My research interest is in intelligent systems that have to operate in large, nondeterministic, cooperative, survivable, adaptive or partially known domains. My continuous research is inspired by my PhD work back in 1981 on the employment of Brain Activity Structures based techniques for decision making (planning and learning) that enable processes (e.g. agents, mobile objects) to act and collaborate intelligently in their environments to timely achieve the required goals. Currently I am applying my AI research findings to develop smart and robust Internet of Medical Things (IoMT) for VBHCS (Value-Based Healthcare Systems).

Recent Publication on Smart and Value Based Healthcare:

  - [https://www.i-j-global.com/pdf.aspx?id=3d19208%26optid=3d19046%26did%3d15%26t%3dinternationaljournal+of+extreme+automation+and+connectivity%26in+healthcare%3a+inaugural+issue%26isxn%3d9781522555759](https://www.i-j-global.com/pdf.aspx?id=3d19208%26optid=3d19046%26did%3d15%26t%3dinternationaljournal+of+extreme+automation+and+connectivity%26in+healthcare%3a+inaugural+issue%26isxn%3d9781522555759)

- Experimenting with Clojure on Extracting Medication Information from Clinical Narratives
  - [https://dl.acm.org/citation.cfm?doid=3289430.3289463](https://dl.acm.org/citation.cfm?doid=3289430.3289463)

- Identifying & Classifying Potential Post-Market Drug ADEs from Social Media Blogs: A Research Proposal for Detecting ADEs over Users Conversation Networks

- HCX: a distributed OSGi based web interaction system for sharing health records in the cloud
  - [https://www.semanticscholar.org/paper/HCX%3A-A-Distributed-OSGi-Based-Web-Interaction-for-Mohammed-Servos/2c498e9ba4d5786e92e825b4dca79c2f017aecc3](https://www.semanticscholar.org/paper/HCX%3A-A-Distributed-OSGi-Based-Web-Interaction-for-Mohammed-Servos/2c498e9ba4d5786e92e825b4dca79c2f017aecc3)

  - [https://link.springer.com/chapter/10.1007/978-3-642-17569-5_4](https://link.springer.com/chapter/10.1007/978-3-642-17569-5_4)

- Sharing Biomedical Learning Knowledge for Social Ambient Intelligence
  - [http://www.jcomputers.us/index.php?m=content&a=index&c=show&catid=100&id=1568](http://www.jcomputers.us/index.php?m=content&a=index&c=show&catid=100&id=1568)

- Adaptive Swarm Balancing Algorithms for rare-event prediction in imbalanced healthcare data
  - [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5533448/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5533448/)

- Robust high-dimensional bioinformatics data streams mining by ODR iovFDT
  - [https://www.nature.com/articles/srep43167](https://www.nature.com/articles/srep43167)

- Pathogen–Host Analysis Tool (PHAT): an integrative platform to analyze next-generation sequencing data

- On Recognizing Abnormal Human Behaviors by DataStream Mining with Misclassified Recalls
  - [https://dl.acm.org/citation.cfm?id=3054929](https://dl.acm.org/citation.cfm?id=3054929)

- Managing Diabetes Therapy through DataStream Mining

- Solving the under-fitting problem for decision tree algorithms by incremental swarm optimization in rare-event healthcare classification

- Towards Developing an Interoperability Framework for Healthcare Community of Practice
Evaluation of stream mining classifiers for real-time clinical decision support system: a case study of blood glucose prediction in diabetes therapy

A visualization methodology for studying relations of medical data via extended dependency networks
  - http://umir.umac.mo/jspui/handle/10692/298

Recent Publication on Big and Thick Data Analytics:

- Thick Data: A New Qualitative Analytics for Identifying Customer Insights

- THICK DATA ANALYTICS: A HUMAN CENTRIC APPROACH FOR UNDERSTANDING CONSUMER INSIGHTS

- Similarity Majority Under-Sampling Technique for Easing Imbalanced Classification Problem
  - https://link.springer.com/chapter/10.1007/978-981-3-0292-3_1

- A suite of swarm dynamic multi-objective algorithms for rebalancing extremely imbalanced datasets

- Performance Evaluation of Shadow Features as a Data Preprocessing Method in Data Mining for Human Activities Recognitions
  - https://link.springer.com/chapter/10.1007/978-3-8440-76430-6_2

- Revisiting Medical Entity Recognition through the Guidelines of the Aurora Initiative
  - https://www.researchgate.net/publication/308097327_Revisiting_Medical_Entity_Recognition_through_the_Guidelines_of_the_Aurora_Initiative

- A time series pre-processing methodology with statistical and spectral analysis for classifying non-stationary stochastic biosignals

- Improvised methods for tackling big data stream mining challenges: case study of human activity recognition

- Social Recommendation using Graph Database Neo4j: Mini Blog, Twitter Social Network Graph Case Study
  - https://www.researchgate.net/publication/315318815_Social_Recommendation_using_Graph_Database_Neo4j_Mini_Blog_Twitter_Social_Network_Graph_Case_Study

- Rare Event Prediction Using Similarity Majority Under-Sampling Technique
  - https://link.springer.com/article/10.1007/978-981-10-7242-0_3

- NSPRING: the SPRING extension for subsequence matching of time series supporting normalization

- Improving the classification performance of biological imbalanced datasets by swarm optimization algorithms

- Recent advances in metaheuristic algorithms: Does the Makara dragon exist?

- Discovering sub-patterns from time series using a normalized cross-match algorithm

- GPU-enabled back-propagation artificial neural network for digit recognition in parallel

- Gesture recognition from data streams of human motion sensor using accelerated PSO swarm search feature selection algorithm
  - https://www.semanticscholar.org/paper/Gesture-Recognition-from-Data-Streams-of-Human-PSO-Fong-Liang/8f5d4f2fe7d05a95fe4ff7329ad613bd56c77371

Recent Publication on IoMT:

- INTERNET OF MEDICAL THINGS (IOMT): TRENDS AND CHALLENGES

- Internet of Everything as a Platform for Extreme Automation
- Cyber Physical Systems: A New Frontier of Artificial Intelligence: Summary Paper
- Fast Incremental Learning With Swarm Decision Table and Stochastic Feature Selection in an IoT Extreme Automation Environment
- Empowering Extreme Automation via Zero-Touch Operations and GPU Parallelization
- Digital Health in the Era of Extreme Automation
- The Robotization of Extreme Automation: The Balance Between Fear and Courage
- EDI with Blockchain as an Enabler for Extreme Automation
- Fab Labs: A Platform for Innovation and Extreme Automation
- Developing an Android App for Dementia Patient Location: Prevention of Wandering Case Study
- Smart city and IoT

My Published Teaching Books (In Arabic):

My Published Research Book:
My Published Chapters in Books:

For My IEEE Publications:

Please Visit https://ieeexplore.ieee.org/Xplore/home.jsp and provide my name (Sabah Mohammed)-

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For My ACM Publications and Citations:
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My PubMed Publications: