

Mohammad H. Rahnavard
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SUMMARY OF EXPERIENCE

Extensive experience in Design and Analysis of Antennas, as well as EMC and Signal Integrity for radiation compliance, conduction compliance and cross-talk, Microwave, and Optics. Additional background in Satellite Communication, Wireless Communication Systems & Sub-system, image quality solving problems of nonlinearity, banding in LED Drivers and Laser Drivers.

- Served as a trainer and mentor for design engineers and graduate students.
- Team-oriented, self-motivated with ability to analyze and solve system problems and manage multi-projects.
- Trained in six sigma process
- One of top three names on 6 US awarded Patents in EMC & signal quality

EDUCATION:

Ph. D., Electrical Engineering, University of Southern California.

M. S., Electrical Engineering, University of Southern California.

M. S., Electrical Engineering, Shiraz University, Shiraz, Iran.

B. S., Electrical Engineering, Shiraz University, Shiraz, Iran.

TECHNOLOGY

UNIX, FORTRAN, MATLAB, C, C++, Word, Excel, Access, PowerPoint, etc.

PROFESSIONAL EXPERIENCE:

TERADYNE CORPORATION

2008

Signal Integrity Hardware Engineer

- Signal delivery for power management of simultaneous cell phone testers
- Signal delivery for memory system testers

XEROX CORPORATION

1998 –2007

Senior Electronics Design & Development Engineer

- Consulted with EMC & Signal Integrity design engineers to resolve signal integrity and Electromagnetic Compatibility problems, allowing them to be compliant in EMC requirement.
- Developed and implemented image quality algorithms for Electronic Design & Development Unit to improve image quality of prototypes allowing advancement to production phase and avoiding cancellation of the projects.
- Improve nonlinearity, banding & distortion in Laser and LED Drivers to help the products to be marketable.
- One of top three names on 6 US awarded Patents in EMC & signal quality
- Trained Design Engineers by giving courses in EMC and Signal Integrity to pass compliance.
- Submitted abstracts submitted completed accepted papers and presented accepted papers derived from our activities to Society of Optical Engineers (SPIE).
- Modeling Distributed feedback laser.
- Completed six sigma training & obtained six sigma yellow belt.

- Completed EMC team project for six sigma green belt.

SOLAR TURBINE

1997 - 1998

Control Engineer

- Control System Design for Generators.

NEWPORT ELECTRONICS

1996 - 1997

EMC Engineer

- EMC/EMI Design to make products compliant with EMC regulations.

HUGHES SPACE AND COMMUNICATION DIVISION

1996

- Evaluate performance of subsystem of uplink & downlink of NMARSAT caused the project to Move to next phase.
- Evaluate performance (gain, directivity, etc.) of the Array Antennas which are used on the system. caused the project to move next phase.

ACADEMIC PROFESSIONAL EXPERIENCE

University of California Los Angeles (UCLA), CA

2001-2006

Adjunct Professor at Electrical Engineering Department

- Taught, Electric Circuit & Electric Measurement Courses.

University of Ottawa, Ottawa, Canada

1993 - 1994

Visiting Professor at Electrical Engineering Department

- Researched light wave communication, using grating-assisted fiber in Wave Division Multiplexer/Demultiplexer.
- Supervised graduate students studying electromagnetic & light wave technology.
- Taught courses on fiber optics & guided wave structures.

University of New Mexico, Albuquerque, New Mexico

1987 - 1988

Visiting Professor at Electrical Engineering Department

- Supervised graduate students in electromagnetic.
- Supervised graduates students in the use of gratings in distributed feedback lasers.
- Taught Electromagnetic field courses.

Shiraz University, Shiraz, Iran

1977 - 1993

Professor at Electrical Engineering Department

- Taught over 20 different graduate and undergraduate courses in the following fields: Antennas, Satellite Communication, Electromagnetic/fields & waves, Fiber optics/Electro-optics, Microwave, Communications and Electronics.
- Supervised graduate students in their Master Thesis.
- Acted as Chairman of Electrical Engineering Department.
- Acted as Associate to Dean of School of Engineering in Student Affairs, Academic Affairs & Research Affairs at different period.

ADDENDUM

AWARDS:

Shiraz University Exclusive Scholarship for Ph.D. Study

1974- 1977

SELECTED PATENTS:

Awarded 6 US patents (**EMC, Signal Integrity & Image Quality**).

Filed 10 U. S. Patents. (**Microwave, EMC & Signal Integrity**).

Characterizing multiple DC supplies decoupling capacitors in PCB By anti-resonant frequencies (US7199577).

Electronic trapping implementation in imager with laser driver (US 7196716).

AFFILIATIONS:

Senior Member: Institute of Electrical & Electronic Engineer

Member: Electromagnetic Academy, Institute of System & Components, 1992

Member: Society for Optical Engineers (SPIE)

SELECTED PUBLICATIONS:

M. H. Rahnavard & W. V. T. Rusch, "Surface-curvature-induced microwave shadows," IEEE Trans. On Antennas & Propagation, Vol. AP-30, No. 1, pp. 83-89, 1982.

M. H. Rahnavard & W. V. T. Rusch, "Comparison of the slope of the field at the reflection boundary of an edge-induced & Surface curvature induced shadows," Microwave & Optical Technology Letters, Vol. 5, No. 2, pp. 81-86, 1992.

M. H. Rahnavard & W. V. T. Rusch, "Application of cubic-phase theory to Galindo-William subreflector," Microwave & Optical Technology Letters, Vol. 4, No. 4, pp. 168-172, 1991.

M. H. Rahnavard & W. V. T. Rusch, "Total field evaluation near the edge shadow of idealized inflected surface," Microwave & Optical Technology Letters, Vol. 3, No. 9, pp. 327-333, September 1990.

M. H. Rahnavard & J. Zare-Moodi, "Comparative analysis of spherically symmetric with circular aperture unstable optical resonators," Journal of Electromagnetic Wave & Applications, Vol. 4, pp. 573-594, 1990.

M. H. Rahnavard, R. Mavaddat, & M. Mohajeri, "Moving spot illumination of semiconductor panel," Journal of Applied Physics, Vol. 46, No. 3, pp. 1229-1234, March 1975.

V. Honarvar, M. H. Rahnavard, & H. Abiri, "Computer assisted determination of κ - β in the vane-type coaxial magnetron," Journal of Electromagnetic Wave & applications, Vol. 8, pp. 743-758. June 1994.

A. Bakhtazad & M. H. Rahnavard, "Laser scanning semiconductor panel for visual reconstruction of millimeter wave images," Journal of Electromagnetic Waves & Application, Vol. 5, No. 12, pp. 1329-1349, 1991.

A. Bakhtazad, H. Abiri & M. H. Rahnavard, "Optimum bandpass optical filter synthesis using periodic corrugated waveguides with $\pi/2$ phase shifts," IEEE Journal of Lightwave Technology, Vol. 13. Issue 8, August 1995.

A. Bakhtazad, H. Abiri, & M. H. Rahnavard, "Tapered corrugation for improving characteristics of DFB & DBR laser," Microwave & Optical Technology Letters, Vol. 5, No. 12, pp. 643-647, 1992.

Book

H. Abiri, M. H. Rahnavard, M. Tavakoli, H. Kalhor, & M. Moaveni, Antennas: Analysis & Design, Shiraz University, 1994.

A. Fotoohi, M. T. Mirzania, M. H. Rahnavard, Load Commutation DC/DC converters, Shiraz University, 1994.