

JAWAD NAGI

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GENDER: Male
NATIONALITY: Pakistani

RELIGION: Islam
DATE OF BIRTH: 23rd March 1985

CAREER OBJECTIVE

To obtain a challenging position in a growth-oriented organization utilizing my educational and research experience catering to Electrical and Computer Engineering sectors, preferably in oil-field service organizations, hydrocarbon and petrochemical industries, and refineries.

EDUCATIONAL BACKGROUND

2008-2009: *Masters of Computer Science*

Faculty of Computer Science and Information Technology
Universiti of Malaya, 50603 Kuala Lumpur, Malaysia.
Project Title: ***“Development of A Computer-Aided Detection System for Detection of Cancerous Cells in Digital Mammograms using Support Vector Machines”***
Area of Research: Image Processing

2008-2009: *Masters of Electrical Engineering*

Department of Electronics and Communication Engineering
Universiti Tenaga Nasional, Km 7, Jalan Kajang-Puchong, 43009 Selangor, Malaysia.
Project Title: ***“Non-Technical Loss (NTL) Detection for Metered Customers in Power Utilities using Support Vector Machines and Fuzzy Inference System”***
Area of Research: Pattern Recognition

Courses conducted:

- Tutorials for ***Electrical Machines and Drives***, Semester 1, 2008/2009.
- Tutorials for ***Control Systems***, Semester 2, 2008/2009.

2002-2007: *Bachelors of Electrical and Electronics Engineering (Honors)*

Department of Electronics and Communication Engineering
Universiti Tenaga Nasional, Km 7, Jalan Kajang-Puchong, 43009 Selangor, Malaysia.
Project Title: ***“Development of a Pose Invariant Face Recognition System using the Discrete Cosine Transform and Self-Organizing Maps”***
Area of Research: Artificial Intelligence

Major subjects taken:

- Electronic Analysis and Design
- Elements of Mechatronics
- Power Electronics
- Control Systems
- Electromechanical Devices
- Digital Signal Processing
- Microprocessor Systems
- Artificial Intelligence

RESEARCH AREAS AND INTERESTS

Research interests: Pattern recognition and classification, Image processing, Fuzzy logic, Expert systems, Neural networks, Support vector machines, Neuro-fuzzy systems, Load forecasting, Applications of artificial intelligence to power systems, and Artificial intelligence based computer-aided detection systems.

WORK AND RESEARCH EXPERIENCE

January 2008: *Project Engineer, Power Engineering Centre, Universiti Tenaga Nasional*

- TNB Research project collaborated with TNB Distribution: ***“Development of an Intelligent System for Detection of Abnormalities and Electricity Theft for Remote Meters in the TNB High Voltage Distribution Network”***.
- Development of a prediction model for crude oil systems using oil field data from different geographical regions: ***“Prediction of PVT properties in Crude Oil Systems using Support Vector Machines”***.
- TNB Research project collaborated with TNB Distribution: ***“Development of an Intelligent System for Detection of Abnormalities and Probable Fraud in Tenaga Nasional Berhad (TNB) Low Voltage Distribution Network”***.
- Improving power load forecasting techniques using a time-series approach: ***“Design of a Hybrid Model for Midterm Load Forecasting in Power Utilities”***.
- Development of an intelligent system using signal processing techniques: ***“Intelligent Detection of Dual-Tone Multi-Frequency Tones”***.
- Research case study: ***“Palm Biodiesel Efficiency in Compression Ignition Engines for the Energy Demands of the Future”***.

April 2006: *Trainee Engineer, VA TECH SAT Sdn. Bhd.*

Industrial training at VA TECH SAT Sdn. Bhd. for duration of three months. Assisted company engineers, technicians and administrative staff in their daily routine tasks and company projects.

UNDERGRADUATE PROJECTS

October 2007: *Artificial Intelligence, Class Project*

Project title: ***“Development of an Automated Controller for a Thermal Process using an Adaptive Neuro-Fuzzy Inference System”***.

April 2006: *Microprocessor Laboratory, Class Project*

Project title: ***“Development of an Intelligent Pedestrian Crossing Traffic Light System using the Motorola MC68HC11 Microcontroller”***.

MAJOR ACHIEVEMENTS

- May 2009:** Awarded **“Silver”** medal in ***Invention, Innovation and Technology Exhibition (ITEX) 2009***, for research project titled: ***“Intelligent Detection and Classification System for Utility Losses”***.
- March 2009:** Postgraduate finalist in ***“Shell Inter-Varsity Student Paper Presentation Contest (S-SPEC) 2009”*** poster competition organized by UTM and Shell.
- September 2008:** ***“Executive Committee (EXCO) Officer of the International Students Society”*** of Universiti Tenaga Nasional for academic year of 2008/2009.
- February 2008:** Undergraduate finalist in ***“Shell Inter-Varsity Student Paper Presentation Contest (S-SPEC) 2008”*** paper competition organized by UTM and Shell.
- January 2008:** ***“President of the International Students Society”*** of Universiti Tenaga Nasional for academic year of 2007/2008.
- August 2007:** ***CANSAT (Nano-Satellite) Project, Malaysian National Space Agency “Head of Testing and Diagnosis Division”*** of the UNITEN CANSAT Team 2007”. Competition organized by the Malaysian National Space Agency (ANGKASA).
- July 2007:** Awarded **“Bronze”** medal for Final Year Project in ***“Innovation and Invention Design Competition (INDEC) 2007”*** organized by Universiti Tenaga Nasional.
- May 2007:** Awarded **“Silver”** position in ***“Majlis Sukan Universiti Malaysia (MASUM) 2007”*** for Cricket hosted by Universiti Sains Malaysia (USM).

COMPUTING AND SOFT SKILLS

◆ Programming Languages:	Proficiency	Years
• Tcl	Advanced	> 2
• HTML	Basic	> 1
• C/C++	Intermediate	> 2
• SQL	Basic	< 1
◆ Design and Simulation Software:	Proficiency	Years
• NI LabView 7.1/NI Multisim 10.0	Intermediate	< 1
• MATLAB 7.9.0 (R2009b)	Advanced	> 5
• Microsoft Visual Basic 6.0	Intermediate	> 2
• Microsoft Visual Basic .NET 2005/2008	Intermediate	< 2
• Microsoft Visual C++ 6.0	Basic	> 1
• Microsoft Visual C++ .NET 2005/2008	Basic	< 1
◆ Others:	Proficiency	Years
• Microsoft Word/Excel/Access/PowerPoint	Intermediate	> 5
• Windows 98/2000/XP/Vista	Advanced	> 5

ACADEMIC EXPERIENCE

- December 2008:** Conducted workshop for TNB Research engineers on: ***“The Basic Fundamentals of MATLAB and its Toolboxes”*** at Universiti Tenaga Nasional.
- April 2007:** Organized ***“Recreational Field Trip”*** for International Students of Universiti Tenaga Nasional to Redang Island.
- August 2006:** Participated as guest speaker and host for ***“International Students Society Cultural Night 2006”*** of Universiti Tenaga Nasional.
- July 2003:** Volunteered as ***“Subject Registration Facilitator”*** for the new student intake of Universiti Tenaga Nasional for Semester 1, 2003/2004.

LIST OF PUBLICATIONS

- [1] Jawad Nagi, Keem Siah Yap, Sieh Kiong Tiong, Syed Khaleel Ahmed, and Abdul Malik Mohammad, ***“Non-technical Loss Detection for Metered Customers in Power Utility using Support Vector Machines”***, accepted for publication in *IEEE Transactions on Power Delivery* on Aug. 13, 2009. Paper TPWRD-00920-2008.R1.
- [2] Farrukh Nagi, Logah Perumal, and Jawad Nagi, ***“A New Integrated Fuzzy Bang-Bang Relay Control System”***, *Mechatronics*, vol. 19, no. 5, pp. 748–760, Aug. 2009.
- [3] Jawad Nagi, Keem Siah Yap, Sieh Kiong Tiong, and Syed Khaleel Ahmed, ***“Electricity Load Forecasting for Power Utilities Using Self-Organizing Maps and Support Vector Machines”***, submitted to *International Journal on Artificial Intelligence Tools* on Dec. 20, 2008. Paper is currently in review process.
- [4] Jawad Nagi, Keem Siah Yap, Sieh Kiong Tiong, Abdul Malik Mohammad, and Syed Khaleel Ahmed, ***“Non-Technical Loss Analysis for Detection of Electricity Theft using Support Vector Machines”***, in Proc. of the 2nd IEEE International Power and Energy Conference, Dec. 1-3, 2008, Johor Bahru, Malaysia, pp. 907–912.
- [5] Jawad Nagi, Keem Siah Yap, Sieh Kiong Tiong, and Syed Khaleel Ahmed, ***“Detection of Abnormalities and Electricity Theft using Genetic Support Vector Machines”***, in Proc. of the IEEE Region 10 Conference, Nov. 18-21, 2008, Hyderabad, India, pp. 1–6.
- [6] Jawad Nagi, Syed Khaleel Ahmed, and Farrukh Nagi, ***“Pose Invariant Face Recognition using Hybrid DWT-DCT Frequency Features with Support Vector Machines”***, in Proc. of the 4th International Conference on Information Technology and Multimedia at UNITEN, Nov. 18-19, 2008, Bandar Baru Bangi, Selangor, Malaysia, pp. 99–104.
- [7] Jawad Nagi, Keem Siah Yap, Sieh Kiong Tiong, and Abdul Malik Mohammad, ***“Intelligent System for Detection of Abnormalities and Theft of Electricity using Genetic Algorithm and Support Vector Machines”***, in Proc. of the 4th International Conference on Information Technology and Multimedia at UNITEN, Nov. 18-19, 2008, Bandar Baru Bangi, Selangor, Malaysia, pp. 122–127.

- [8] Jawad Nagi, Keem Siah Yap, Sieh Kiong Tiong, Syed Khaleel Ahmed, and Farrukh Nagi, ***“Intelligent Detection of DTMF Tones using a Hybrid Signal Processing Technique with Support Vector Machines”***, in Proc. of the International Symposium on Information Technology, Aug. 26-28, 2008, Kuala Lumpur, Malaysia, vol. 4, pp. 1–8.
- [9] Jawad Nagi, Sieh Kiong Tiong, Yap Keem Siah, and Syed Khaleel Ahmed, ***“Dual-tone Multi-frequency Signal Detection using Support Vector Machines”***, in Proc. of the 6th National Conference on Telecommunication Technologies and Malaysia Conference on Photonics, Aug. 26-28, 2008, Putrajaya, Malaysia, pp. 350–355.
- [10] Jawad Nagi, Syed Khaleel Ahmed, and Farrukh Nagi, ***“Palm Biodiesel an Alternative Green Renewable Energy for the Energy Demands of the Future”***, in Proc. of the International Conference on Renewable Energy and Sustainability, Jun. 16-20, 2008, Kuala Lumpur, Malaysia, pp. 79–94.
- [11] Jawad Nagi, Keem Siah Yap, Sieh Kiong Tiong, and Syed Khaleel Ahmed, ***“Electrical Power Load Forecasting using Hybrid Self-Organizing Maps and Support Vector Machines”***, in Proc. of the 2nd International Power Engineering and Optimization Conference, Jun. 4-5, 2008, Shah Alam, Malaysia, pp. 51–56.
- [12] Jawad Nagi, Syed Khaleel Ahmed, and Farrukh Nagi, ***“A MATLAB based Face Recognition System using Image Processing and Neural Networks”***, in Proc. of the 4th International Colloquium on Signal Processing and its Applications, Mar. 7-9, 2008, Kuala Lumpur, Malaysia, pp. 83–88.

REFERENCES

References available upon request.