# Dr. Mohd Hafizul Afifi bin Abdullah
**Doctor of Philosophy in Information Technology**
(Artificial Intelligence, Machine Learning, and Data Science)

**Website:** https://hafizulabdullah.com
**LinkedIn:** https://www.linkedin.com/in/hafizulamz/
**Google Scholar:** https://scholar.google.com/citations?user=mWsihrgAAAAJ
**ResearchGate:** https://www.researchgate.net/profile/Mohd-Hafizul-Afifi-Abdullah
**ORCiD:** https://orcid.org/0000-0002-1427-2571
**E-Mail:** hafizulafifi@utar.edu.my
**Mobile No:** +60 13-253 8516
**Location:** Seri Iskandar, Perak, Malaysia.

## PROFESSIONAL SUMMARY

Dr. Mohd Hafizul Afifi bin Abdullah is an expert in the area of Artificial Intelligence, Machine Learning, and Data Science with a Ph.D. in Information Technology, focusing NLP (Natural Language Processing). He brings concurrent expertise in technical roles, including 9 years of research, 6 years of teaching, and 2 years in industry. He has delivered high-impact research, including 5 Q1/Q2 journal publications, secured funding as a Principal Investigator (PI) for the UTAR Research Fund, and actively serves as a reviewer for high-impact international journals.

## ACADEMIC EXPERIENCE

*Lecturer*                                                                          [Feb 2025 – Current]
Computer Science Department,
Universiti Tunku Abdul Rahman
(UTAR), Perak, Malaysia.

**Teaching Experience:**
UG courses including but not limited to Mobile Application Development, Data Structure and Algorithmic Problem Solving, and Cloud Computing and Services.

**Supervision Experience:**
- Supervise 1 PG master student.
- FYP/IIPSPW supervision for 13 undergraduates.
- Academic Advisor for 40 undergraduate students.

*Research Assistant/Teaching Assistant*                              [Jan 2021 – Jan 2025]
Computer and Information Sciences
Department, Universiti Teknologi
PETRONAS (UTP), Perak, Malaysia.

**Research Experience:**
- Conducted PhD research on event extraction from biomedical text data and NLP domain.
- Performed data quality assessment, collection, transformation, and deep learning algorithms.
- Assisted supervisor in reviewing grant proposal.

**Publication Experience:**
- Published 2 high-impact journal papers (WoS-Q2), and 1 Scopus-indexed conference paper.
- Co-authored a book on Big Data Analytics and draft a book on Business Intelligence with supervisor.

**Teaching Experience:**
- Teaching UG courses such as Business Intelligence, Big Data Analytics, IT/IS Project Management, Enterprise Resource Planning, IT Infrastructure, Information Security Management.
- Prepared teaching materials and conducted lab, tutorial, and workshop sessions.

- Evaluated and provided constructive feedback on tutorial and lab assignments by UG students.

*Postgraduate Research Attachment*
Universitas Muhammadiyah Prof. Dr. HAMKA (UHAMKA), Jakarta, Indonesia.

[Apr 2021 – May 2021]
- Collaborated with research attachment supervisor.
- Prepared a KPI dashboard for UHAMKA.
- Prepared a collaborative research paper between UHAMKA and UTP.

*Trainer/ Assistant Trainer*
Universiti Teknologi PETRONAS (UTP), Perak, Malaysia.

[2020 – 2022]
- Business Analytics using Power BI for Management and Humanities Department, UTP (July 2022).
- KPT-PENJANA 3.0: Master the Basics of Big Data, AI, and ML for Tomorrow's Workforce (May 2022).
- KPT-PENJANA 1.0: Digital Transformation for the Future of Works: Big Data, AI and ML (Jan–Feb 2022).
  - Module 1: Understanding the "Future of Works".
  - Module 2: Introduction to Digital Transformation.
  - Module 3: Big Data Analytics: Insight to Action.
- BDA Using Power BI for Lembaga TH (Mar 2021).
- SKO: Power BI for Finance (Mar 2021).
- BDA for Oil & Gas Using Power BI (Feb 2021).
- Big Data Analytics for Business and Beyond (Oct 2020).
- BDA for PMA Beginner Level (Oct 2020).
- BDA Course with PETRONAS Staff (Mar 2020).

*Graduate Research Assistant*
Faculty of Computer Science and Information Technology, Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia.

[Mar 2017 – Jan 2019]
- Conducted data collection, pre-processing, and implementation of machine learning techniques.
- Assisted as a research assistant to complete a project funded by the Ministry of Higher Education Malaysia.
- Published research results in conferences and journals.
- Assisted in supervising UG Final Year Projects 1 & 2.

## NON-ACADEMIC EXPERIENCE

*Special Services*
Universiti Teknologi PETRONAS (UTP), Perak, Malaysia.

[Dec 2020 – Jan 2021]
- Assisted PI in conducting workshop sessions.
- Prepare research papers and reports.

*Research Officer*
Centre for Research in Data Science (CeRDaS), Universiti Teknologi PETRONAS, Perak, Malaysia.

[May 2020 – Dec 2020]
- Conducted data analysis, pre-processing, and modeling.
- Assisted PI in conducting workshop sessions.
- Contributed to writing book chapters.
- Prepare research papers and reports.

*Special Services*
Universiti Teknologi PETRONAS (UTP), Perak, Malaysia.

[Mar 2020 – May 2020]
- Assisted PI in conducting workshop sessions.
- Prepare research papers and reports.

*System Analyst Programmer*
Gates IT Solution Sdn Bhd, Selangor, Malaysia.

[Aug 2016 – Feb 2017]
- Successfully integrated new features and revamped the system's UI/UX following the client's requirements.
- Collaborated with multiple teams to close 4 IT projects.

## QUALIFICATION

*Ph.D. in Information Technology*
Universiti Teknologi PETRONAS (UTP), Perak, Malaysia.
[2021 – 2025]
- Thesis Title: An Enhanced Embedding Strategy for Biomedical Event Extraction Using Deep Learning and Pretrained Language Model
- Supervisor: Assoc. Prof. Ts. Dr. Norshakirah Ab. Aziz
- Co-Supervisor: Assoc. Prof. Ts. Dr Said Jadid Abdulkadir

*Master of Information Technology (By Research)*
Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia.
[2017 – 2021]
- Thesis Title: Improved Personalised Data Modelling using Parameter Independent Fuzzy Weighted k-Nearest Neighbour for Spatio/Spectro-Temporal Data
- Supervisor: Dr. Muhaini Binti Othman
- Co-Supervisor: Assoc. Prof. Dr. Shahreen Binti Kasim

*Bachelor's in Computer Science (Web Technology) with Honours*
Universiti Tun Hussein Onn Malaysia (UTHM), Johor, Malaysia.
[2013 – 2017]
- Thesis Title: Research on Improving Dominant Yeast Genes for Gene Function Prediction
- Supervisor: Assoc. Prof. Dr. Shahreen Binti Kasim
- First Class Honours with CGPA 3.74

*Foundation in Science*
Universiti Teknologi MARA (UiTM), Puncak Alam Campus, Selangor, Malaysia.
[2012 – 2013]
- Foundation in Science
- CGPA 2.92

*SMK Bandar Tun Hussein Onn 2*
Hulu Langat, Selangor, Malaysia.
[2007 – 2011]
- Science Stream
- Malaysia Education Certificate: 9A

## PROFESSIONAL BODY CERTIFICATIONS
- Graduate Technologist by the Malaysia Board of Technologists (MBOT).
- EC-Council Network Security Administrator (ENSA) by EC-Council.

## COURSES & WORKSHOPS
- DTEX-GAIPE - Generative AI and Prompt Engineering, Trainocate (17-18 Nov 2025) ([Link](#)).
- CCCD In-House Training: Research Supervision Training, Universiti Tunku Abdul Rahman Kampar Campus (31 Sep–1 Oct 2025).
- Developing on Hyperledger Fabric Blockchain - From Fundamentals to Full Deployment: Master Blockchain Solutions with Hyperledger Fabric, at Sakra Academy (M) Sdn Bhd (17-19 Jul 2025).
- AI 900 - Microsoft Azure AI Fundamentals, Trainocate (26 Jun 2025) ([Link](#)).
- In-House Training: FICT Team Building In Todays Reality, (21–22 Jun 2025).
- Bridging Research and Career Progression from Research to Recognition: A Staff Research, Development & Commercialization (RDC) Strategies & Promotion Readiness Workshop, Universiti Tunku Abdul Rahman Kampar Campus (10 Jun 2025).
- The Openmind AI Brainstorming 2025, co-organized by OpenMind Research Institute and UTAR, at AICB Centre of Excellence in Kuala Lumpur (29 May 2025).
- Bridging Skills & Sustainability: Practical AI and Generative AI for the Modern Workforce and Upskilling Professionals, Universiti Tunku Abdul Rahman Kampar Campus (19-22 May 2025).
- bridging the Gap between Academia, Alumni and Industry 2.0 — Series 2: "Generative AI with MNC Enterprise" & "The World after Trump", Universiti Tunku Abdul Rahman via Zoom (28 Feb 2025).
- Training on Active Learning at CETaL, Universiti Teknologi PETRONAS (16–17 May 2024).
- Producing a High-Quality and Well-Researched Thesis at Universiti Teknologi PETRONAS (Dec 2023).
- Professional Short Course: LaTeX Workshop at Universiti Teknologi PETRONAS (25 Jul 2023).

- Outcome-Based Education & Teaching Approach at Universiti Teknologi PETRONAS (25 May 2022).
- Python for Data Analytics Workshop at Universiti Teknologi PETRONAS (9 Oct 2021).
- Moving Research Forward with ScienceDirect (21 Apr 2021).
- Microsoft Azure Data Science Workshop at Universiti Tun Hussein Onn Malaysia.
- Deploying Hyper-Heuristic & Meta-Heuristic Workshop at Universiti Malaysia Pahang (Dec 2018).
- Laravel Framework 1-Day Course at Universiti Tun Hussein Onn Malaysia (30 Sep 2017).
- Graduate Employability Management Scheme for SSO 2015 (System Development Programme), Malaysia Digital Economy Corporation (Oct–Dec 2015).

## CONFERENCES & SYMPOSIUMS
- Presenter at the IAFOR International Conference on Education in Hawaii (IICE2023), 5–8 Jan 2023 (Virtual Conference).
- Presenter at the 2nd International Conference on Emerging Technologies and Intelligent Systems (ICETIS 2022), 2–3 Sep 2022 (Virtual Conference).
- Presenter at the International Conference on Computational Intelligence 2020 (ICCI 2020), 8–9 Oct 2020 (Virtual Conference).
- Presenter at the 4th International Conference on Soft Computing and Data Mining 2020 (SCDM 2020), 22–23 Jan 2020, Melaka, Malaysia.
- Guest Speaker at Ted Talk for Web Technology Department 2017, 23 Apr 2017, UTHM, Malaysia.
- Presenter and Session Chair at the 3rd International Conference on Soft Computing and Data Mining 2018 (SCDM 2018), 6–7 Feb 2018, Johor Baharu, Malaysia.

## SKILLS AND ABILITIES

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|---|---|---|
| Data Science Tools | : | Microsoft Power BI, Python, VS Code, Azure ML, KNIME Analytics. |
| Research Writing | : | Mendeley, EndNote, LaTeX, JabRef. |
| Others | : | Problem-solving, scrum, organizing & analytical thinking skills. |

## AWARDS & CERTIFICATES

### Notable Awards
- King's Scout Award, Scouts Association of Malaysia, 2011.
- Best Tutor Award for Department of Computer & Information Sciences at the 2021 Postgraduate Appreciation Ceremony, Universiti Teknologi PETRONAS, 2021.
- Vice Chancellor's Award, Universiti Tun Hussein Onn Malaysia, 2017.
- The best undergraduate Final Year Project (FYP), Universiti Tun Hussein Onn Malaysia, 2017.

### Other Awards
- Gold award for the invention of Performa.my at the Virtual International Research and Innovation Symposium and Exposition 2020 (RISE2020), Universiti Tun Hussein Onn Malaysia (UTHM).
- Platinum award in the International Invention, Innovation & Design Exposition for Built Environment and Engineering 2020 (IIIDBEEX2020), Universiti Teknologi MARA (UiTM).
- Gold award for the invention of Performa.my exhibited at the Virtual Research and Innovation Exhibition UniMAP (eREKA) 2020, Universiti Malaysia Perlis (UniMAP).
- Silver Award in UTHM Research and Innovation Fest 2017 (Student Category).
- Contestant (Bachelor's Degree Category) at UTHM Three Minute Thesis (3MT) and Three Minute Report (3MR) Competition 2016, 16 Mar 2016, UTHM, Malaysia.

### Research Funding Awards
- Project Type: UTAR Research Fund (UTAR-RF)
  Project Title: Forest Fire Risk Prediction Based on Historical Data Using Enhanced Feedforward Neural Networks for Early Warning and Disaster Management.
  Project Duration: Nov 2025 – Oct 2026
  Role: Principal Investigator (PI)

- Project Type: Fundamental Research Grant Scheme (FRGS 1612)
  Project Title: Improved Spatio-Temporal Data Modelling with Spiking Neural Network Methods for Environmental Event Prediction.
  Project Duration: Aug 2016 – Jan 2019
  Role: Member

- Project Type: Yayasan Universiti Teknologi Petronas (015LC0-277)
  Project Title: Forecasting of Crude Oil Price Using Deep Learning-ANN.
  Project Duration: Feb 2020 – Feb 2023
  Role: Member

## COMPLETED PROJECTS

- Upgrade UI/UX for the MBA Universiti Tun Hussein Onn Malaysia official website.
- Performa.my: Developed a web application for performance satisfaction analysis.
- Developed a web application prototype for Platform Usahawan Johor Interaktif (PUJI).
- Developed the official website for 3A Bundle, Ghali Charity Foundation, Johor i Care Society, and ProofreadMyThesis.
- SSM EzBiz upgrade: Upgraded the system for the Companies Commission of Malaysia (SSM).
- Upgrade the e-Campus system for KUIPSAS.

## INVOLVEMENTS & VOLUNTARY WORKS

- Graduate Technologist - Malaysia Board of Technologists (No. GT21081682).
- IEEE Member: https://ieee-collabratec.ieee.org/app/p/hafizulamz
- Scientific Committee Member, Annual International Congress on Computer Science (ID: #3212)
- An active member of Ubuntu Malaysia Local Community (LoCo) Team.

## EDITORIAL ACTIVITIES

| | |
|---|---|
| International Journals Review | <ul><li>Neural Networks.</li><li>Knowledge-Based Systems.</li><li>Computers, Materials & Continua (CMC).</li><li>Computer Systems Science and Engineering (CSSE).</li><li>Journal of King Saud University-Computer and Information Sciences (JKSU-CIS).</li><li>Journal of Applied Science, Technology and Computing (JASTEC).</li><li>Journal of Soft Computing and Data Mining (JSCDM).</li></ul> |
| International Conferences Review | <ul><li>2nd International Symposium on Informational Technology and Web Engineering (SITWE 2025), Multimedia University, Malaysia.</li><li>Int. Conference on Artificial Intelligence and Data Sciences (AiDAS 2025), Bandung, Indonesia.</li><li>Pacific Asia Conference on Information Systems (PACIS 2025), Kuala Lumpur, Malaysia.</li><li>Annual Int. Congress on Computer Science, Oxford, UK (April 2025).</li><li>6th Int. Conference on Soft Computing and Data Mining (SCDM 2024), Putrajaya, Malaysia.</li><li>The First Int. Conference on Artificial Intelligent and Autonomous System (i-CAIAS 2023), Virtual Conference.</li><li>9th Int. Conference on Computing and Informatics (ICOCI 2023).</li><li>The 5th Int. Conference on Artificial Intelligence in Engineering and Technology (IICAIET2023), Kota Kinabalu, Malaysia.</li><li>8th Int. Conference on Software Engineering & Computer Systems 2023 (IEEE ICSECS 2023).</li><li>5th Int. Conference on Soft Computing and Data Mining (SCDM 2022), Online Conference.</li></ul> |

## PUBLICATIONS

### Summary of Publications

Q1/Q2 Publications: 5

| | Publications: 29 | Citations: 248 | *h*-index: 8 |
|---|---|---|---|
| Google Scholar | | | |
| Scopus | Publications: 20 | Citations: 158 | *h*-index: 7 |
| Clarivate Web of Science | Publications: 10 | Citations: 66 | *h*-index: 4 |

### Journal Publications

- Talpur, N., Hassan, S., **Abdullah, M. H. A.**, Ghali, A. A., Raheem, A. A., Khatoon, S., Aziz, N., & Alaganandham, S. (2025). Boosting classification accuracy using an efficient stochastic optimization technique for feature selection in high-dimensional data. Swarm and Evolutionary Computation, 97, 102025. https://doi.org/10.1016/j.swevo.2025.102025 *(Indexed by ISI/WoS and SCOPUS, Q1 with impact factor 8.2)*
- **Abdullah, M. H. A.**, Aziz, N., Abdulkadir, S. J., Hussain, K., Alhussian, H., & Talpur, N. (2024). A comprehensive review of existing corpora and methods for creating annotated corpora for event extraction tasks. *Journal of Data and Information Science*, 9(4), 1-43. https://doi.org/10.2478/jdis-2024-0029 *(Indexed by ISI/WoS and SCOPUS, Q2 with impact factor 1.5)*
- Talpur, N., Abdulkadir, S. J., Akhir, E. A. P., Hasan, M. H., Alhussian, H., & **Abdullah, M. H. A.** (2023). A novel bitwise arithmetic optimization algorithm for the rule base optimization of deep neuro-fuzzy system. *Journal of King Saud University-Computer and Information Sciences*, 35(2), 821-842. *(Indexed by ISI/WoS and SCOPUS, Q1 with impact factor 5.102)*
- **Abdullah, M. H. A.**, Aziz, N., Abdulkadir, S. J., Alhussian, H. S. A., & Talpur, N. (2023). Systematic Literature Review of Information Extraction from Textual Data: Recent Methods, Applications, Trends, and Challenges. *IEEE Access. (Indexed by ISI/WoS and SCOPUS, Q2 with impact factor 3.476)*
- Talpur, N., Abdulkadir, S. J., Alhussian, H., Hasan, M. H., & **Abdullah, M. H. A** (2022). Optimizing deep neuro-fuzzy classifier with a novel evolutionary arithmetic optimization algorithm. *Journal of Computational Science*, 64, 101867. *(Indexed by ISI/WoS and SCOPUS, Q1 with impact factor 3.817)*
- **Abdullah, M. H. A.**, Othman, M., Kasim, S., & Mohamed, S. A. (2019). Evolving spiking neural networks methods for classification problem: a case study in flood events risk assessment. *Indonesian Journal of Electrical Engineering and Computer Science*, 16(1), 222-229.
- Mohamed, S. A., Othman, M., & **Abdullah, M. H. A.** (2019). A review on data clustering using spiking neural network (SNN) models. *Indonesian Journal of Electrical Engineering and Computer Science*, 15(3), 1392-1400.
- Othman, M., Arif, M., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2017). Human resource management on cloud. *JOIV: International Journal on Informatics Visualization*, 1(4-2), 260-263.
- Othman, M., Shamsudin, S. N., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2017). iBid: A Competitive Bidding Environment for Multiscale Tailor. *JOIV: International Journal on Informatics Visualization*, 1(4-2), 256-259.
- Othman, M., Nordin, M. S., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2017). Cakelicious: Web App for Designing a Customised Wedding Cakes. *JOIV: International Journal on Informatics Visualization*, 1(4-2), 236-239.

### Conference Proceedings

- S. U. Hassan, N. Talpur, M. H. Hasan, **M. H. A. Abdullah**, M. T. A. Chowdhury and A. Khan, "Data Quality Assessment of Distributed Acoustic Sensing for $CO_2$ Leak Detection Using Machine Learning," *2025 6th International Conference on Artificial Intelligence and Data Sciences (AiDAS)*, West Java, Indonesia, 2025, pp. 391-396, doi: 10.1109/AiDAS67696.2025.11213822.
- N. Talpur, N. Aziz, S. Khatoon, **M. H. A. Abdullah**, Shoaib-Ul-Hassan and A. O. Balogun, "The Gamification Effect of Simplifying Complex Mathematics and Statistics Concepts: A Case Study of Online Game-Based Quiz Tools," *2024 International Conference on TVET Excellence & Development (ICTeD)*, Melaka, Malaysia, 2024, pp. 130-135, doi: 10.1109/ICTeD62334.2024.10844627.

- Talpur, N., Alier, N. C. G., Matsom, H., **Abdullah, M. H. A.**, & Khatoon, S. (2024). Predicting Employee Performance using Machine Learning to Enhance Workforce Efficiency. In *2024 8th International Conference on Computing, Communication, Control and Automation (ICCUBEA)* (pp. 1-4). IEEE.
- Aziz, N., Akhir, E. A. P., Abdulkadir, S. J., Alhussian, H. S. A., & **Abdullah, M. H. A.** (2023). Development of Analytical Thinking Using Flipped Classroom Approach for Big Data Analytics Courses. In *The IAFOR International Conference on Education-Hawaii 2023 Official Conference Proceedings 2023* (pp. 679-696). The International Academic Forum (IAFOR).
- **Abdullah, M. H. A.**, Aziz, N., Abdulkadir, S. J., Akhir, E. A. P., & Talpur, N. (2023). Event Detection and Information Extraction Strategies from Text: A Preliminary Study Using GENIA Corpus. In *International Conference on Emerging Technologies and Intelligent Systems* (pp. 118-127). Springer, Cham.
- Aziz, N., **Abdullah, M. H. A.**, Osman, N. A., Musa, M. N., & Akhir, E. A. P. (2023). Predictive Analytics for Oil and Gas Asset Maintenance Using XGBoost Algorithm. In *International Conference on Emerging Technologies and Intelligent Systems* (pp. 108-117). Springer, Cham.
- N. Aziz, **M. H. A. Abdullah** and A. N. Zaidi, "Predictive Analytics for Crude Oil Price Using RNN-LSTM Neural Network," *2020 International Conference on Computational Intelligence (ICCI)*, Bandar Seri Iskandar, Malaysia, 2020, pp. 173-178.
- **Abdullah, M. H. A.**, Othman, M., Kasim, S., Saharuddin, S. S., & Mohamed, S. A. (2020, January). A Spiking Neural Networks Model with Fuzzy – Weighted k – Nearest Neighbour Classifier for Real-World Flood Risk Assessment. In *International Conference on Soft Computing and Data Mining* (pp. 222-230). Springer, Cham.
- Othman, M., Mohamed, S. A., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2018). A Framework to Cluster Temporal Data Using Personalised Modelling Approach. *Advances in Intelligent Systems and Computing*, 181-190.
- Othman, M., Halil, N. M., Yusof, M. M., Mohamed, R., & **Abdullah, M. H. A.** (2018). Empowering self-management through m-health applications. In *MATEC Web of Conferences* (Vol. 150, p. 05018). EDP Sciences.
- Othman, M., Mohamed, S. A., **Abdullah, M. H. A.**, Yusof, M. M., & Mohamed, R. (2018). A Framework to Cluster Temporal Data Using Personalised Modelling Approach. *Advances in Intelligent Systems and Computing*, 181-190.
- Kasim, S., Fudzee, M. F., Salamat, M. A., Ramli, A. A., Mahdin, H., & **Abdullah, M. H. A.** (2016). An improved computational framework using one stage filtration by incorporating knowledge in gene expression clustering. *Proceedings of the International Conference on Artificial Intelligence and Robotics and the International Conference on Automation, Control and Robotics Engineering (ICAIR-CACRE '16)*.

## Book/Book Chapters
- Aziz, N. A., Akhir, E. A. P., Kadir, S. J. A., Alhussian, H., Osman, N. A., & **Abdullah, M. H. A.** (2023). *Data Analytics Using Python*. UTP Press. [ISBN: 978-967-2880-58-5]
- **Abdullah, M. H. A.**, Othman, M., & Kasim, S. Comparative Analysis of Spatio/Spectro-Temporal Data Modelling Techniques. *Data Engineering and Information Security*.
- Yusof, M.M., Rosli, N.F., Othman, M., Mohamed, R., **Abdullah, M.H.A.** (2018). M-DCocoa: M-Agriculture Expert System for Diagnosing Cocoa Plant Diseases. In: Ghazali, R., Deris, M., Nawi, N., Abawajy, J. (eds) *Recent Advances on Soft Computing and Data Mining. SCDM 2018. Advances in Intelligent Systems and Computing*, vol 700. Springer, Cham.


## REFERENCES
References available upon request.