

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

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| | College of Engg. & Tech., Tirupattur | | |
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8. Academic Qualifications (From Highest Degree to High School):

| Examination | Board / University | Year | Division/ Grade | Subjects |
|-------------|----------------------|-----------|-----------------|--------------------------------|
| Ph.D. | Anna University | 2010-2016 | - | Computer Science & Engineering |
| M.E. | Anna University | 2004-2006 | First Class | Computer Science & Engineering |
| B.E. | University of Madras | 1998-2002 | First Class | Computer Science & Engineering |
| H.S.C | State Board | 1998 | First Class | Mathematics & Science |
| S.S.L.C | State Board | 1996 | First Class | COMMON |

9. Academic/Administrative Responsibilities within the University

| Position | Faculty/Department/Centre/Institution | From | To |
|-----------------------------------|---|------|-----------|
| Committee Member | National Super Computing Mission, NIT Trichy | 2020 | Till Date |
| Faculty Coordinator | Teaching Club (IGNITT), NIT Trichy | 2021 | Till Date |
| Committee Member, Ph.D. Admission | Dept. CA, NIT Trichy | 2020 | Till Date |
| Committee Member, | 16th Convocation, NIT Trichy | 2020 | 2022 |
| Committee Member, | Counselling Committee, Dept. CA, NIT Trichy | 2020 | 2022 |
| Virtual Lab Coordinator | Dept. of CA, NIT Trichy | 2020 | Till Date |
| Committee Member | Curriculum & Syllabus Revision Committee Member for M. Tech-DA, MCA, and M.Sc., | 2021 | 2022 |
| Committee Member | M. Tech-DA Project Committee, Dept. CA, NIT Trichy | 2021 | 2022 |
| Time-Table Coordinator | SCOPE, VIT, Vellore-14 | 2019 | 2020 |
| Additional Chief-Superintendent | Vellore Institute of Technology, Vellore-14 | 2017 | 2018 |

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| (ACS) | | | |
| Resident Counsellor (Deputy Warden) | College of Engineering Guindy Campus, CEG Hostels, Anna University Campus, Chennai-25 | 2010 | 2014 |
| Anti-Ragging Committee Member | College of Engineering Guindy Campus, Anna University, Chennai-25 | 2013 | 2014 |
| Continuous Assessment Test (CAT) In-Charge | Vellore Institute of Technology, Vellore-14 | 2016 | 2017 |
| Campus Discipline Committee Member | Vellore Institute of Technology, Vellore-14 | 2015 | 2020 |

10. Academic/Administrative Responsibilities outside the University

| Position | Institution | From | To |
|---------------------------|--|------|-----------|
| Doctoral Committee Member | SRM University, Chennai | 2020 | Till Date |
| Doctoral Committee Member | Vellore Institute of Technology, AP Campus | 2021 | Till Date |
| Doctoral Committee Member | Anna University, Chennai | 2021 | Till Date |

11. Awards, Associateships etc.

| Year of Award | Name of the Award | Awarding Organization |
|---------------|-------------------|-----------------------|
| | | |
| | | |
| | | |

12. Fellowships

| Year of Award | Name of the Fellowship | Awarding Organization | From (Month/Year) | To (Month/Year) |
|---------------|------------------------|-----------------------|-------------------|-----------------|
| 2013-15 | UGC-BSR-FELLOW | UGC | 04/2013 | 04/2015 |
| | | | | |
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13. Details of Academic Work

(i) Curriculum Development:

Design of New Curricula and Courses for M. Tech-AI & Data Science (On-Line Mode)

(ii) Courses taught at Postgraduate and Undergraduate levels

1. Artificial Intelligence & AI Lab

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2. Artificial Intelligence in Industrial Automation
3. Operating Systems and OS Lab
4. High Performance computing
5. Computer Organization and Architecture
6. Introduction to Computer Programming & Lab

(iii) Projects guided at Postgraduate level

13 PG projects are guided.

(iv) Other contribution(s)

14. Details of Major R&D Projects

| Title of Project | Funding Agency | Duration | | Status |
|------------------|----------------|----------|----|--------------------|
| | | From | To | Ongoing/ Completed |
| | | | | |
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15. Number of PhDs ~~guided~~/ongoing

| Name of the PhD Scholar | Title of PhD Thesis | Role (Supervisor/ Co-Supervisor) | Year of Award |
|-------------------------|---|----------------------------------|---------------|
| Mrs. Mamata Das | An Analytical Study of COVID-19 Dataset Using Graph-Based Clustering Algorithms | Supervisor | - |

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

| Date (s) | Title of Activity | Level of Event (International/ National/ Local) | Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other) | Event Organized by | Venue |
|---------------------------|--------------------------------------|---|--|---|---------|
| 02-06 November 2020 | End-to-End Process in Data Analytics | National | Participant | Department of Information Technology, SSN College of Engineering, Chennai-110 | On-Line |
| 07-11 September | Disruptive Technologies | International | Participant | Department of Computer | On-Line |

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|---------------------|--|----------|-------------|--|--------------|
| 2020 | in Smart Computing for Today and Tomorrow | | | Science, Central University of Tamil Nadu, Thiruvarur | |
| 28-29 August 2020 | Webinar on IoT Security (WISE) | National | Participant | Centre for Development of Advanced Computing (C-DAC), Hyderabad and Society for Electronic Transactions and Security (SETS), Chennai | On-Line |
| 10-14 August 2020 | E-Content Development | National | Participant | NITTTR, Chennai- 113 | On-Line |
| 10-14 June 2019 | Faculty Development Programme in JAVA | National | Participant | Academic Staff College, Vellore Institute of Technology, Vellore-14 | VIT, Vellore |
| 16 March 2019 | Academic Aspects of Making a Learner Centric MOOC | National | Participant | Academic Staff College, Vellore Institute of Technology, Vellore-14 | VIT, Vellore |
| 24-29 December 2018 | Artificial Intelligence in Medical and Healthcare Applications-AIMA'2018 | National | Participant | Department of Electrical Engineering, Kongu Engineering College, Erode-60 | Erode |
| 15-16 November 2018 | DevOps | National | Participant | Department of Software and Systems Engineering, SITE, Vellore Institute of Technology, Vellore-14 | VIT, Vellore |

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17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

| Title of Activity | Level of Event (International/ National/ Local) | Date (s) | Role | Venue |
|--|---|---------------------------|-------------|---------|
| Workshop on Statistical Modelling & Computational Intelligence-Karyashala Scheme | National | 06-12 December 2021 | Coordinator | On-Line |

18. Invited Talks delivered

| Topic | Date | Inviting Organization |
|---|------------|---|
| Data Science and Machine Learning | 07-06-2022 | SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, RAMAPURAM CAMPUS, CHENNAI - 89 |
| Introduction to Parallel Computing | 19-05-2022 | Department of Computer Science and engineering, B.S.Abdur Rahman Crescent Institute of Science and Technology Chennai 600 048. Tamilnadu. INDIA |
| Road Map to Integrated Internet of things (IoT) | 18-05-2022 | Department of Electronics and Communication Engineering, S.A. Engineering College, Chennai-77 |
| Introduction to Parallel Computing | 23-03-2022 | Dept. of CA, NIT Trichy-15 |
| Machine Learning / Deep Learning for Cyber Security | 18-01-2022 | Department of CSE, College of Engineering Guindy Campus, Anna University, Chennai – 600 025. |
| Mobile Security | 22-01-2022 | Department of CSE, College of Engineering Guindy Campus, Anna University, Chennai – 600 025. |
| FUNDAMENTALS OF IoT | 17-12-2021 | AICTE - ISTE ONLINE INDUCTION FDP PROGRAM ON IoT AND ITS APPLICATIONS, THE KAVERY ENGINEERING COLLEGE |
| Internet of Things (IoT) in Smart Cities | 22-09-2021 | AICTE Training and Learning (ATAL) Academy Online |

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| | | Elementary FDP in Kongunadu College of Engineering and Technology. |
| Artificial Intelligence | 22-12-2021 | Department of Computer Science and Engineering, R M K College of Engineering and Technology, Chennai-601206 |
| Research Opportunities in Artificial Intelligence & Machine Learning | 20-12-2021 | ISTE Sponsored One Week Faculty Development Programme, Department of Electronics and Communication Engineering, SaiRam Institute of Technology, Chennai-44 |
| Natural Language Processing | 28-08-2021 | Department of CSE & IT, M.A.M. College of Engineering & Technology, Trichy |
| IOT and its applications with Machine Learning | 09-08-2021 | Two Weeks ISTE approved STTP in the Department of Computer Science and Engineering, SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, Ramapuram Campus, Chennai-89. |
| Data Science Tools and Techniques in Engineering | 08-02-2021 | Department of Information technology, PSNA College of Engg. & Tech. |

19. Membership of Learned Societies

| Type of Membership (Ordinary Member/ Honorary Member / Life Member) | Organization | Membership No. with date |
|---|--|--------------------------|
| Life member | Computer Society of India (CSI) | 00174805/26-06-2015 |
| Life member | International Association of Engineers (IAENG) | 186648/06-03-2017 |
| Member | IEEE Computer Society | 98190745/ |

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20. Academic Foreign Visits

| Country | Duration of Visit | Programme |
|---------|-------------------|-----------|
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21. Publications

(A) Refereed Research Journals:

| Author(s) | Title of Paper | Journal | Volume (No.) | Page numbers | Year | doi | Impact Factor of the Journal (Optional) |
|---|--|--|--------------|--------------|------|-------------------------------------|---|
| K Selvakumar , PJA Alphonse, L SaiRamesh | Yield Prediction Based on Soil Content Analysis through Intelligent IoT System for Precision Agriculture | Cloud IoT Systems for Smart Agricultural Engineering | 1 | 133-146 | 2022 | doi.org /10.1201/ 9781003185413 | |
| L SaiRamesh, S Sabena, K Selvakumar | Energy Efficient Service Selection from IoT Based on QoS Using HMM with KNN and XGBoost | Wireless Personal Communications | 124 | 3591–3602 | 2022 | doi.org/10.1007 /s11277-022-09527-y | 1.67 |
| R Janarthanan, Eshrag A Refaee, K Selvakumar , Mohammad Alamgir Hossain, | Biomedical image retrieval using adaptive | Mathematical Biosciences and Engineering | 19 | 8132-8151 | 2022 | 10.3934 /mbe.2022380 | 2.19 |

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|--|--|---|----|---------|------|-----------------------------------|-------|
| Rajkumar Soundrapandiyan, Marimuthu Karuppiyah | neuro-fuzzy optimized classifier system | | | | | | |
| M Ambika, N Mangayarkarasi, Raghuraman Gopalsamy, L Sai Ramesh, Kamalanathan Selvakumar | Secure and Dynamic Multi-Keyword Ranked Search | International Journal of Operations Research and Information Systems (IJORIS) | 12 | 1-10 | 2021 | 10.4018/IJORI S.20210701.oa3 | |
| K Selvakumar , L Sai Ramesh, A Ayyasamy, M Archana | Intelligent energy-aware multiple quality of service restraints based secured optimal routing protocol with dynamic mobility estimation for wireless sensor networks | Journal of Intelligent & Fuzzy Systems | 41 | 1-17 | 2021 | 10.3233/JIFS-190050 | 1.73 |
| L Sai Ramesh, S Shyam Sundar, K Selvakumar , S Sabena | Tracking of Wearable IoT Devices Through WAP Using Intelligent Rule-Based Location Aware Approach | Journal of Information & Knowledge Management | 20 | 1-9 | 2021 | doi.org/10.1142/S0219649221400050 | 0.465 |
| V Sathiyavathi, | Smart | | 1 | 341-349 | 2021 | 10.3233/APC21 | |

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|--|---|-------------------|----|-----------|------|------------------------------------|-------|
| M Jessey, K Selvakumar , L SaiRamesh | Surveillance System for Abnormal Activity Detection Using CNN | | | | | 0157 | |
| B Dhanalakshmi, L SaiRamesh, K Selvakumar | Intelligent energy-aware and secured QoS routing protocol with dynamic mobility estimation for wireless sensor networks | Wireless Networks | 27 | 1503–1514 | 2021 | doi.org/10.1007/s11276-020-02532-8 | 2.602 |

(B) Conferences/Workshops/Symposia Proceedings

| Author(s) | Title of Abstract/ Paper | Title of the Proceedings | Page numbers | Conference Theme | Venue | Year | doi |
|---|---|--|--------------|---|---|------|------------------------------|
| Mamata Das, PJA Alphonse, K Selvakumar | An Analytical Study of COVID-19 Dataset Using Graph-Based Clustering Algorithms | Smart Intelligent Computing and Applications | 1-15 | International Conference on Smart Computing and Informatics (SCI 2021) | Hyderabad - 500 031Telangana , India | 2022 | 10.1007/978-981-16-9669-5_1 |
| K Selvakumar , L Sairamesh | User Query-Based Automatic Text Summarization of Web Documents | Lecture Notes in Electrical Engineering | 593–599 | International Conference on Communication , Computing and Electronics Systems | PPG Institute of Technology, Coimbatore | 2021 | 10.1007/978-981-33-4909-4_45 |

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|---|--|-----------------|---------|--|---|------|-----------------------------------|
| | Using Ontology | | | | | | |
| Mamata Das, PJA Alphonse, Selvakumar Kamalanathan | Markov Clustering Algorithms and Their Application in Analysis of PPI Network of Malaria Genes | IDAACS | 855-860 | 11th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications | Research Institute for Intelligent Computer Systems West Ukrainian National University | 2021 | 10.1109/IDAACS53288.2021.9661009 |
| Mamata Das, Selvakumar Kamalanathan , PJA Alphonse | A Comparative Study on TF-IDF Feature Weighting Method and Its Analysis Using Unstructured Dataset | COLINS | 98-107 | 5th International Conference on Computational Linguistics and Intelligent Systems | Kharkiv, Ukraine | 2021 | |
| K Selvakumar , L Sai Ramesh | Fuzzy Expert System-Based Node Trust Estimation in Wireless Sensor Networks | Springer Nature | 435–444 | Inventive Computation and Information Technologies | RVS Technical Campus, Coimbatore, India. | 2021 | doi.org/10.1007/978-981-33-4305-4 |
| R Reshma, V Sathiyavathi, T Sindhu, K Selvakumar , L SaiRamesh | IoT based classification techniques for soil content analysis and crop yield prediction | I-SMAC | 156-160 | Fourth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) | SCAD Institute of Technology, Palladam, Tamilnadu | 2020 | 10.1109/I-SMAC49090.2020 |

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(C) Books & Monographs

| Author(s) | Title of Book/Monograph | Name of Publishers | Year of Publication | ISSN/ISBN Number | doi |
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