

MARQUETTE UNIVERSITY
College of Engineering
Curriculum Vitae

NAME: James E. Richie, Ph.D.

ADDRESS: Department of Electrical and Computer Engineering
Marquette University
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EDUCATION:

Sept. 1985 - May 1988 Ph.D. in Electrical Engineering
University of Pennsylvania
Philadelphia, PA 19104

Sept. 1983 - August 1985 M.S. in Electrical Engineering
University of Pennsylvania
Philadelphia, PA 19104

Sept. 1979 - May 1983 B.S. in Electrical Engineering
Lafayette College
Easton, PA 18042

ACADEMIC EXPERIENCE:

August 1995 - present Associate Professor of Electrical Engineering, Department of Electrical and Computer Engineering, Marquette University, Milwaukee, WI 53233
July 1988 - August 1995 Assistant Professor of Electrical Engineering, Department of Electrical and Computer Engineering, Marquette University Milwaukee, WI 53233

INDUSTRIAL EXPERIENCE:

Summer 1981, 1982 Numeric Control Programmer, Frankel Engineering Company, Reading, PA

CONSULTING EXPERIENCE:

Telephos Associates, Philadelphia, PA, 1986-1987
Expert Systems International, Philadelphia, PA, 1987-1988
Bob LaRocca of Kohn, Savett, Klein, and Graf, Philadelphia, PA, 1988
Foley & Lardner, Milwaukee, WI, 1990
Innovatec Inc., 2000-2001

PROFESSIONAL AFFILIATIONS:

Institute of Electrical and Electronics Engineers (IEEE),

Technical Paper reviewer 1997–2005
IEEE Social Implications of Technology Society, 1986–1989
American Society for Engineering Education, 1988–present
American Association for University Professors, 1989–2001

HONORARY SOCIETIES:

Eta Kappa Nu, 1982 – present
Tau Beta Pi, 1983 – present
Sigma Xi, 1990 – present
Marquette Chapter Vice President: 2005–2007
Marquette Chapter President: 2007–2008
Marquette Chapter Board Member: 2008–2014

AWARDS:

1983 J. J. Ebers Memorial Award, Lehigh Valley Section/IEEE

Seminar: Microwave Engineering (with T. K. Ishii)(grad): Sp95 – Sp98

Seminar: Microwave Engineering (grad): F98 – present.

Department Colloquium: F95 – Sp97, F07/Sp08

Senior Design Sequence: F90/Sp91 (4 students), F93/Sp94(3), F94/Sp95: (3/2), F95/Sp96:(3), F01/Sp02(2 groups,(3/3), F02/Sp03(5), F06/Sp07(2 groups), F07/Sp08, F08/Sp09, F12/Sp13, F13/Sp14, F15/Sp16

SHORT COURSES TAUGHT:

2006.

J. W. Sidabras, J. E. Richie, J. S. Hyde, "Optimization of 100 kHz field modulation slot geometries to achieve uniformity for use in electron paramagnetic resonance," *49th Rocky Mountain Conference on Analytical Chem.*, Breckenridge, Colorado, July 22–26, 2007.

J.Black, J.Richie. "UHF Propagation in a Partially Filled Short Cylindrical Waveguide". *Proc Intl Soc Magn Reson Med 2 9*. Honolulu, Hawaii.

Susan C. Schneider and J. E. Richie, "Development of On-Line Lecture and Preparation Resources for Electrical Engineering laboratory Courses", *Proceedings of the 2 st ASEE Annual Conference and Exposition*, June 15-18, 2014, Indianapolis IN, paper ID #8664.

(D) Refereed International Abstracts

H. N. Kritikos, and J. Richie, "The Application of Group Theory to Arrays," *Proceedings of the National Radio Science Meeting URSI (A)*, 1 pg., Philadelphia PA, June 1986.

J. Richie, "Applications of Group Theory in Scalar Diffraction and Array Theory", *URSI Radio Science Meeting Abstracts (A)*, 1 pg., Chicago IL, July 1992.

C. Lloyd, J. Richie, T. Raidy, X. Feng, "Neural Network Classification of MRS using Prony's Method," poster session at *Conference of Society of Magnetic Resonance in Medicine (SMRM)*, Berlin Germany, August 1992.

K. Ibrahim, and J. Richie, "Locations and Numbers of Multipole Field Expansion," *993 URSI Radio Science Meeting and Abstracts*, pg. 70, Ann Arbor MI, June/July 1993.

J. Sidabras, J. Richie, J. Hyde, "Coupling to Cavity evanescent modes with applications in EPR", The Society of Sigma Xi — Marquette Chapter Poster Session, April 2, 2009.

(G) Theses:

J. Richie, "Optimization of DBS Arrays Using Linear Programming," M.S. Thesis, University of Pennsylvania, Philadelphia, PA, 1985.

J. Richie, "Enhancements to Iterative Nonlinear Synthesis," Ph.D. Dissertation, University of Pennsylvania, Philadelphia, PA, 1988.

(H) Reports:

R. M. Showers, J. Richie, and A. Garg, Electromagnetic Environment on Non-Metallic Ships, Report MSEE-F-87-5, Contract N66604-87-C-0524, NUSC, New London, CT, September 1987.

R. M. Showers, J. Richie, and A. Garg, Electromagnetic Environment on Non-Metallic Ships II, Final Report MSEE-87-6, Prime Contract N60921-87-D-A315, Subcontract SCEEE NSWC/87-B008, NASVSEA 06D4425, October 1987.

R. M. Showers, and J. Richie, Initial Model for Conduit Ground Adapter, Final Report MSEE-87-7, Contract N66604-87-M-D266, NUSC, New London, CT, October 1987.

J. Richie, L. Bell, D.P. Harris, "Space Station Internal Pro

Program, U.S. Army Research Office, Research Triangle Park, NC, October 2001.

UNIVERSITY ACTIVITIES:

(A) Committee Assignments:

EECE Department Associate Chair, 2012–present

EECE Industrial Advisory Board, 2018–present

EECE Program Advisory Committee, 2012–2018

University Academic Senate, 2013–2018, Vice Chair, 2015–2016

University Academic Senate Executive Board, 2015–2016

Search Committee, Vice Provost for Enrollment Management, 2016

University Board of Undergraduate Studies, 2006–2015, Chair 2012–2013

Undergraduate Committee, 1996–1998; 2002–present

Electrical Engineering Curriculum Coordinator, 2009–2012

Francis W. Forest, Ph.D., 1998
Dissertation: "Multipole Placement Rules for the Multiple Multipole Technique."

Matthew Poskozim, M.S., 1999
Thesis: "Antennas Mounted to Small Ground Vehicle Platforms."

Tim Joda, M.S., 2000
Thesis: "Electromagnetic Characteristics from an Aircraft Antenna System in the Presence of Rotating Members"

Neal Seidl, M.S., 2000
Thesis: "Blind Adaptive Linear Multiuser Detection for Multirate CDMA Systems"

Ke Yang, M.S., 2001
Thesis: "Study of Reconfigurable Small Loop Antennas Mounted on Cylinders."

Benjamin Koch, M.S., 2002
Thesis: "Electromagnetic Characteristics of Small Loop Antennas on Rectangular Platforms."

Travis Monke, M.S., 2004
Thesis: "Magnetic Resonance RF Coil Modeling and Simulation".

Julia Klinge, M.S., 2006
Thesis: "Digital Communication Link for MR Surface Coils".

Manuel J. Ferrer Herrera, M.S., 2007
Thesis: "Frequency Re-use for Wireless Medical Telemetry".

Jennifer A. Black, Ph.D., 2009
Dissertation: "UHF Propagation in a Partially Filled Short Cylindrical Waveguide".

Joseph P. Welcenbach, M.S., 2009
Thesis: "The Dependence of the Incident Field on the Method of Moments Solution for a Scattering Problem".

John B. Lienau, M.S., 2009
Thesis: "Characterization of the Electromagnetic Fields Inside a Wire Mesh Cage for Biotelemetry".

Jason W. Sidabras, M.S., 2010
Thesis: "Coupling into Waveguide Evanescent Modes with Applications in Electron Paramagnetic Resonance".

Hermine N. Akouemo Kengmo Kenfack, M.S., 2011
Thesis: "Analysis of an Air-Spaced Patch Antenna Near 1800 MHz".

Logan J. Berens, M.S., 2012
Thesis: "Design, Analysis, and Construction of an Equal Split Wilkinson Power Divider".

John Vitale, M.S., 2012
Thesis "Hybrid Coupler Implemented as a Phase Shifter".

Mattison LeMieux, M.S., 2012
Thesis "Investigating a horizontal helical antenna for use in the phantom monopole configuration"

Phillip Bishop, M.S., 2013
Thesis "Investigating the Possible Sources of Error Using the Method of Moments to Solve a Dielectric Scattering Problem".

Tsenguun Byambadorj, M.S., 2016
Thesis "Optimization of the Bow-Tie Gap Geometry for a Maximum Electric Field Enhancement".

Amanda Jensen, M.S., 2019
Thesis "Power Divider Miniaturization with a Variable Load".

Nichoas Stave, M.S., 2019
Thesis "Analysis of BJT Colpitts Oscillators — Empirical and Mathematical Methods for Predicting Behavior".

Presently directing the research of the following Electrical and Computer Engineering graduate students:

Yeasmin Sultana