

## **CURRICULUM VITAE**

*Seyed Feraydune Kashefi (nickname: Seyed Mousavi),*

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### ***EDUCATION:***

- *M.S. (2011) candidate in Civil Engineering University of Texas at Arlington.*
- *Ph. D. (2011) candidate in Bioengineering University of Texas at Arlington.*
- *Ph. D. (1999) in Electrical Engineering, from University of Texas at Dallas.*
- *M.S. (1990) in Physics from University of Texas at Dallas*
- *M.S. (1974) in Mathematics from University of Tehran*
- *B.Sc. (1972) in Mathematics from University of Tehran*

### ***EXPERTISE:***

- *Silicon processing*
- *Device physics*
- *IR spectroscopy*
- *Micro controller RF*
- *Optical study of biological tissue non-invasive*
- *Medical applications and imaging of near-infrared (NIR) techniques*
- *Nanotechnology and Nanobiotechnology*
- *Telecom system and network engineer*
- *Broadband network design and architecture*
- *Digital Signal Processing (DSP)*
- *Network management and security*
- *Mainframe, data center and database*
- *Knowledge of Civil Engineering methods and design*
- *Project/program management*
- *Analysis, summarization and reporting of technical data*

## **PROFESSIONAL EXPERIENCE:**

*Khavaran Higher-education Institute, Assistant Professor, 2009–Present*

- *Taught Electrical Circuit I, II, Communication Circuit, Communication Technology, Industrial Controllers and technical writing courses, supervised undergraduate students.*

*Imamreza International University, Assistant Professor, 2010–2011*

- *Faculty member of Bioelectric Engineering department.*
- *Taught electromagnetics, engineering economy, computer language, and technical writing courses, supervised graduate and undergraduate students.*

*University of Texas at Arlington, Research Associate and Adjunct Professor, 2003–Present*

- *Adjunct Professor for Mechanic Statics and Dynamics in department of Mechanic and Aerospace Engineering*
- *Adjunct Professor for Physics in department of Physics*
- *Adjunct Professor for Math courses in department of Mathematics.*
- *Worked on Toll Pricing Model for Managed Lanes system for Texas DOT project.*
- *Built wireless sensor to monitor brain blood dynamics.*
- *Conducted several researches in NIR Imaging for biomedical engineering.*
- *Set up a laboratory for educating students in biotechnology and lab principles.*
- *Set up a laboratory for studying electronic transition between quantum sub-bands in Silicon inversion and accumulation layers.*
- *Studies of optical and electronic properties and defects in MBE low-temperature grown GaAs (LT-GaAs) using IR spectroscopy, Photocurrent measurements and PL spectroscopy.*
- *Taught junior and senior courses, supervised graduate students, and gave a series of lectures on Telemedicine and Biotechnology.*

*Richland College Richardson, Mountain view College Dallas, North Lake College Irving, and Tarrant County College, Fort Worth, TX, Part Time Teacher, 2001–2005*

- *Taught Introduction to Experimental Techniques, Digital System, Math, Physics, Fundamentals of Networking, (Network +), Basic router configuration, and Personal Computer Hrdware (A+ Certification) courses.*

*Nortel Networks, Senior Member of Scientific Staff, Wireless e-Mobility, 1999 –2001*

- *Designed and engineered system and architecture wireless HLR authentication system.*
- *Supervised and led the development and implementation of the wireless satellite network system.*

- *Identified, developed and implemented standardized, industry recognized Project Management disciplines and supporting information and tools.*
- *Established and operated an Information Systems outsource vendor management system and participated in the re-negotiation of a multi-million dollar outsource agreement.*

*ALCATEL USA INC., Plano, Texas, Senior System Engineer, 1996–1999*

- *Led the team developing System Control Point (SCP) server initial product offering supplementary services including call forwarding, call hold, call waiting, call barring, etc. for the IN/IVR networking components.*
- *Coordinated multi-site service development interactions with the Advanced Intelligent Network (AIN) and SSP based Interactive Voice Response (IVR) development team, setup X.25 network for switching and SMS database server interfaces.*
- *Designed and established the technical infrastructure and security policies for call fraud detection and 800 call subscribers.*
- *Project leader for upgrade and release of several new switching products and Y2K compliance for the customers in Europe, Japan and Australia.*

*SABRE Decision Technologies, Dallas-Ft. Worth, Texas, Sr. Systems Analyst, 1992–1996*

- *Conducted software and operations research on reservation systems, quota management and forecasting models.*
- *Set up database, client server applications system and yield management products*
- *Managed government bids and proposals for \$5–20M programs*

*Arco Oil and Gas, Dallas, Texas, Sr. Systems Analyst, 1988–1992*

- *Set up multiplatform network and data communication system.*
- *Designed and implemented file and data transfer software system.*

*University of Texas Southwest Medical School, Dallas, Texas, Systems Analyst, 1984–1988*

- *Set up isotope tracking system.*
- *Designed and implemented database and computer programs for academic applications.*

**AWARDS:**

- *Listing in Who's Who in Engineering Education, 2002 – present.*

- *Nortel Network President's Gold Award for outstanding level of innovation and technical excellence, 1999*
- *UT Southwestern Award for excellence in programming, 1985*

**MEMBERSHIPS IN PROFESSIONAL SOCIETIES:**

- *IEEE – Institute of Electrical and Electronics Engineers*
- *SPIE – The International Society for Optical Engineering*
- *PTCB – Pharmacy Technician Certification Board*
- *AAPM – American Association of Physicists in Medicine*

**SELECTED PUBLICATIONS AND REPORTS TO CONFERENCES:**

- *R.Aminzadeh, F.Kashefi, "Energy-efficient cooperative communication in clustered wireless sensor networks", 13th International conference on Information Fusion 2010, Edinburgh*
- *R.Aminzadeh, F.Kashefi, "Hydraulic Pressure Distribution for Pipeline Networks By Wireless Sensors Network", IEEE Sensors 2010, Hawaii, USA.*
- *C. Rostamzadeh, F.G. Canavero, F. Kashefi, Noise Mitigation Analysis of a Pi-Filter for an Automotive Control Module, 2010 IEEE Symposium on Electromagnetic Compatibility, Fort Lauderdale, Florida (USA), July 25-30, 2010*
- *Participated in, "THE 2008 NSF-CBMS CONFERENCE ON INVERSE SCATTERING FOR RADAR IMAGING", May 27-May 31, 2008, Arlington, Texas, USA.*
- *Administrator of review system, "Vehicle Power and Propulsion Conference (VPPC)", IEEE, September 9-12, 2007, Arlington, Texas, USA.*
- *Feraydune Kashefi, Donald E. Watenpaugh, Hanli Liu, "Obstructive sleep apnea screening by NIRS imaging", SPIE, March 23, 2007, Vol. 6424*
- *Geometry of Post's correspondence problem, co-author M. Ghandehari, Proceedings of Gulf Southwest ASEE conference at University of Texas Pan American 2007*
- *F. Kashefi, "Partial Differential Equation of a Three Dimensional Convex Body", 29th Annual Texas Partial Differential Equations Conference, March 25-26, 2006.*
- *Oral presentation in annual meeting of ACES, University of Texas at Arlington, March 2006.*
- *F. Kashefi, M. Ghandehari, An application of parallel-axis theorem to geometric inequalities. Joint Mathematics Meetings, San Antonio, Texas, 2006. Meeting #1014*
- *F. Kashefi, M. Ghandehari, Parallel Systems are More Reliable, INFORMS, San Francisco, California, 2005.*

- *F. Kashefi, Geometric problems in engineering mechanics, Technical Report #352, Department of Mathematics , University of Texas at Arlington, November 2005, co-author M. Ghandehari.*
- *F. Kashefi, "Rapidly Training Device for Fiber Optic Neural Network", UTD Electrical Engineering Department, 1998.*