

Mohammed Ismaeel Shekfa

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COMMUNICATIONS ENGINEER

PROFESSIONAL PROFILE

More than 10 years of experience managing Academic activities, teaching different courses, programming, lab preparation and activities, and all related administration works. Strong leader with motivational management style and reputation for building and retaining highly motivated academic teams.

PROFESSIONAL EXPERIENCE:

1. Instructor, UAE University, Al Ain, 1/09/2011 to Present
2. Academic Assistant, UAE University, Al Ain, 1/11/2004 to 31/8/2011
3. Site Engineer, Samar contractor Company, Abu Dhabi, 1/02/2004 to 31/10/2004

1. Academic Works:

- Teaching Different subjects like:
 - o Introduction to programming using C language and Matlab.
 - o Freshman lab experiments.
 - o Engineering Practice and Entrepreneurship. "Engineering Economy"
 - o Material Lab.
 - o Mechatronics lab experiments
 - o Design and Ethics.
 - o Control Systems lab and theory.
 - o Digital Logic Design lab
 - o Communication Theory lab.
 - o Information Coding and Theory.
- Professional in dealing with:
 - o AutoCAD course
 - o Matlab course
 - o Visual Basic course
 - o C language and other programming software.



- Managing and supervising all students' projects on the related industrial applications.
- Preparation of the courses plans, developing integrated plans and motivating new skills.
- Managing and supervising all lab experiments, setups and the related field verifications.
- Managing labs preparation and maintenance including equipment's like (Oscilloscope, Function Generator, and DMM....etc), required materials for each experiments, and the related technical inspection
- Setting up new experiments and building extra setups (Electrical and Mechanical Setups) according to number of students on each semester.
- Taking my responsibility in supervising and approving the purchase sections for the lab materials by ordering quotations, approving equipment specifications and following up with purchase process.
- Preparing course files with all information needs for the instructors and give suggestions to improve course skills.
- Assist in prepping and develop course syllabus
- Ipad development for all ERU courses by:
 - o Using and Making apps related to courses
 - o Using ibook apps
 - o Building electronics book related to course

2. Administration Works:

- Preparation of the Instructors and Academic Assistants schedules and course programs.
- Managing and assisting students in the preparation of their courses programs.
- Coordination with all University departments to ensure the availability of all required courses facilities (Halls, Laps, Stationery, Books and References).
- Scheduling the required courses activities like exams proctoring and Academic trips.
- Following up with all instructions come from the head of the department and take in consideration administration papers need to prepare for the university.

3. Committees Work :

- Chair of "Assessments and Continues Development" preparing course file related to ABET requirements
- Chair of "Class scheduling Committee" preparing timetable for all instructor in ERU unit
- Member in "Student Counseling Committee"
- Member in "Freshman Lab Maintenance and Development Committee"
- Member in "Ipad development Committee"

4. Research Interest, publication and conferences :

- Research interest:
 - o Nano particles effect in magnetic detection
 - o Radio Frequency Forth generation

- o Digital signal processing in implementing with real time application
- o Image Signal Enhancement using JPEG - 2000 with Matlab
- Publication:
 - o 2012, "Pathogen Detection Using Single Tunnel Junction Sensor (STJ) with Magnetic Nano Particles", Co Author: Mousa Hussian, and Yousef Al Haiek.
 - o 2011, "rapid Detection for Pathogen Using Single Tunnel Junction Magnetometry Sensor (STJ) using Labview"
- Conferences:
 - o 2011, "IV International Conference on Environmental, Industrial and Applied Microbiology (BioMicroWorld2011)", Torremolinos-Málaga (Spain).
 - o 2010, "Robotics design and manufacture", Al Ain, UAE
 - o 2012, "The second Renewal Energy Conference", Al Ain, UAE
 - o 2013, "The third Renewal Energy Conference", Al Ain, UAE

EDUCATION

- Master of Engineering (MSc) in Electrical Engineering (Communication Stream), United Arab Emirates University, 2011, GPA 3.32/4.00.
 - Courses covered in master degree period:

▪ Project Management	▪ Advance DSP	▪ Numerical analysis
▪ Detection and Estimation	▪ Communication Network	▪ Contemporary Digital Systems
▪ Computational Vision	▪ Neural Network	▪ Analog and mix circuit design
- Bachelor of Engineering (BSc) in Electrical Engineering (Communication Stream), United Arab Emirates University, 2004. GPA 3.58/4.00.

Master Project

Title of Master Project: Magnetometry for Rapid Detection of Pathogenic Agents

Infectious diseases caused by bacteria manifestation are killing millions of people every year Worldwide. There is an increased demand for the rapid detection of pathogenic agents that cause these infections. Most widely a biochemical tests were used to detect the bacteria, these tests can accelerate the detection of bacteria but still need time to sense bacterial infection that can reach to 30 hours under optimal conditions. According to that, idea to create and develop device easy, portable, lightweight, and capable of detecting the bacteria was started with specification of high sensitivity and very short time of detection. The main objective of this thesis is to develop a pathogenic detection system that utilizes magnetic nano - particles that can provide an accurate result in less than an hour.

ADDITIONAL COURSEWORK AND PROFISIONAL DEVELOPMENT

- **Graduation project:** Real time implementation using Taxes Instrument Digital Signal Processing (DSP). The main objective for this project is controlling an AC induction machine with the DSP using space vector PWM and V/Hz techniques. Equipment that was used in this project is Taxes Instrument (DSP) and Digital motor control (DMC1500), AC induction machine, and power supply stage.
- **Industrial Training** period was about Wireless Controlling Robot Via Bluetooth kit using, M16C, Microcontroller, PDA and Ericsson Bluetooth starter kit (Training was in Vassa Polytechnic, Finland).
- SCisco Certificate.
- Networking Omnix international.
- IEEE ceremony for robotics experiment.
- Tofel , ILETS Certified.
- Good programming skills using C, Visual Basic, LabView and MATLAB and ability to learn any programming language in short period.
- Good Knowledge in different type of Windows 95 - windows 8. Also work with Mac OSX
- Microsoft office, Microsoft Project, Concept Drawing Project, Concept Drawing Pro, PDF files and Internet. Ability to learn any software from Microsoft and learn other software rapidly.
- Knowledge of Electrical software such as: Circuit Maker, Electronic Work Bench, Pspice and Or Cad.
- Sketchup.
- ArchiCAD.
- AutoCAD 2D and 3D.
- Excellent Communication skills.
- Ability to manage tasks and finished on time.
- Excellent in Team worker and had the skills to be team leader

Languages: Fluent English & Arabic.

Interests

- Sport Activates like Football, Basketball, swimming and Boling
- Reading books, searching on net, chatting, and interest with new inventions
- Traveling, Adventure, and Camping