving Authentication for Pervasive Cloud Services", Manuscript number: COSE-D-21-01197 **Journal title: Computers & Security, Elsevier Publishers, (Accepted for Publication with Minor Review in Editorial office).**
- Manu A.R Ph.D, Guruprasad Gadgil, Ph.D, Victor Prybutok, Ph.D., CQE, CQA, CMQ/OE, PSTAT, S. Balaji Ph.D., Manu M. N Ph.D., Mr. Gowtham M, B.E, M.Tech," A CNN Model for Computer-Aided Diagnosis of the Lung Cancer and Omicron variant of COVID-19 Corona Virus and its impact after infection- A detailed Investigation", **IEEE-Transactions-On-Artificial-Intelligence, Submitted for Journal, (Under Review).**
- Manu A.R Ph.D, Guruprasad Gadgil, Ph.D, Victor Prybutok, Ph.D., CQE, CQA, CMQ/OE, PSTAT, Manu M. N Ph.D., "Architectural Entropy in Architecture and Design, Investigation of Refactoring as a potential solution to alienate the AE and Architectural scope creep management– A Case Study", **ACM Transactions on Software Engineering and Methodology", (Under process).**
- Manu A.R Ph.D, Guruprasad Gadgil, Ph.D, Victor Prybutok, Ph.D., CQE, CQA, CMQ/OE, PSTAT, S. Manu M. N Ph.D., "Block chain Based Peer to Peer Money Transfer Using Cryptocurrency Digital Wallet" A detailed Investigation", **IEEE-Transactions-On-Artificial-Intelligence, Submitted for Journal, (Under Process).**
- Manu A.R Ph.D, Guruprasad Gadgil, Ph.D, Victor Prybutok, Ph.D., CQE, CQA, CMQ/OE, PSTAT,, Manu M. N Ph.D., "Phishing detection using convolution neural network & RCNN", **A detailed Investigation", IEEE-Transactions-On-Artificial-Intelligence, Submitted for Journal, (Under Process).**
- Manu A.R, Vinod Kumar Agrawal, K.N. Bala Subramanya Murthy," CCS Architectural entropy – an in-depth case study of security debt and architecture scope creep" **International Journal of Pure and Applied Mathematics, Special Issue, Volume 119 No. 15, PP-389-426, 2018, Scopus Indexed.**
- Manu A.R, Vinod Kumar Agrawal, K.N. Bala Subramanya Murthy, "CCS Architectonic Design Refactoring as a potential solution to alienate the AE and Architectural scope creep management– A Case Study," **International Journal of Collaborative Intelligence, Inderscience Publications, 2018.**
- Manu A.R, V K Agrawal, K.N. Bala Subramanya Murthy, Suma V, "Exploring Cloud Computing Technological Test Debt", **International Journal of Control Theory and Applications (IJCTA) (Scopus Indexed), 10(9), 2017, pp. 327-351, International Science Press, Scopus Indexed.[CITED BY 2].**
- Manu A. R, V. K Agrawal, K N Bala Subramanya Murthy, "A Study on Security and Privacy Issues of Cloud Eco-System", **International Journal of Applied Information Systems (IJAIS), Volume 5 – No. 5, April 2013. [CITED BY 4].**
- Manu A R, Manoj Kumar M, Dinesha H A, V. K Agrawal, K N Bala Subramanya Murthy, "An Approach to Enhance Security of Cloud Computing Services using Software Engineering Model", **International Journal of Computer Applications, Volume 67– No.11, April 2013. [CITED BY 2].**

- Manu A R, V K Agrawal PhD, K N Balasubramanya Murthy PhD, “Representation of cloud ecosystem using engineering methodologies”, **International Journal of Computers Technology, Vol. 7, No 1, M a y 30, 2 0 1 3. [CITED BY 1].**
- Brunda P Manoj Kumar, Manu A.R, “A study on texture feature analysis and effect of window size on texture”, **International Society of Thesis Publication, Journal of Research in Electrical and Electronics Engineering, Volume 2, Issue 1, 2013, Springer Publications.**

### **International Conferences:**

1. Manu A R, V K Agrawal, K N Balasubramanya Murthy, Manoj Kumar M, “Towards realizing the Secured Multilateral Cooperative Computing Architectural framework”, **IEEE – IBM, International Conference on Cloud Computing for Emerging Markets 2014, (IEEE-CCEM- 2014). [CITED BY 5]**
2. Manu A R, Jitendra Kumar Patel, Shakil Akthar, V K Agrawal, K N Balasubramanya Murthy, “Docker Container Security via Heuristics-Based Multilateral Security-Conceptual and Pragmatic Study”, **2016 IEEE - International Conference on Circuit, Power and Computing Technologies (ICCPCT). [CITED BY 52]**
3. Manu A R, Jitendra Kumar Patel, Shakil Akthar, V K Agrawal, K N Balasubramanya Murthy, “A Study, Analysis and deep dive on Cloud PAAS security in terms of Docker Container security”, **IEEE- International Conference on Circuit, Power and Computing Technologies (ICCPCT). [CITED BY 33]**
4. Manu A. R, V K Agrawal, K N Bala Subramanya Murthy, “An empirical hunt for ally co-operative cloud computing utility”, **IEEE 11<sup>th</sup> - International Conference on Intelligent Systems and Control (ISCO), 2017. [CITED BY 2]**
5. Manu, A. R, Shakil Akhtar, V K Agrawal, K. N. Bala Subramanya Murthy, V. Suma, “Exploring the Architectural Entropy in Cloud Computing System”, published: 28 December 2017, **The Springer Joint Conference on ICICA 2016, and 3rd ICPCIT-2016, on 20th-22nd December, 2016, published in Springer Proceedings– Advances in Intelligent Systems and Computing (AISC). book series (AISC, volume 632), pp 615-630, International Conference on Intelligent Computing and Applications. [CITED BY 2]**
6. Manu A.R, V K Agrawal, K.N. Bala Subramanya Murthy, “The Case study on architecture entropy (AE) identification and alleviation”, **IEEE - International Conference on Innovations in Engineering, Technology and Sciences” (ICIETS), IEEE, September 2018.**
7. Manu A R, V K Agrawal PhD, K N Balasubramanya Murthy PhD, “A User Identification Technique to Access Big Data Using Cloud Services”, **“ACM, Conference-DEBS, Conference on Distributed Event Base Systems, - Doctoral Symposium, May, 2014, held at IIT Bombay, Powai, Mumbai, India—[Cited By 5].**
8. Manoj Kumar M, Honnaraju B, Manu A.R, “Simple approach for Image Encryption in Android Smart Phones”, **International Conference on Electronic Design and Signal Processing, ICEDSP 2012.**
9. Manu A R, Manoj Kumar M, Dinesha H A, V. K Agrawal, K N Bala Subramanya Murthy, “Comprehension of the Architectural Entropy in Cloud Computing Ecosystem”, **“IEEE- International Conference on Innovations in Engineering, Technology and Sciences” (ICIETS), IEEE, September 2018.**
10. Manu A R, Manoj Kumar M, Dinesha H A, V. K Agrawal, K N Bala Subramanya Murthy, “Comprehension of the Architectural Entropy in Cloud Computing Ecosystem”, **“IEEE- International Conference on Innovations in Engineering, Technology and Sciences” (ICIETS), IEEE, September 2018.**
11. Manu A. R, Dinesh H A, Manoj Kumar M, V K Agrawal, K N Bala Subramanya Murthy, “Design and Development of the Multilateral Password to enable a Robust Multi-

category based multifactor Authentication for cloud services”, “**IEEE-International Conference on cloud computing emerging markets, IEEE -CCEM, September 2018.**

12. Parth Bhatnagar , Manu A R , Naresh E, Shiva Darshan S L, and Gururaj H L, “Multilingual approach to decode Shree Rama Prashnavali using Character Recognition and String Matching”, 4<sup>th</sup> International conference on Data science and its applications (ICDSA 2023), Malaviya National Institute of Technology, Jaipur, India, July 14-15<sup>th</sup> 2023,

**National Conferences:**

nil

**Conference Attended**

- **IEEE – IBM, International Conference on Cloud Computing for Emerging Markets 2014, (IEEE-CCEM- 2014)**
- **2016 IEEE - International Conference on Circuit, Power and Computing Technologies (ICCPCT).**
- **ACM, Conference-DEBS, Conference on Distributed Event Base Systems, - Doctoral Symposium, May, 2014, held at IIT Bombay, Powai, Mumbai, India.**
- **IEEE 11<sup>th</sup> - International Conference on Intelligent Systems and Control (ISCO), 2017.**
- **The Springer Joint Conference on ICICA 2016, and 3rd ICPCIT-2016, on 20th-22nd December, 2016, published in Springer Proceedings– Advances in Intelligent Systems and Computing (AISC). book series (AISC, volume 632), pp 615-630, International Conference on Intelligent Computing and Applications.**
- **IEEE - International Conference on Innovations in Engineering, Technology and Sciences” (ICIETS), IEEE, September 2018.**
- **International Conference on Electronic Design and Signal Processing, ICEDSP 2012.**
- **“IEEE- International Conference on Innovations in Engineering, Technology and Sciences” (ICIETS), IEEE, September 2018.**

**Awards**

Received TEQIP Phase II Scholarship to pursue PhD

## Academic Activity

Programming using C, COBOL, Python, R, UNIX Shell Scripting, MATLAB, Artificial Intelligence and Machine learning, Docker Container.

Working with industry and government on applied R&D, and design and oversight of very large research projects,

### Professional Activities

Reviewer of IEEE Systems Journal.

Reviewer of Computer Modeling in Engineering and Sciences.

Reviewer of Springer The Journal of Supercomputing.

Reviewer of Journal of Computer Science. scipub Science Publications.

## Faculty Development Activity/Workshops

### Membership and Associations

- IEEE member.
- ACM Member.
- IETE, Bangalore, Life time Member.
- Computer Society of India, Bangalore, Life Time Member.

## Contact Details

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