National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty

Curriculum Vitae

Brief Profile:

I am a faculty member with the Dept. of Computer Science and Engineering at the National Institute of Technology, Tiruchirappalli, India to which I am affiliated since September 2022. Before that, I had a short stint as an Assistant Professor with the CSE department at IIIT Kottayam. I received PhD in Computer Science in 2018 from Indian Institute of Information Technology, Design and Manufacturing Kancheepuram and was fortunate to be advised by Dr. Sivaselvan. I held a post-doctoral fellowship with Computer Science department at the Indian Institute of Technology, Kanpur advised by Prof. Arnab Bhattacharya. My current



research interests include data mining, computational science for social good, machine learning, natural language processing and human-computer interaction. I am highly interested to use computing as a tool to develop solutions for challenges faced by people in day-to-day life. I am passionate about teaching where I keep Prof. H. C. Verma as my role model. Motivated students who would like to work with me can drop an email at <u>oswald@nitt.edu</u>.

- 1. Name: C. Oswald
- 2. Designation: Assistant Professor
- 3. Office Address: Room. No. 301, Department of Computer Science and Engineering, NIT Tiruchy.
- 4. Telephone (Direct) (Optional):

Telephone : Extn (Optional):

Mobile (Optional): 99413-13457

5. Email (Primary): oswald@nitt.edu

Email (Secondary) : oswald.mecse@gmail.com

- 6. Field(s) of Specialization: Data Mining, Computational Science for Social Good, Machine Learning, Natural Language Processing, Human-Computer Interaction.
- 7. Employment Profile

| Job Title | Employer | From | То |
|---|--|-----------|-------------------|
| Assistant Professor, Computer Science and Engineering | IIIT Kottayam | July 2022 | September 2022 |
| Institute Postdoctoral Fellow, Computer Science and Engineering | Indian Institute of Technology Kanpur | Feb 2021 | July 2022 |
| Assistant Professor–Senior, School of Computer Science and Engineering | VIT Chennai | June 2019 | February 2021 |

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty

| Assistant Professor, Department of Computer Science and Engineering | SRM IST, Chennai | June 2018 | May 2019 |
|--|---|-----------|-----------|
| Intern | IBM India Systems & Software Lab, Bangalore | Dec 2012 | July 2013 |
| Programmer Analyst | Cognizant Technology Solutions, Chennai | Dec 2009 | May 2011 |

8. Academic Qualifications (From Highest Degree to High School):

| Examination | Board / University | Year | Division/ Grade | Subjects |
|-----------------------------------|---|------|-----------------------------|---|
| PhD | Institute of Information Technology, Design and Manufacturing Kancheepuram | 2018 | | Computer Science and Engineering |
| M.Tech. | Karunya University | 2013 | l class with Distinction | Software Engineering |
| B.E. | Anna University (Sona College of Technology) | 2009 | l class with Distinction | Computer Science and Engineering |
| HSC – Govt. Improvement Scheme | TN School Education Board | 2005 | l class with distinction | Tamil, English, Maths, Physics, Chemistry and Biology |

9. Academic/Administrative Responsibilities within the University

| Position | Faculty/Department/Centre/Institution | From | То |
|---|---------------------------------------|-------------|----------|
| Anti-Ragging Committee Squad Member | CSE | 17 Nov 2022 | Till now |

10. Academic/Administrative Responsibilities outside the University

| Position | Institution | From | То |
|----------|-------------|------|----|
| | | | |

11. Awards, Associateships etc.

| Year of Award | Name of the Award | Awarding Organization |
|---------------|---------------------------|-----------------------|
| 2021 | Research Excellence Award | VIT Chennai |

12. Fellowships

| Year of Award | Name of the Fellowship | | Awarding | From | То |
|---------------|-------------------------|--------------|--------------|--------------|--------------|
| | | | Organization | (Month/Year) | (Month/Year) |
| 2021 | Institute Fellowship | Postdoctoral | IIT Kanpur | Feb 2021 | July 2022 |

13. Details of Academic Work

- (i) Curriculum Development
- (ii) Courses taught at Postgraduate and Undergraduate levels Artificial Intelligence, Big Data Analytics Problem Solving and Programming (VIT) Data Structures and Algorithms (VIT) Software Quality and Reliability (VIT) Data Mining (SRM University)
- (iii) Projects guided at Postgraduate level
- (iv) Other contribution(s)

Patents:

- 1. Oswald C, M. Mohamad Fasil Ansaary, P. Raghava Ratna, An Integrated System and Method for a Touchless, Paperless Election Voting for Government and Private mode, February 05, 2021. File No. 202141003735.
- 2. Oswald C, Jayapragash R, Trishit Chakraborty, Tanishq Gupta, Aditya Agrawal, SPoTA: Smart Prevention of Train Accidents, August 28, 2020. File No. 202041035035.
- 3. Balasundaram A, Manas Ranjan Prusty, Inayathullah M A, Oswald C, Smart Attendance Marking System (SAMS) using Computer Vision, July 03, 2020. File No. 202041025660.

14. Details of Major R&D Projects

| Title of Project | Title of Project | | ition | Status |
|------------------|------------------|---------|-------|--------------------|
| Title of Project | Funding Agency | From To | | Ongoing/ Completed |
| | | | | |

15. Number of PhDs guided

| Name of the PhD Scholar | Title of PhD Thesis | Role(Supervisor/ Co-Supervisor) | Year of Award |
|-------------------------|---------------------|---------------------------------|------------------|
| | | | |

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 |
|-------------|-----------------------|---|--|--------------------|-------------------------------|
| 2021 | Paper Presentation | International - CODS'22 | Paper Presenter | ACM India | IIIT Bangalore, India |
| 2017 | Paper Presentation | International - INDICON'17 | Paper Presenter | IEEE Chapter | IIT Roorkee |
| 2017 | Paper Presentation | International – MIKE'17 | Paper Presenter | IDRBT | IDRBT, Hyderabad, India |
| 2016 | Paper Presentation | International - INDICON'16 | Paper Presenter | IEEE Chapter | IISc. Bangalore |
| 2016 | Paper Presentation | International - ADCOM'16 | Paper Presenter | IEEE Chapter | Bangalore, India. |

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

| Title of Activity | Level of Event | Date (s) | Role | Venue |
|-------------------|-----------------|----------|------|-------|
| | (International/ | | | |
| | National/Local) | | | |
| | | | | |

18. Invited Talks delivered

| Торіс | Date | Inviting Organization |
|-----------------------------|-------------------|-----------------------|
| An Informal Introduction to | 19-23 April, 2021 | NIT Tiruchirappalli |
| Supervised and Unsupervised | | |
| Learning | | |

19. Membership of Learned Societies

| Type of Membership (Ordinary Member/ Honorary Member / Life Member) | Organization | Membership No. with date |
|---|--------------|--------------------------|
| | | |

20. Academic Foreign Visits

| Country | Duration of Visit | Programme |
|---------|-------------------|-----------|
| | | |

21. Publications

(A) Refereed Research Journals:

| Author(s) | Title of Paper | Journal | Volume (No.) | Page numbers | Year | Impact Factor of the Journal (Optional) |
|---|---|--|-----------------|-----------------|------|---|
| C. Oswald, Sona Elza Simon and Arnab Bhattacharya | SpotSpam: Intention Analysis Driven SMS Spam Detection using BERT Embeddings | ACM Transactions on the Web | 16 | 1-27 | 2022 | |
| C. Oswald & Sivaselvan, B. | Text and Image Compression based on Data Mining Perspective | Data Science Journal | 17 | 1-12 | 2018 | |
| C. Oswald and B. Sivaselvan | Smart Multimedia Compressor – Intelligent Algorithms for Text and Image Compression | The Computer Journal | - | 1-16 | 2021 | |
| C. Oswald, Haritha, E., Akash Raja, A. and Sivaselvan | An efficient and novel data clustering and run length encoding approach to image compression | The Wiley - Concurrency and Computation: Practice and Experience | 33 | 1-16 | 2021 | |
| C. Oswald and B. Sivaselvan | An optimal text compression algorithm based on Frequent Pattern Mining | Springer Journal of Ambient Intelligence and Humanized Computing | 9 | 1-20 | 2017 | |

(B) <u>Conferences/Workshops/Symposia</u> Proceedings

| Author(s) | Title of Abstract/ Paper | Title of the Proceedings | Page numbers | Conference Theme | Venue | Year |
|--|--|--|-----------------|---------------------|---------------------|------|
| C. Oswald, Gadi Jaya Satwika and Arnab Bhattacharya | Prediction of CardioVascular Disease (CVD) using Ensemble Learning Algorithms | 9th ACM India Joint International Conference on Data Science & Management of Data (CODS- COMAD) | 292-293 | | IIIT Bangalore | 2021 |
| Biswas, Subham, Nikhil Chennu, Harsha Valveti, C. Oswald, and B. Sivaselvan | Lossy Image Compression using Frequent Pattern Mining based Huffman Encoding | 14th IEEE India Council International Conference (INDICON) | 1-6 | | IIT Roorkee | 2017 |
| Oswald C., Ajith Kumar I., Avinash J., Sivaselvan B. | A Graph-Based Frequent Sequence Mining Approach to Text Compression | 5th International Conference on Mining Intelligence and Knowledge Exploration (MIKE) | 371–380 | | IDRBD Hyderabad | 2017 |
| Kadimisetty, Avinash, C. Oswald, B. Sivaselvan, and Kadimisetty Alekhya | Lossy image compression— A frequent sequence mining perspective employing efficient clustering | 13th IEEE Annual India Conference (INDICON) | 1-6 | | IISc. Bangalore | 2016 |
| Kadimisetty, Avinash, C. Oswald, and B. Sivaselvan | Frequent Pattern Mining Approach to Image Compression | 22nd Annual International Conference on Advanced Computing and Communication (ADCOM) | 1-6 | | Bangalore, India | 2016 |

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty

| (C) Books & Monographs | | | | | | |
|------------------------|-------------------------|------------|-------------|-----------|--|--|
| Author(s) | Title of Book/Monograph | Name of | Year of | ISSN/ISBN | | |
| | | Publishers | Publication | Number | | |
| | | | | | | |