

Dr. V. Arul Kumar., M. Sc, M.Phil., Ph.D., SET

Assistant Professor

Department of Data Science

St. Joseph's College (Autonomous)

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Educational Details

- **Ph.D. (Computer Science)**
St. Joseph's College (Autonomous), Trichy.
2013
- **M.Phil.(Computer Science),**
St. Joseph's College (Autonomous), Trichy
Class/Grade: 1st class with Distinction, 2009
- **M.Sc. (Information Technology),**
K.S.R College of Technology, Tiruchengode
Class/Grade: 1st class, 2006
- **B.Sc. (Computer Technology),**
K.S.R College of Technology, Tiruchengode
Class/Grade: 1st class, 2003

Additional Qualification

- **State Eligibility Test(SET)**
2018

Certifications

- **DCHT**
(Diploma in Computer Hardware Technology)
TREC STEP, Trichy
- **Oracle Workforce Development Program**
Introduction to Oracle 9i-SQL
NIIT, Chennai
- **Certificate in Developing Enterprise Applications using .NET Framework**
NIIT, Chennai
- **Certificate in Developing Enterprise Applications & Web Services using J2EE Technologies**
NIIT, Chennai
- **Advanced Diploma in High End Software Technology**
PALPAP Institute of Technology, Chennai.

Research Experience

1. Research Papers Presented / Published: **Total number of papers : 29**
International Journals : 21
International Conferences : 05
National Conferences : 03
2. Specialization : **Data Mining**
Cognitive Science
3. Guided 13 M. Phil Research Scholars.
4. Having Ph.D Guideship at Bharathidasan University
5. BOE Member, School of Applied Sciences, REVA University
6. Served as a Resource Person for Various National and International Conferences and Workshops.

Teaching Experience

- 1 Research Experience : **9 years**
- 2 P.G. (MCA, M.Sc - CS), and U.G. (B.Sc – CS, BCA) Teaching Experience : **8 years**

Minor Research Project

1. Principal Investigator for **UGC sponsored Minor Research Project** titled “A Recommender System for Improving Academic Performance of the Students Based on Emotional Quotient, Intelligent Quotient and Learning Behavior” – 2014 to 2016. (**Sanctioned Amount: Rs. 1,50,000.00/=**)

Conferences / Workshops / Seminars / Webinars Attended

- AICTE Approved One Week Short Term Training Program on "Data Analytics with Python", organized by Department of Electronics and Telecommunication, Sandip Institute of Engineering and Management Nashik, Maharashtra, 24th to 28th May, 2021.
- One Day Webinar on “Accelerators / Incubation-Opportunities for the students and Faculties-Early Stages Entrepreneurs”, organised by Department of E&TC, IETE Students Forum(ISF) and Centre of Incubation, Innovation and Entrepreneur Development Cell (CIED-CELL), Bhivarabai Sawant Institute of Technology and Research, Wagholi Pune, 27th May 2021
- One Day workshop on “Call for Code using IoT” organised by Department of Computer Science and Engineering in collaboration with IBM Private Limited, Chalapathi Institute of Engineering & Technology, Guntur, 27th May 2021
- National Faculty Development Programme on “Role of Faculty in Moulding Students”, organised by HKBK Degree College, Bangalore, 24th to 26th May 2021.
- International Webinar on “Introduction and Overview of Networking Technologies, Opportunities and Challenges”, Organised by Department of Computer Science and Engineering, School of Computing, Bharath Institute of Higher Education and Research, Chennai, 21st May 2021.

- National Webinar on “Role of Teachers in Motivating, Inspiring and Imparting Value Education in Virtual Classrooms”, jointly organised by Centre for Capacity Building Programmes for School Teachers, Tamilnadu Teachers Education University, Chennai and Sri Paramakalyani Schools Alwarkurichi, 28th April 2021.
- National Webinar on Intellectual Property Rights-Way Towards Make in India, Organised by IQAC and Department of Computer Application, Gopikabai Sitaram Gawande Mahavidyalaya, Umarkhed, 31st March 2021
- Two Days Webinar on “IPR/Patents for startup, Incubator, Iorganised nnovation – Centre”, Organised by Mechanical Engineering Department, Poojya Doddappa Appa College of Engineering, Kalaburagi, 22nd & 23rd March 2021
- One Week Faculty Development Programme on “Recent Advancement in Machine Learning and Artificial Intelligence”, organised by Rajasthan Technical University, Kota, Poonima College of Engineering, Jaipur, 16th to 20th March 2021
- National Webinar on “Machine Learning using Python”, organised by Department of Computer Science, Vikrama Simhapuri University, Nellore, 15th March 2021
- AICTE Funded Online Short Term Training Program (STTP) on “Digital Skill Development for Professionals” (Phase-III), organized by Jayawant Shikshan Prasarak Mandal’s (JSPM’s) Bhivarabai Sawant Institute of Technology and Research (BSIOTR), Wagholi Pune, 22nd to 28th February 2021
- DST-SERB Sponsored National Workshop on Deep Learning for Image Processing Applications, organised by Department of Computer Science, Pondicherry University, Puducherry, 28th & 29th January 2021
- AICTE Sponsored Short Term Training Programme(STTP) on Recent Trends and Challenges in Data Science, organised by PG Department of Computer Applications, Hindustan College of Arts and Science, Coimbatore, 18th to 23rd January 2021
- Faculty Development Programme on Data Science organised by E&ICT Academy, NIT Warangal, and Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology, Chennai, 2nd to 11th January 2021
- Five Days International e-Seminar on Recent Research in Mathematics (ISRRM-2020), organized by Department of Mathematics, School of Science, Gandhi Institute of Technology and Management (Gitam), Bengaluru, 11th to 15th September 2020
- Three-Day National Level Webinar on “Modalities of Raising Quality of Research” jointly organized by the Departments of Library and Information Science, Computer Science, Visual Communication and Social Work, Srimad Andavan Arts and Science College(Autonomous), Trichy, 27th to 29th July 2020.
- Webinar on Enhancing Financial, Emotional and Social Wellbeing” organized by IQAC & Co-Curricular Clubs, Srimad Andavan Arts and Science College (Autonomous), Tiruchirappalli, TamilNadu, India, July 24th -26th, 2020.
- Two weeks online Faculty Development Programme on Machine Learning for Computer Vision organised by under the “Scheme of financial assistance for setting up of Electronics and ICT Academies” of the Ministry of Electronics and Information Technology (MeitY), Government of India, June 29th - July 8th 2020.
- National Level Faculty Development Program on Making of E-Content, Organised by Department of Computer Science, St. Joseph’s College, Trichy, Tamilnadu, July 9-11, 2020
- Webinar on Mathematical Insights into Neural Networks with Case Studies, organised by Sastra Deemed University, Thanjavur, Tamil Nadu, India, July 02nd 2020.
- Webinar on Impact Analysis & Opportunity in Indian Stock Market Organised by Department of MCA, The Oxford College of Engineering, Bangalore, July 4, 2020.
- Webinar on Predatory Journals – A Growing Threat for Academicians, Organised by PG Department of Computer Science (Shift- II), Bishop Heber College (Autonomous), Trichy, Tamil Nadu, India, July 4, 2020.

- Webinar on How to Build Cyber Security Career in India – Scope, Salary, Skill Required, Organised by ISTE, Department of MCA, The Oxford College of Engineering, Bangalore, June 27, 2020.
- Ten Days Webinar Marathon 2020, Organised by Department of Computer Applications, Government Arts College (Autonomous), Salem, Tamil Nadu, India, June 20,2020
- Two days online International Conference on “Recent Trends in Computer Science and Information Technology”, Organised by St. Martin’s Engineering College, Secunderabad, India, June 17-18,2020.
- Webinar on Machine Learning: Linear Regression, Organised by Department of Computer Applications and Computer Science, Loyola College, Vettavalam, Tamil Nadu, India, June 17, 2020
- International Conference (Online) on Data Science, Organised by Department of Computer Applications and Computer Science, Loyola College, Vettavalam, Tamil Nadu, India, June 15 - 18, 2020.
- Webinar on Essential Mathematics for Engineering Projects and Research-An Insight into Methodologies, organised by SASTRA Deemed University, Thanjavur, Tamil Nadu, India, June 12, 2020.
- International Webinar on Data Analytics & Applications, Organised by PG Department of Computer Science (Shift- II), Bishop Heber College (Autonomous), Trichy, Tamil Nadu, India, June 12,2020
- Webinar on The World of Circuit System Organised by Department of Electronics and Communication Engineering, JSS Academy of Technical Education, Bangalore, June 4,2020
- Faculty Development Programme on Roles & Responsibilities of faculty members in Entrepreneurship organised by UIIC, REVA University Bangalore, July 28th 2018.
- National Workshop on BigData Analytics, organized by VIT University, Vellore, Tamil Nadu, India, April 19-20, 2013.
- Workshop on Smart Devices Programming using Android, organized by St. Joseph’s College (Autonomous), Tiruchirappalli, Tamil Nadu, India, December 8th, 2012.
- Faculty Development Programme on Do You Want To Publish Books?, organized by M. Kumarasamy College of Engineering, Karur, Tamil Nadu, India, October 6th, 2012.
- Orientation Programme on “Pursuing Socially Relevant Research Possibilities and Concerns”, for Research Scholars, organized by Research Advisory Committee, St. Joseph’s College (Autonomous), Tiruchirappalli, Tamil Nadu, India, January 28th, 2012.
- Workshop on Research Issues in Data Mining & Usage of Related Tools, organized by VIT University, Vellore, Tamil Nadu, India, April 22-23, 2011
- Second Annual Seminar on Research Areas in Computer Science, Bharathidasan University Technology Park & Computer Society of India Tamil Nadu, India, March 31st , 2011.
- National Workshop on Research Tools in Computer Science (NWR TCS-2011) organized by P.G. Department of Information Technology, Bishop Heber College, Tiruchirappalli, Tamil Nadu, India, January 28-29, 2011.
- Orientation Programme for Research Scholars, organized by Research Advisory Committee, St. Joseph’s College (Autonomous), Tiruchirappalli, Tamil Nadu, India, January 18th, 2011.
- National Workshop on Cloud Computing and Databases organized by Database Management Systems Division, VIT University, Vellore, Tamil Nadu, India, October 22-23, 2010.
- National Seminar on Heuristic Optimization Techniques for Engineering and Research Applications, Bannari Amman Institute of Technology, Sathyamangalam, Tamil Nadu, India, September 24-25, 2010.
- Seminar on Advanced Leadership organized by Haggai Institute (India) at Bishop Heber College, Tiruchirappalli, Tamil Nadu, India, September 3-5, 2010.

- National workshop on Data Mining, Data Warehousing and Biological Databases, Dr M.G.R Educational and Research Institute University, Chennai, Tamil Nadu, India, August 27-28, 2010.
- Faculty Development Programme on Research Directions in Data Mining organized by Department of MCA, Thiagarajar School of Management, Madurai, Tamil Nadu, India, March 25-26, 2010.
- National Conference on Computer Science and Engineering(NCCSE-2010) organized by Department of Computer Science, Jayaraj Annapackiam College for Women (Autonomous),Periyakulam, Tamil Nadu, India, February 24-25, 2010.
- Workshop on E- Learning Trends & Technologies organized by Department of Computer Science & Engineering, National Institute of Technology, Tiruchirappalli, Tamil Nadu, India, January 22-23, 2010.
- National Conference on Data Mining and its Applications, organized by Department of Computer Science and IT&M, Arul Anandar College (Autonomous), Madurai, Tamil Nadu, India, December 9th -10th , 2009.
- International Conference on Semantic E-Business and Enterprise Computing (SEEC), organized by Bishop Heber College (Autonomous), Tiruchirappalli, and Kingston University, London, UK during November 4-6, 2009.
- Workshop on R&D Initiatives and Patent Rights (IPR) organized by Department of Computer Application, Jayaram College of Engineering & Technology, Thuraiyur Tamil Nadu, India, September 30th. 2009.
- Workshop on Data Mining and Data Warehousing organized by Department of Computer Science and Engineering, Rover Engineering College, Perambalur, Tamil Nadu, India, 31st July & 1st August, 2009.
- Workshop on MATLAB & SPSS organized by Department of Computer Science, St. Joseph's College (Autonomous), Tiruchirappalli, Tamil Nadu, India, March 13-14, 2009.
- Seminar on Web Services and ERP organized by Department of Computer Science, St.Joseph's College (Autonomous), Tiruchirappalli, Tamil Nadu, India, September 2, 2008.

Acted as a Resource Person

1. Faculty Development Program on Technology Trends and Advanced Machine Learning organized by Department of Computer Science (UG), Kristu Jayanti College (Autonomous), Bengaluru on 23rd to 29th March 2021.
2. Value Added Course on Data Analytics organized by Department of Computer Science, St.Joseph's College (Autonomous), Trichy, 06th March 2021
3. Webinar on Web Technologies organized by Department of Computer Science, Thanthai Hans Roever College (Autonomous), Perambalur, 28th October 2020.
4. State Level Seminar on Cloud Computing and its Advanced Technology" organized by Meenaakshi Ramasamy Arts and Science College, Ariyalur, 08th January 2018
5. Seminar on Practical Data Mining Applications organized by Chidambaram Pillai College for Women, Trichy, 13th November 2017.
6. Workshop on WEKA organized by Roever college of Engineering and Technology 2012
7. Workshop on WEKA (A Data Mining Tool) organized by St. Xavier's College, Palayamkottai, 9th and 10th March 2012.
8. Workshop on Knowledge Discovery – WEKA organized by Narasu's Sarathy Institute of Technology, Salem, 17th September 2011.
9. Faculty Development Programme on Innovations in Data Mining conducted by Jayram Engineering College, Trichy on 7th June 2010.
10. Lecture on Knowledge Discovery – WEKA conducted by Jayram Engineering College, Trichy on 6th January 2010

Personal Details

Name : V. Arul Kumar
Father's Name : Mr. M.S. Venugopal Reddi
Date of Birth : 09 - 01 – 1983
Age : 37 Years
Gender : Male
Nationality : Indian
Marital Status : Married
Language Competence : Tamil, English
Hobbies : Pencil Drawing, Hearing Music
Address for Communication : Department of Data Science
St. Joseph's College (Autonomous)
Tiruchirappalli, TamilNadu, India
Pincode -620 002.

Permanent Address : 4/189 M, Sri Kailash Santhanam Garden,
20th Cross, Shanmuga Nagar,
Nachikurichi, Sollanganallur village,
Tiruchirappalli, Tamil Nadu, India
Pincode -620 102.

Details of Papers

International Journals

1. Sangayya Gulledmath, Arul Kumar V, "Dyanamics of Experimental Observation and Estimation of Soil Errosion using Agricultural Data Sciences", Test Engineering and Management, Volume 83, May-June 2020, pp.3737-3745, ISSN: 0193-4120 (**Scopus**)
2. Dharamvir, Arul Kumar V, "ASIC Implementation of Random Perturbation Algorithm for Neural Network Application", Test Engineering and Management, Volume 83, May-June 2020, pp.3474-3476, ISSN: 0193-4120 (**Scopus**)
3. Mahabaleshwar Kabbur, V. Arul Kumar, MAR_Sybil: Cooperative RSU Based Detection and Prevention of Sybil Attacks in Routing Process of VANET, Journal of Physics, doi:10.1088/1742-6596/1427/1/012009, January 2020, pp.1-12, ISSN: 1742-6596 (**Scopus**)
4. Mahabaleshwar Kabbur, V. Arul Kumar, MAR_Worm: Secure and Efficient Wormhole Detection Scheme through Trusted Neighbour Nodes in VANETs", International Journal of Innovative Technology and Exploring Engineering (IJITEE), Volume-9 Issue-2S, December 2019, pp 180-183, ISSN: 2278-3075 (**Scopus**).
5. Amutha A, V ArulKumar, Francis Densil Raj V, Software Defect Prediction Mechanisms for Quality Enhancement, International Journal of Recent Technology and Engineering (IJRTE), Volume-8 Issue-3, September 2019, pp-5921-5925, ISSN: 2277-3878 (**Scopus**)
6. Francis Densil Raj V, Arul Kumar V, A. Dalvin Vinoth Kumar, Automatic Railway Level Crossing System with Embedded Precision Solar Panel using IoT, International Journal of Recent Technology and Engineering (IJRTE), Volume-8 Issue-2, July 2019, pp-6211-6216, ISSN: 2277-3878 (**Scopus**)

7. Mahabaleshwar Kabbur, V. Arul Kumar, Detection and Prevention of DoS Attacks in VANET with RSU's Cooperative Message Temporal Signature, International Journal of Recent Technology and Engineering (IJRTE), Volume-8 Issue-2, July 2019, pp.6371-6377, ISSN: 2277-3878 **(Scopus)**
8. J. Charles Selvaraj, V. Arul Kumar, V. Francis Densil Raj, A. Dalvin Vinoth Kumar, ECS: An Enhanced Cloud Security Algorithm, International Journal of Recent Technology and Engineering (IJRTE), Volume-8 Issue-2, July 2019, pp.6408-6412, ISSN: 2277-3878 **(Scopus)**
9. Sangayya Gulledmath and V Arulkumar, "Dealing of Data Pre-processing with Computational Intelligence for Sampling and Analysis of Soil-Case Bidar District-Karnataka.", Journal of Physics, doi:10.1088/1742-6596/1142/1/012004, 2018, pp. 1-7**(Scopus)**
10. V. Arul Kumar, *Enhanced Feature Selection Algorithms to Overcome High Dimensionality Problem*, International Journal of Research in Advent Technology, Volume 6, Number 6, June 2018, E-ISSN: 2321-9637, pp.977-981. **(UGC)**
11. Dr. V. Arul Kumar & K. Vijayalakshmi, "To Implement the framework for Segmentation of Land and Sea Using Mining Techniques", International Journal of Recent Research and Applied Studies, Volume 4, Issue 9(12), 2017, ISSN:2349-4891, pp-58-64.
12. Dr. J. Charles Selvaraj and Dr. V. Arul Kumar, *A Review on Clustering Algorithms*, International Journal of Recent Research and Applied Studies, Volume 3, August 2016, ISSN:2349-4891, pp. 99-103
13. V. Arul Kumar, *ArK Feature Selection Algorithm to resolve Small Sample Size Problem*, International Journal of Advanced Research in Computer Science and Software Engineering, Volume 4, Issue 11, November 2014, ISSN:2277 128X, pp.931-934.
14. V. Arul Kumar and N. Elavarasan, *A Survey on Dimensionality Reduction Technique*, International Journal of Emerging Trends & Technology in Computer Science, Volume 3, Issue 6, 2014, ISSN 2278-6856, pp. 36-41.
15. V. Arul Kumar and L. Arockiam, *A New Methodology to Overcome High Dimensionality Problem in Data Mining*, International Journal of Artificial Intelligent Systems and Machine Learning, Volume 5, Number 2, 2013, Print: ISSN 0974 – 9667 & Online: ISSN 0974 – 9543, pp.65-69.
16. L. Arockiam and V. Arul Kumar, *Enhanced Feature Selection Algorithm using Modified Fisher Criterion and Principal Feature Analysis*, International Journal of Advanced Research in Computer Science, Volume 3, Number. 4, 2012, ISSN: 0976-5697, pp. 310-314.
17. V. Arul Kumar and L. Arockiam, *MFSPFA: An Enhanced Filter Based Feature Selection Algorithm*, International Journal of Computer Applications, Volume 51, Number 12, 2012, ISSN: 0975 – 8887, pp. 27-31.
18. V. Arul Kumar and L. Arockiam, *A Study on Feature Selection using Machine Learning Techniques*, International Journal of Data Mining and Knowledge Engineering, Volume 4, Number 5, 2012, Print: ISSN 0974 – 9683 & Online: ISSN 0974 – 9578, pp. 210-213
19. V. Arul Kumar and L. Arockiam, *A Survey on Filter Approach for Feature Selection in Data Mining*, International Journal of Artificial Intelligent Systems and Machine Learning, Volume 4, Number 10, 2012, Print: ISSN 0974 – 9667 & Online: ISSN 0974 – 9543, pp. 583-587.
20. L. Arockim, V. Arul Kumar, S. Charles, *Deriving Association Between Intelligent Quotient and Debugging Skills*, International Journal of Artificial Intelligence System and Machine learning, Volume 4, Number 4, 2012, ISSN: 0974-9543, pp.207-211.
21. L. Arockiam, S. Charles, V. Arulkumar, *Deriving Association Between Urban and Rural Students Programming Skills*, International Journal of Computer Science and Engineering, Volume.2, Number.3, 2010, ISSN 0975-3397, pp. 686-689.
22. S.S.Baskar, L. Arockiam, V. Arulkumar, L. Jeyasimman, *Brief Survey of Application of Data Mining Techniques to Agriculture*, Agricultural Journal, Volume 5, Number.2, 2010, ISSN: 1816-9155, pp. 116-118.
23. L. Arockiam, S. Charles, C. Lalitha, A. Sujanitha, V. Arul Kumar, *Recommender System for Prevention of Juvenile Plantar Dermatitis Disease*, International Journal of Data Mining and

International Conferences

1. S. Charles, L. Arockiam, V. Arul Kumar, *A Recommender System for Rural and Urban Learners*, First International Conference on Computer Science, Engineering and Information Technology, Tamilnadu, 2011, published by **Springer**, ISBN 978-3-642-24042-3, pp.619-627.
2. S. Charles, L. Arockiam, V. Arul Kumar, *Deriving Association Between Learning Behavior and Programming Skills*, Proceedings of International Conference on Advances in Communication, Network and Computing, **Springer**, India, 2011, ISBN 978-3-642-19541-9, pp. 96-102.
3. L. Arockiam, S. Charles, V. Arul Kumar, *Deriving Association Between Personality Traits and Programming Skills*, Proceedings of International Conference on Advances in Communication, Network and Computing, India 2010.
4. R. Devika Rubi, L. Arockiam, S. Rajasekaran, V. Arul Kumar, *A Study on Recent Algorithms for Multiple Longest Common Subsequence (Mlcs) Problem in Biological Sequences*, Proceedings of the International Conference on Recent Trends in Information Processing (ICIPC 2012), Tamilnadu, 2012, ISBN 978-81-8371-412-9, pp. 391-394.
5. S.Charles, L. Arockiam, V. Arul Kumar, *Determination of Similarity Between Urban and Rural Students Learning Behavior*, Proceedings of International Conference on Semantic E-business and Enterprise computing (SEEC 2009), Tamilnadu, ISBN 978–81-907337-0-0.

National Conferences

1. Sangayya Gulledmath and V Arulkumar, "Observational Analysis for Quality of Soil Organic Matter Using Agricultural Data Science.", DST Sponsored National Conference on Recent Advancements in Computer Science, July 2019, pp. 209-225 (Best Paper Award)
2. S.S. Baskar, L. Arockiam, V. Arul Kumar, L. Jeyasimman, *Concise Survey of Data Mining Techniques on Agriculture*, Proceeding of National Conference on Computer Science and Engineering, Tamilnadu, 2010.
3. S.Charles L. Arockiam, K.J. Paulraj, Y.Sunil raj, V. Arul Kumar, *Deriving Association Between Performance and Learning Behavior of Students*, Proceedings of National Conference on Advances in Imaging Processing, Mining and Computing Technology, India, 2010, ISBN: 978-93-80408-29-3, pp. 529-537.

Declaration

I hereby declare that the particulars given above are true to the best of my knowledge and belief.

(V. ARUL KUMAR)