

**Dr.S.Appavu alias Balamurugan,B.E,M.E,Ph.D,Postdoc(IITR)  
Professor**

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#### **RESEARCH INTEREST:**

I am keen interest in machine learning and data mining research and its application to real life problems including Healthcare, Traffic Management, Precision Agriculture, Clinical Data Analytics, Electricity Demand Forecasting, Environment and people health and my particular focus is on feature selection, optimal classifier design, and impacts of Data Quality Checking and feature selection on improved prediction performance. I have created new algorithms and frameworks for effective data classification and attribute selection of high dimensional data sets. My research contribution aims at providing completely new perspective into the field of Data classification and feature selection by using hybrid algorithms through a various novel technique. My current Research interests focused on exploring the Data mining, Machine Learning Big Data Analytics and Data Science use cases for life science applications.

I am having 35 publications in SCI Indexed Journals and 50 Publications in Scopus Indexed Journal and Produced 23 Ph.D. candidates. I am having cumulative impact factor of 105.16, and 1081 citations for my research publications.

I have demonstrated independent research excellence to carry out research in the chosen theme area such as Data Science and Machine Learning. I have also conceived new machine learning algorithm during the course of my Ph. D namely ID6NB, NB+ and AVD Classifier which has been cited in Wikipedia. I have received grant from various funding agencies including DST, AICTE, ICSSR and UGC for major research projects. For the benefit of the research community, I have conducted funded seminar, workshop, workshop and conference in the area of Data Science, Machine Learning and Artificial Intelligence with financial support from government funding agencies including ISRO, AICTE, CSIR and DRDO.

I have received awards from both Government and Private Organization including Early Career Research Award-DST, ICSSR -Impress Award, Dr.A.P.J.Abdul Kalam Award, Best Academic Researcher 2016, Best Computer Science Faculty Award 2017, DST Travel Grant Award, UGC Travel Grant Award. I have presented papers in reputed conferences held in India and Abroad. I have delivered invited talks on emerging topics in many areas

of computer science. I have established myself as a front runner in my chosen field and my research contributions.

### **SUMMARY OF PROFESSIONAL PROFILE:**

**Area of Specialization:** Artificial Intelligence, Machine Learning, Deep Learning, Data Science, Cognitive Science, Internet of Things, Sensor Computing, Big Data Analytics, Integrated cross-disciplinary studies of the Healthcare, Agriculture and Environment.

Publications in International Peer Reviewer Journals: **110**

Publications in SCI Indexed Journals (Web of Science): **35**

Publications in Scopus Indexed Journals-**50**

Publications in IEEE Transactions- **02**

Publications in Elsevier Journals –**10**

Publications in Springer Journals–**08**

### **Significant Journal Publications**

- IEEE Transaction on Engineering Management
- IEEE Access
- Knowledge based system-Elsevier
- Expert Systems with Applications –Elsevier
- Applied Soft Computing –Elsevier
- Information Processing Letters-Elsevier
- Neural Network World, Royal Society
  - Aeronautical Journal
- Indian Journal of Pharmacology
- Business Intelligence and Data mining-Inderscience
- Applied Computing and Informatics-Elsevier
- Uncertainty, Fuzziness and Knowledge Based Systems-World Scientific
- Information and Knowledge Management-World scientific
- Informatics in Medicine Unlocked –Elsevier
- Ambient Intelligence and Humanized Computing –Springer
- Computational Intelligence Systems-Springer
- Journal of Environmental Protection and Ecology-Balkan Environmental Association &Wiley Publisher.
- Automation and Computing-Springer

Publication in International and National Conference Proceedings-**110**

**Number of PhDs Supervised and Awarded:23**

Number of PhDs Supervised-Ongoing:**03**

International Scientific Books Published: **06**

Text Book Published: **01**

Publications in Book Chapter: **09**

**Research Project Completed: 04 (UGC, DST-SERB, AICTE, ICSSR)**

**Patent Granted: 05**

Patent Filed: **01**

Cumulative Impact Factor: **105.16**

**Citation Count: 1081; H-Index: 18; i10-Index: 34**

#### **Awards Received:**

DST-SERB Early Career Research Award, ICSSR-Impress Award,

DST Travel Grant Award,

UGC Travel Grant Award,

Best Academic Researcher 2015,

Dr.APJ Abdul Kalam Award, Young Faculty Award,

ASDF Best Computer Science Faculty 2016 and

ASDF Best Scientific Researcher 2017

#### **Paper Presented at International Conference Abroad:**

▶ National University of Singapore

▶ SIAM University Thailand

▶ BITS Pilani Dubai Campus-Dubai

▶ Malaysia

▶ Singapore

▶ SriLanka

#### **EDUCATION SUMMARY**

**Post Doctoral Researcher -AI-ML**, Indian Institute of Technology Roorkee (IITR)

**Doctor of Philosophy (PhD)-Computer Science and Engineering-** Enhancing the Performance of Classification algorithms through Data set Tuning, Feature Selection and Exception Handling, Anna University, Chennai, (Awarded in 2009)

**M.E, Computer Science and Engineering**, University of Madras, Chennai (Awarded in 2003)

**B.E, Electronics and Communication Engineering**, Madurai Kamaraj University, Madurai (Awarded in 2001)

## **EXPERIENCE SUMMARY**

Professor, Department of Computer Science and Engineering, Periyar Maniammai Institute of Science & Technology (PMIST), Thanjavur (From February 2023 onwards)

Research Director & Professor, Department of Computer Science and Engineering, E.G.S Pillay Engineering College (Autonomous), Nagapattinam

Professor & Head, Department of Information Technology, K.L.N College of Information Technology, Madurai

Assistant Professor, Department of Information Technology, Thiagarajar College of Engineering (A Govt.Aided Autonomous Institution), Madurai

## **PEDAGOGY**

- Taught Database Technology, Artificial Intelligence, Machine Learning, Data Analytics, Knowledge Engineering, Databases Practice, Neural Networks and its applications, Data Mining, Data Warehousing, Software Engineering, Software Project Management, Open-Source Data mining Tools spanning the entire academic career.
- Served as Member in Board of Studies and contributed in developing the syllabus for Distributed DBMS, Knowledge Engineering, Databases Practice, Databases Principles and Design Databases Laboratory, Data Mining.
- Served as Head of Data mining and Machine Learning Special Interest Group: which resulted in Mini Projects and publications in Conferences and Journals and participation in Open challenges.
- Served as R&D Director and Conducted R&D Forum Meetings and Delivered Presentations on Funding, Publishing etc.

## **PROFESSIONAL MEMBERSHIPS**

- Life Member of Computer Society of India
- Life Member of ASDF International Society
- Member IEEE
- Life Member of ISTE

## **REVIEWER/EDITORSHIP OF SCHOLARLY PUBLICATIONS**

Guest Editor for the Special Issue Call “Computer Vision and IoT for Virtual Assistants and Healthcare Applications, International Journal of Artificial Intelligence, Tech Science Press.

## **Reviewer in the following journals**

- IEEE Transactions on System, Man and Cybernetics Part C
- IEEE Transactions on Engineering Management
- IEEE Transactions on Intelligent Systems
- Taylor and Francis – Computer Mathematics
- Elsevier – Pattern Recognition Letter
- Elsevier- Expert Systems with Applications
- Elsevier – Knowledge Based Systems
- Journal of Engineering Science and Technology
- Springer- Verlag – Zhejiang University Science C (Computers & Electronics)
- Springer-Verlag – Automation and Computing
- International Journal of Information Processing and Management
- International Journal of Computers and Electrical Engineering
- Springer- International Journal of Computational Intelligence Systems
- Other Reputed Journals.

## **SPONSORED WORKSHOP/SEMINAR/CONFERENCE ORGANIZED AS CONVENER**

- ▶AICTE Sponsored National Level Conference on Knowledge Discovery and Data mining
- ▶ISRO Sponsored Indian conference on Data mining, Data analytics, Big Data and Data Science
- ▶ICMR Sponsored National workshop on Exploring the impact of data analytics for healthcare
- ▶Anna University Chennai Sponsored FDP on Artificial Intelligence
- ▶AICTE Sponsored International Seminar on Big Data Analytics with state of Art Experimentation on E-Governance, Healthcare and Educational Systems
- ▶ISRO Sponsored National workshop on Advanced Research Techniques for Satellite Image Analysis using Image Processing Techniques
- ▶Anna University Chennai Sponsored FDP on Information Technology Essentials
- ▶IEI Sponsored Two Days National Workshop on IOT and its Applications

## **INVITED TALK ABROAD**

Invited Speaker on AI-ML for Smart Precision Irrigation, First International Conference on Food Innovation and Smart Farm, Rajamangala University, Thanyaburi, Thailand, July 2019.