

## JAZAN UNIVERSITY

## KINGDOM OF SAUDI ARABIA

## COLLEGE OF ENGINEERING & COMPUTER SCIENCE DEPARTMENT OF COMPUTER SCIENCE

## Dr. UMA PERUMAL ASSISTANT PROFESSOR

uperumal@jazanu.edu.sa, prmluma@gmail.com						
Educational Qualification	<ul> <li>Ph.D. (Computer Science &amp; Engineering), Magadh University (A State University), INDIA.</li> <li>MCA, Bharathidhasan University (A State University), INDIA.</li> <li>PG Diploma in Programme Engineering (PGDPE), Bankatlal Badruka Centre for Information Technology, India.</li> <li>B.Sc. (Computer Science), Osmania University (A State University), INDIA.</li> </ul>					
Experience	Teaching	Working in Jazan University, Saudi Arabia as Assistant Professor, College of Computer Science & Information Systems, Academic Campus for Girls since October 2010.  Worked in IBRI College of Technology, IBRI, Ministry of Manpower, Sultanate of Oman, as Lecturer, Department of Information Technology, from January 2009 to September 2010.  Worked in Padala Rama Reddi College, Osmania University, Hyderabad, India, as Associate Professor, Post Graduate Department of Computer Science, from September 2008 to January 2009.  Worked in Nizam Institute of Computer Sciences, Osmania University, Hyderabad, India, as Associate Professor (Reader), Post Graduate Department of Computer Science, from September 1999 to September 2008.				
	Industry	<ol> <li>Worked in Sulakshana Circuits Ltd., Bollaram, Hyderabad, India, as a Software Engineer, Electronic Data Processing Department, from March 1998 to June 1999.</li> <li>Worked in Sanghi Industries Ltd., Sanghi Nagar, Hyderabad, India, as a Junior Computer Programmer, Electronic Data Processing Department, from February 1996 to March 1998.</li> </ol>				
Area of Interests / Research		a e e e e e e e e e e e e e e e e e e e				

- D. Gunaseelan and P.Uma, "An Efficient Algorithm for Mining Association Rules in Massive Datasets". In the Global Journal of Computer Science & Technology Software & Data Engineering, (2012), Vol.12 (1), PP 5-10.
- D. Gunaseelan and P.Uma, "An Improved Frequent Pattern Algorithm for Mining Association Rules". In the International Journal of Information and Communication Technology Research, (2012), Vol.2 (5), PP 436-441
- Mohammed Waseem Ashfaque, Sayyada Sara Banu, Mohammed Ali Sohail, Quadri N.Naveed, Perumal Uma," Remote Sensering Using Android Mobile to Contoll Robotics", International Journal of Electrical, Electronics and Computer Systems (IJEECS), ISSN (Online): 2347-2820, Vol.2, Issue 11, 12, 2014.
- Mohammed Waseem Ashfaque, Sayyada Sara Banu, Quadri N. Naveed, Dr. Perumal Uma, "A Review on Emerging Trends, Applications and Issues of Geospatial Technology in Public Health in Indian Scenario", International Journal of Scientific & Engineering Research, Vol.5, Issue 12, December-2014 282 ISSN 2229-5518.
- Sayyada Sara Banu, Mohammed Waseem Ashfaque, Dr.Perumal Uma, Quadri S.S Ali Ahmed," Data Mining Techniques on Mobile Computing Management and Service Oriented Architecture of Web Services", International Journal of Electrical, Electronics and Computer Systems (IJEECS), ISSN (Online): 2347-2820, Vol.3, Issue 2 2015.
- Sayyada Sara Banu, Mohammed Waseem Ashfaque, Perumal Uma, "Automatic Segmentation of Retinal Vasculature Detection of Diabetic Retinopathy for Early Using SVM", International Journal of Computer Applications (0975 – 8887), Vol.111 – No 2, February 2015.
- Sayyada Sara Banu, Dr.Perumal Uma, Mohammed Waseem Ashfaque, Quadri S.S Ali Ahmed," A Review on Visualization Approaches of Data Mining in Heavy Spatial Databases", IOSR Journal Of Computer Engineering (IOSR-JCE) e-ISSN: 2278- 0661,p-ISSN: 2278-8727, Vol 17, Issue 1, Ver. V (Jan Feb. 2015), PP 95-105.
- Sayyada Sara Banu, Dr.Perumal Uma, Mohammed Waseem Ashfaque, "Application Based Technical Approaches of Data Mining in Pharmaceuticals and Research Approaches in Biomedical and Bioinformatics", International Journal of Recent and Innovation Trends in Computing and Communication (IJRITCC) A unit Of Auricle Technologies Pvt. Ltd, ISSN: 2321-8169, vol.3, Issue 3.
- Sayyada Sara Banu, Dr. Perumal Uma, Mohammed Waseem Ashfaque, "Data Mining Based Soft Computing Skills Towards Prevention of Cyber Crimes On Web", International Journal of Recent and Innovation Trends in Computing and Communication (IJRITCC) A unit of Auricle Technologies Pvt. Ltd, ISSN: 2321-8169, Vol.3, Issue 3.
- Mohammed. Waseem Ashfaque, Sayyada Sara Banu, Dr.Perumal Uma, Quadri N.Naveed, "Analysis of E-Cigarettes, Merits, Demerits and Its Potential Impact Factor on Public Health. (CS128)", Proceedings of International Conference on ICCCPT and ICAIECES 2015, Velammal Engineering College, Chennai 22-23 April 2015, SPRINGER. Pg no 18.
- Mubeena Shaik , Naseema Shaik , Ahmed Unnisa Begum , Sameera Iqbal , Dr P.Uma , Raheem Unnisa Begum, "Optimising Data Using K-Means Clustering Algorithm", International Journal of Engineering Research and Applications, ISSN: 2248-9622, Vol. 5, Issue 4, April 2015, pp.95-98.
- P. Uma, D. Gunaseelan, "Educational Data Mining Approach For Analyzing Conventional Teaching And E-Learning Methodology In Academic Institutions – A Case Study of Jazan University", International Journal of Research and Reviews in Applicable Mathematics and Computer Science, Vol. 8, No. 2, April 2016, ISSN 2249-8915.
- D. Gunaseelan and Perumal Uma, "Web Based Electronic Medical Record System for Central Hospitals in Kingdom of Saudi Arabia", International Journal of Computer Information Systems, Vol. 2, No.5, May 2016.
- Uma Perumal and Maha Ibrahim Shaabi, "Indexing Object Database using HC-Tree", International Journal of Engineering and Advanced Technology (IJEAT), Vol 9, Issue-3, February, 2020.

- Uma Perumal, Mohammed Hameed Alhameed and Fathe Jeribi, "Wireless Network Technologies
  For Emergency Remote Teaching And Predicting Teaching Staff Performance", Design
  Engineering Issue: 7, pp 13169-13181 September 2021.
- Sumegh Tharewal, Mohammed Waseem Ashfaque, Sayyada Sara Banu, Perumal Uma, Samar Mansour Hassen, Mohammad Shabaz, "Intrusion Detection System for Industrial Internet of Things Based on Deep Reinforcement Learning" Wireless Communications and Mobile Computing, March 2022. https://doi.org/10.1155/2022/902319.
- Srivel Ravi, Saravanan Matheswaran, Uma Perumal, Shanthi Sivakumar, Srinivas Kumar Palvadi, "Adaptive trust-based secure and optimal route selection algorithm for MANET using hybrid fuzzy optimization", "Peer-to-Peer Networking and Applications", September 2022. https://doi.org/10.1007/s12083-022-01351-2.[Springer]
- Mohammed Hameed Alhameed, S. Shanthi, Uma Perumal, Fathe Jeribi "Remote Patient Monitoring: Data Sharing and Prediction Using Machine Learning" (Pages 317-337) Tele-Healthcare: Applications of Artificial Intelligence and Soft Computing Techniques July 2022. Book Chapter
- S.Shanthi, R. Nidhya, Uma Perumal, Manish Kumar," An Efficient IoT framewoek for Patient Monitoring and Predicting Heart Disease Based on Machine Learning Algorithms" (Pages: 179-200) Tele-Healthcare: Applications of Artificial Intelligence and Soft Computing Techniques July 2022. Book Chapter
- R.Srivel, K.Kalaiselvi, S. Shanthi, Uma Perumal, "An Automation Query Expansion Strategy for Information Retrieval by using Fuzzy Based Grasshopper Optimization algorithm on medical datasets", Concurrency and Computation Practice and Experience, 2023.35(3): e7418. doi:10.1002/cpe.7418
- Siva Malar R, Uma Perumal, Umi Salma B, Dinesh Komarasamy, "Rapid Chaotic-based Image Encryption by Combining Chaotic and Non-Chaotic Scrambling Techniques Automating", IEEE 7th International Conference on Computing Methodologies and Communication (ICCMC), pp 1189-1194 Erode, India 2023.
- Fathe Jeribi & Uma Perumal, "Lesion Detection Based BT Type Classification Model Using SVT-KLD-FCM and VCR-50" Proceedings of the 19th International Conference on Computing and Information Technology (IC2IT 2023), Lecture Notes in Networks Systems, vol 679, Springer, https://doi.org/10.1007/978-3-031-30474-3\_2.
- Jeribi, Fathe, Shaik Rafi Ahamed, Uma Perumal, Mohammed Hameed Alhameed, and Manjunatha Chari Kamsali. 2023. "Developing an MQ-LSTM-Based Cultural Tourism Accelerator with Database Security" Sustainability 15, no. 23: 16276. https://doi.org/10.3390/su152316276 MDPI.
- Uma Perumal, **Application Of Machine Learning For Pilots Training**, Advanced Engineering Science, 2024, 56 (01), 16-25
- Jeribi F, Uma Perumal, Alhameed M, "Recommendation System for Sustainable Day and Night-Time Cultural Tourism Using the Mean Signed Error-Centric Recurrent Neural Network for Riyadh Historical Sites". Sustainability. 2024; 16(13):5566. https://doi.org/10.3390/su16135566.
- Uma Perumal, Jeribi F, Alhameed MH, "An Enhanced Transportation System for People of Determination". Sensors. 2024; 24(19):6411. https://doi.org/10.3390/s24196411.
- Uma Perumal, "Virtual Reality Technology for Early Detection and Diagnosis of Autism Spectrum Disorder". Journal of Engineering and Applied Sciences", [cited November 12, 2024]; Online First: 06 Oct, 2024. doi:10.5455/jeas.2024021105.
- Uma Perumal, "Tourism Recommendation System Using Spatial and Demographic Features".
   Journal of Engineering and Applied Sciences", 2024, 11(2): 84-98.

Patent	IoT enabled method for detecting impressions based on artificial intelligence and deep learning. Patent No: 202111043586, 2021						
List of Funded Projects	Year	Organization	Title	Role			
	2024	Deanship of Scientific Research, Jazan University	Analyzing The Impact Of Sleep Patterns On Health And Well- Being Using Machine Learning – A Case Study	Co-Investigator			
	2023		AI Technology In Promoting And Enhancing The Tourism And Heritage Sector In The Kingdom Of Saudi Arabia.	Co-Investigator			
	2014		Educational Data Mining Approach for analyzing Conventional Teaching and E-	Principal Investigator			
	2015		Learning Methodology in Academic Institutions – A case study in Jazan University				
Professional Memberships	FELLOW OF COMPUTER SCIENCE RESEARCH COUNCIL (FCSRC)  MEMBER OF THE INTERNATIONAL ASSOCIATION OF ENGINEERS (IAENG)						