FARUK YILDIZ

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EDUCATION

- ***Doctor of Industrial Technology***, Department of Industrial Technology (August, 2008)
  University of Northern Iowa Cumulative GPA: 4.0/4.0 Cedar Falls, IA
- ***Master of Computer Science***, School of Engineering (February, 2005)
  City University of New York Cumulative GPA: 3.2/4.0 New York, NY
- ***Bachelor of Science*, Computer Science**, College of Natural Sciences (June, 2000)
  M.H. Dulati Taraz State University Cumulative GPA: 3.7/4.0 Taraz, Kazakhstan

EMPLOYMENT

08/08-Current **Sam Houston State University**, Department of Agricultural and Industrial Sciences Huntsville, TX
Assistant Professor, Industrial Technology Program
Teaching: IT 134 Electronics Technology I (DC Circuits)
IT 232 Electronics Technology II (AC Circuits)
IT 161 Engineering Graphics
IT 439/469 Computer Aided Drafting Productivity
IT 467 Mechanical Modeling

08/05-06/08 **University of Northern Iowa**, Department of Industrial Technology Cedar Falls, IA
Graduate Teaching & Research Assistant, **Electrical and Information Engineering Technology**

Teaching: 330:037 Introduction to Circuits
330:167 Power Electronics Applications
330:039 Circuit & Systems
330:038 Introduction to Electrical Power and Machinery

- Evaluation of materials, labs, and problem sessions
- Conduct labs including, revisions and simulations
- Preparation for teaching
- Involved in developing and revising lab manuals

Research: Low & High Power Energy Conversion systems, Renewable Energy, Data Acquisition

- Hydrogen Fuel Cell to Electricity Conversion for Home Appliances in the lab environment
- Conversion of Mechanical Energy into Electrical Energy lab simulations.
- Electricity generation Techniques using active/passive human power
- Data Acquisition using NI Lab View and NI tools
- Self powered Wireless Sensor Networks

05/07-07/08 **University of Northern Iowa,** Strategic Marketing Services Cedar Falls, IA
Database and Web Administrator

- Design and maintain division web sites
- Design and maintain variety of databases under SQL server
- Export & Import Customer Web surveys into Databases

09/05-07/08 **John Deere Waterloo Works,** Product Engineering Center Waterloo, IA
Internship/Research Intern, Hitch, Wheel, Tire and Track Engineering

- 3D-design and modeling of tractor components using Pro/E Wildfire for Hitch, Wheel, Tires, and Track engineering group
- Creating engineering drawings with Geometric Dimensioning and Tolerancing (GD&T)
- Creating 3D top down engineering assemblies to help manufacturing, production, and assembly processes

05/07-07/08 **University of Northern Iowa,** Classic Upward Bound Program Cedar Falls, IA
Math-Science Instructor, Calculus & Geometry

- Classes: “Pre Calculus”, “Advanced Placement Calculus”, and “Geometry” for High School students preparing for college education

08/05-08/07 **University of Northern Iowa**, College of Natural Sciences Cedar Falls, IA
IT/ Computer Administrator
- IT support for Faculty and Staff Computers
- System and network administration for Computer Labs.

02/04-08/04 **United Nations Headquarters,** Staff Counselor’s Office, OHRM/DOD New York City, NY
Internship/IT Intern, Database Management and Web Development
- Design and maintain division web site under intranet linked to database
- Design and maintain new databases under SQL server
- Teach new database systems and web interactions to department employees

CONFERENCE PUBLICATIONS

Yildiz F., “*Low Power Ambient Energy Harvesting and Conversion and Storage Circuits*”, The International Conference on Information Technology - New Generations (ITNG 2009), Proceedings of IEEE’s (Institute of Electrical and Electronics Engineers) Computer Society, Circuit and System Design Track, April 2009, Las Vegas, NV.

Pecen R., **Yildiz F**., Baltaci K., “*Design and Implementation of a Hydrogen Fuel Cell Data Acquisition and Monitoring Scheme for Educational Institutions*”, Proceedings of 2008 American Society of Engineering Education, Energy Conversion Conservation Division, June 2008, Pittsburgh, PA.

Pecen R., Zora A., **Yildiz F**., “Utilizing Advanced Software Tools for Engineering Technology Curriculum as a bridge between Academia and Industry”, Proceedings of 2008 American Society of Engineering Education, Energy Conversion Conservation Division, June 2008, Pittsburgh, PA.

Yildiz F., Zhu J., Pecen R., “*Techniques of Harvesting Ambient Energy Sources & Energy Scavenging Experiments, Design and Implement an Energy Harvesting Device*”, EECT (Electricity, Electronics, Computer Technology), Proceedings of 2007, National Association of Industrial Technology (NAIT), October 2007, Florida.

Yildiz F., Pecen R., Baltaci K., “*A Lab View PDS v8.20 Based Novel DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station Unit*”, EECT (Electricity, Electronics, Computer Technology), Proceedings of 2007, National Association of Industrial Technology (NAIT), October, 2007, Florida.

Yildiz F., Zhu J., Pecen R., Guo L., “*Energy Scavenging for Wireless Sensor Nodes with a Focus on Rotation to Electricity Conversion*”, Proceedings of 2007 American Society of Engineering Education, Energy Conversion Conservation Division, June 2007, Honolulu, Hawaii.

Pecen R., **Yildiz F**., Baltaci K., “*Development of a DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station using LabView™ PDS v8.20”*, Proceedings of 2007, International Hydrogen Energy Congress and Exhibition (IHEC 2007), July 2007, Istanbul, Turkey.

Yildiz F., Zhu J., “*Applications of Wireless Sensor Networks in Industrial Environments*”, EECT (Electricity, Electronics, Computer Technology), Proceedings of 2006, National Association of Industrial Technology (NAIT), October 2006, Ohio

PROFESSIONAL/ACADEMIC PROJECTS

United Nations Headquarters New York, NY

Project, Database Design

- Designed a new database linked to intranet of UN for Staff Counselor's Department
- Designed a new web site connected to the new database for Staff Counselor Department.

City College of New York, CUNY New York, NY

Graduate Work, Vehicle Classification

- Designed three different classifiers to classify vehicles.
- Implemented mean distance, KNN algorithms and designed neural network.
- Made statistical analysis of classifiers based on confusion matrices and identified the best classifier for the vehicle classification problem. (Matlab)

PRESENTAIONS

Design and Implementation of a Hydrogen Fuel Cell Data Acquisition and Monitoring Scheme for Educational Institutions. American Society of Engineering Education, Energy Conversion Conservation Division, June 2008, Pittsburgh, PA.

Utilizing Advanced Software Tools for Engineering Technology Curriculum as a bridge between Academia and Industry. American Society of Engineering Education, Energy Conversion Conservation Division, June 2008, Pittsburgh, PA.

Energy Scavenging for Wireless Sensor Nodes with a Focus on Rotation to Electricity Conversion. American Society of Engineering Education, Energy Conversion Conservation Division, June 2007, Honolulu, Hawaii.

Techniques of Harvesting Ambient Energy Sources & Energy Scavenging Experiments, Design and Implement an Energy Harvesting Device. The 2007 NAIT's 40th Annual Convention "Past - Present - Future", November 2007, Panama City, Florida.

A Lab View PDS v8.20 Based Novel DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station Unit. The 2007 NAIT's 40th Annual Convention "Past - Present - Future", November 2007, Panama City, Florida.

Applications of Wireless Sensor Networks in Industrial Environments. The 2006 National Association of Industrial Technology Convention, "Linking the World through Technology", Cleveland, Ohio November 2006.

AWARDS & SCHOLARSHIPS

University of Northern Iowa, Graduate College Cedar Falls, IA
Received "**Outstanding Doctoral Dissertation Award**" , December 2008
Doctoral Dissertation "Low Power Energy Harvesting and Storage Techniques from Ambient Human Powered Energy Sources" has been selected by a faculty committee to receive the award.

08/06-06/07 **University of Northern Iowa,** Graduate College Cedar Falls, IA
GRASP (Graduate Research Awards for Student Projects)

08/05-06/08 **University of Northern Iowa**, Department of Industrial Technology Cedar Falls, IA
Graduate Scholarships

United Nations Headquarters, Staff Counselor's Office, OHRM/DOD New York, NY
Certificate and Recognition of Successful Internship, 2005

08/91-05/93 **Turkish Educational Foundation**, High School Education Support Scholarship during the High School — Istanbul, TR

TECHNICAL SKILLS

- 3D Solid modeling, drafting and analysis by Pro/E, Inventor and AutoCAD
- Piping, Surface Modeling, Mechanica, and Mechanism tools of Pro/E Wildfire
- Dynamic system simulations with EASY5, AMESim, Matlab, LT Spice, MultiSIM
- Programming with C/C++, Visual Basic 6.0, Delphi, Basic Stamp
- Web Design with PHP, HTML, Dream Weaver, Macromedia Flash, and Adobe Photoshop
- Database design and development using PHP, mySQL, SQL Server
- Network management with UNIX Solaris
- Computer Aided Instrumentation and Interfacing with NI LabView 8.20

PROFESSIONAL MEMBERSHIPS

American Society of Engineering Education (ASEE)

- Gulf Southwest Section
  - Design in Engineering Education
  - Energy Conversion and Conservation
  - Engineering Technology
  - Electrical and Computer
  - Engineering Ethics
  - Information Systems

Epsilon Pi Tau Honor Society (EPT)
Institute of Electrical and Electronics Engineers (IEEE)
National Association of Industrial Technology (NAIT)
Institute of Electrical and Electronics Engineers (IEEE) - Southern Section