Michael D. Proctor, Ph.D., IE

NCSU, 1991

Charter Member, Certified Modeling and Simulation Professional, C00082, 29 Jan 2002; Expiration 31 Oct 2017

Associate Professor; Department of Industrial Engineering & Management Systems (IEMS) Department; College of Engineering and Computer Science (CECS);

Co-Founding member UCF Interdisciplinary Studies Modeling & Simulation (IDS M&S) Program

University of Central Florida

Integrity, Scholarship, Creativity, Community, Excellence

May 26, 2016

Current Position

Associate Professor, Industrial Engineering and Management Systems Department, University of Central Florida, Orlando, Florida, 2001 – present and concurrently…

Associate Professor, Modeling and Simulation Interdisciplinary Program, University of Central Florida, Orlando, Florida.

Previous Academic Positions Held

Assistant Professor, Industrial Engineering and Management Systems, University of Central Florida, Orlando, Florida, Dec 1994 - 2001

Awards:

Research and Creativity Awards

Award Recipient, *UCF Millionaires*, Nov 12, 2015

Award Recipient, *College of Engineering and Computer Science Distinguished Research Lecturer,* UCF 2003

Dissertation Advisor Awards and Nominations:

Nominee, Award for Faculty Excellence in Mentoring Doctoral Students, 2015.

Nominee, Award for Faculty Excellence in Mentoring Doctoral Students, 2013.

Award winner, William R. Jones Outstanding Mentor Award, Florida Education Fund, 2013

Nominee, Award for Faculty Excellence in Mentoring Doctoral Students, 2011.

Nominee, Award for Faculty Excellence in Mentoring Doctoral Students, 2008.

Teaching Awards and Nominations:

Award Winner, University of Central Florida, COLLEGE OF ENGINEERING and COMPUTER SCIENCE (CECS), TEACHING INCENTIVE PLAN (TIP) AWARD, 2014/2015 spanning prior four years.

Award Winner, University of Central Florida, COLLEGE OF ENGINEERING and

COMPUTER SCIENCE (CECS), TEACHING INCENTIVE PLAN (TIP) AWARD, 2006/2007 spanning prior four years.

Award Winner, University of Central Florida, COLLEGE OF ENGINEERING and COMPUTER SCIENCE (CECS), TEACHING INCENTIVE PLAN (TIP) AWARD, 1999/2000 spanning prior four years.

Military Honors and Awards

Meritorious Service Medal, U.S. Army Training and Doctrine Command, Commanding General Frederick M. Frank, 16 August 1994

Awarded Competitive Academic Scholarship for fully-funded Ph.D. program, 1987-1990

Meritorious Service Medal, Secretary of the Army, John H. Marsh, Jr. 1 July 1987

Awarded Competitive Academic Scholarship for fully-funded Master program, 1983-1984

Meritorious Service Medal, Secretary of the Army, John H. Marsh, Jr. 26 May 1983

Meritorious Service Medal, Secretary of the Army, Clifford Alexandria, 18 March 1980

Honor Graduate, Logistic Management Development Course, US Army Logistics Management Center, 28 September 1977

Army Commendation Medal, Secretary of the Army, Martin R. Hoffman, 26 February 1976

Commandants List, Motor Officer Course, U.S. Army Armor School, Ft. Knox, Kentucky, 3 September 1975

Honor Graduate, Chemical, Biological and Radiological Operations and Defensive Measures, 6 June 1975

Education

Ph.D. Industrial Engineering, North Carolina State University 1991

> **Dissertation**: Proctor, Michael D., "The Analytical Effectiveness of Multiattribute Selection Models for MANTECH Projects."

M.S. Operations Research, Florida Institute of Technology 1984

M.S. Computer Science, Monmouth University 1983

B.S. Engineering, United States Military Academy 1972

Publications & Presentations:

Peer-reviewed Journal Articles: (35)

Hackett, Matthew and **Proctor, Michael.** "Three-Dimensional Display Technologies for Anatomical Education: A Literature Review," Journal of Science Education and Technology, pp 1-14, online 19 April 2016, Print ISSN: 1059-0145, DOI 10.1007/s10956-016-9619-3.

Aedo, John and **Proctor, Michael D.** "Assessing Games, Game Features & Meta-Communities on their contribution to Creativity & Valued Outcomes," International Journal of Scientific Engineering and Applied Science (IJSEAS), Vol 2, Issue 3, March 2016: ISSN: 2395-3470.

Hart, John L. and **Proctor, Michael D.,** "Framework and Assessment of Conversational Virtual Humans as Role-players in Simulated Social Encounters with People," Journal of Advance Research in Computer Science & Engineering, Vol 2, Issue 2, February 2016.

Vazques, Luis and **Proctor, Michael,** "Learning Opportunities and Challenges of Sensor-Enabled Intelligent Tutoring Systems on Mobile Computing Devices," Journal of Advance Research in Computer Science & Engineering, Vol 2, Issue 2, February 2016.

Proctor, Michael D., Shageer, Buder M. and Davis, Matthew T., "Considering Modeling and Simulation of DOD Response to Accidental Nuclear Disaster," Journal Defense Management, Volume 5, Issue 2, November 2015: DOI:10.4172/2167-0374.1000134

Calloway, Richard J., **Proctor, Michael D.,** Boyer Victor M. and Napier, Samantha, "A Computational Study of dsDNA Pairs and Vibrational Resonance in Separating Water," *Systems and Synthetic Biology,* Volume 8, Issue 4, pp 329-335, December 2014. DOI:10.1007/s11693-014-9157-3.

Proctor, Michael D. LTC and Campbell-Wynn, Lillian, "Effectiveness, Usability, and Acceptability of Haptic-Enabled Virtual Reality and Mannequin Modality Simulators for Surgical Cricothyroidotomy," *Military Medicine*, Vol. 179, No. 3, pp. 260-264, Mar 2014. DOI: http://dx.doi.org/10.7205/MILMED-D-13-00365

Graniela, Benito and **Proctor, Michael D.,** ""A Network Centric Terrain Database Re-Generation Architecture," *Journal of Defense Modeling and Simulation.* Volume 10, Number 3. 247-261, July 2013, DOI: 10.1177/1548512912444178.

Proctor, Michael D., and Marks, Yaela. "A Survey of Exemplar Teachers' Perceptions, Use, and Access of Computer-Based Games and Technology for Classroom Instruction," *Computers and Education,* Vol. 62, 171-180, March, 2013. http://dx.doi.org/10.1016/j.compedu.2012.10.022

Sottilaire, Robert A. and **Proctor, Michael,** "Passively classifying student mood and Performance within intelligent tutors," *Educational Technology & Society,* Vol. 15, No. 2, 101-114, 2012.

Guise, Brian and **Proctor, Michael D.,** "Expectations for presentation of Engineering and Scientific mobile platform Information within a virtual globe Geographic Information Systems," *Journal of Geographic Information Systems,* Vol 3, No. 2, pages 120-127, 2011.

Covelli, Javier, Rolland, J., **Proctor, M.,** Kincaid, J. Peter and P. A. Hancock, "Field of View Effects on Pilot Performance in Flight," *International Journal of Aviation Psychology*, Volume 20, Issue 2, pages 197 – 219, April 2010 ,

Sotomayor, Teresita **and Proctor, Michael D., "**Assessing Combat Medic Knowledge and Transfer Effects resulting from Alternative Training Treatments ", *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology,* Volume 6, Number 3, pp. 121-134, 2009.

Proctor, Michael D. "Special Issue: Modeling and Simulation for Training Applications in Counterinsurgency/Irregular Warfare (COIN)", *The Journal of Defense Modeling & Simulation* 6(3):111-112, October 2009

Lanman, Jeremy and **Proctor, Michael D.,** "Governance of Data Initialization for Service Oriented Architecture-based Military Simulation and Command & Control Federations," *The Journal for Defense Modeling and Simulation,* Volume 6, Number 1, pp. 5-16, 2009

Proctor, Michael D., Lucario, T. and Wiley, C., **"**Are officers more reticent of games for serious training than enlisted soldiers?" *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology,* Volume 5, Number 3, pp. 178-195, July 2008.

Proctor, Michael D., Cardona, G. and Hollander, C., **"**Using Simulation to investigate a Non-Anthropomorphic Framework for Communications within a Human-Agent War-Fighting Team", *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology,* Volume 5, Number 2, pp. 121-137, April 2008.

Rami, Nabil and **Proctor, Michael D.**, "Real Time Physically-Based Modeling and Simulation of Cratering and Fragmentation of Terrain," *Simulation,* Vol. 83, No. 12: pp. 830 - 841, Dec 2007.

Proctor, Michael D., Bauer, M. and Lucario, T., "Helicopter Flight Training through Serious Aviation Gaming," *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology,* Volume 4, Number 3, pp. 405-422, July 2007.

Proctor, Michael D. and Woodman, Michael, "Training 'Shoot House' Tactics using a Game," *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology*, Volume 4, Number 1, pp. 55 -63, January 2007.

Arif, M., Kulonda, D., Jones, J., and **Proctor, Michael,** "Enterprise information systems: technology first or process first?" *Business Process Management Journal,* Vol. 11, no 1, pp. 5-21, 2005.

Proctor, Michael D. and Gerber, William, "Acoustic Considerations for Land Combat, Entity-based Simulation," *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology*, Volume 1 Number 4, pp. 43 – 57, October 2004.

Arif, M., Kulonda, Dennis, **Proctor, Michael D.** & Williams, K.**,** "Before You Invest: An Illustrated Framework To Compare Conceptual Designs For An Enterprise Information System," *Information, Knowledge, System Management,* Vol. 4, No 2, pp.119–135 2004.

Proctor, Michael D. and Gerber, William, "LOS Attributes for a Generalized Simulation API," *The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology,* Vol. 1, No. 1, pp. 43 – 57, Jan. 2004.

Proctor, Michael D., Panko, Michael and Donovan, Sharlene, **"**Considerations for Training Team Situation Awareness and Task Performance through PC-Gamer Simulated Multi-Ship Helicopter Operations," *International Journal of Aviation Psychology*, Vol. 14, Num. 2, pp. 191 -205, 2004,

Proctor, Michael D., Posey, Amy and Kulonda, D., **"**Why the T in SMART: A Constructive Synergy," *Acquisition Review Quarterly*, Vol 10 No 3, pp 284-299, S 2003.

Proctor, Michael D. and Justin C. Gubler, "Creating the Potential for Organizational Learning," *Performance Improvement Quarterly*, Vol. 14, No. 3, pp. 9-19, 2001.

Proctor, Michael D. and Gregory S. Creech, "Object-oriented Modeling of Patients in a Medical Federation," *IEEE Transaction on Information Technology in Biomedicine*, Volume 5, Number 3, pp. 244-247, September 2001.

Proctor, Michael D., Lartigue, L. and Martin, E., "Exploring Threat Intent Measures for System Evaluation," *Military Operations Research*, Vol. 6, No. 1, pp. 31-42, 2001.

Proctor, Michael D. and John T. Janiszewski, "Training Organizational Decision Makers on Risk-Taking," *Journal of Interactive Instruction Development*, Vol. 12, No. 4, pp. 18-24, Spring 2000.

Proctor, Michael D. and Connors, P., "Data Representation for Sensor Models within a Synthetic Natural Environment (SEDRIS)," *Transactions of the Society for Computer Simulation International*, Vol. 17, No. 2, pp. 46-53, June 2000.

Proctor, Michael D. and Lipinski, M., "Technical Performance Measures and Distributed-Simulation Training Systems," *Acquisition Review Quarterly*, Vol. 7, No. 1, pp. 19-32, Winter 2000.

Proctor, Michael and Rodney L. Lusher, "Exploring an Emerging Organizational Decision Maker Trainer," *Journal of Interactive Instruction Development*, Vol. 11, Number 3, pp. 3-13, Winter 1999.

Proctor, Michael D. and Paulo, Gene, "Modeling in Support of Operational Testing," *Mathematical and Computer Modelling*, Vol. 23, No. 1 / 2, pp. 9-14, January 1996

Proctor, Michael D. and Canada, John R., "Past and Present Methods of Manufacturing Investment Evaluation: A Review of the Empirical and Theoretical Literature," *The Engineering Economist*, Vol. 38, No 1, pp. 45-58, Fall 1992

Books Published

Proctor, Michael D. (Editor), *Web-based Technical Reference on Simulation Interoperability*, STRICOM, 1999. See http://132.170.202.91/proctor_ie/Interoperability%20Text/Text%20Outline.htm.

Chapter Written

Proctor, Michael D., "Simulation Paradigms," Chapter One in *Web-based Technical Reference on Simulation Interoperability*, STRICOM, 1999. See http://132.170.202.91/proctor_ie/Interoperability%20Text/Chapter1/Chapter%201%20Final.htm

Refereed Proceedings Papers & Conference Presentations

Mykoniatis, Konstantinos; Angelopoulou, Anastasia; **Proctor, Michael D.**, Karwowski, Waldemar. "Virtual Humans for Interpersonal and Communication Skills' Training in Crime Investigations," *HCI International 2014*

Barry, John and **Proctor, M**. "Limitations of Micro and Macro Solutions to the Simulation Interoperability Challenge: An EASE Case Study," *SISO Spring Simulation Interoperability Workshop*, 2013

Ludwig, Jeremy, Jensen, R., **Proctor, M.,** Patrick, J. and Wong, W. "Generating Adaptive Behaviors for Simulation-based Training," *Association for the Advancement of Artificial Intelligence, Fall Symposium*, 2008

Randy Jensen, Ludwig, J., **Proctor, M.,** Patrick, J. and Wong, W. "Adaptive Behavior Models for Asymmetric Adversaries," *Interservice/Industry Training, Simulation and Education Conference*, Dec 2008.

Boerjan, Robert and **Proctor, Michael D.,** "What *is being said about the Simulation Support Plan Process," 2003 SMART Conference, Dearborn Michigan, September 8-11, 2003*, Army Modeling and Simulation Office, Washington, DC.

Creech, G. and **Proctor, Michael D.**, "Skinning the Body: Human FOM Development," *2003 European Simulation Interoperability Workshop*, June 2003.

Milks, W. and **Proctor, Michael D.**, "Augmenting Model Validation With Simulation Graph Models," *Interservice/Industry Training, Simulation and Education Conference 2002*, Dec 2002.

Milks, W. and **Proctor, Michael D.**, "Developing Multi-resolution Models using Product Line Architecture Techniques," *Summer Computer Simulation Conference 2002.*

Proctor, Michael D., Curley, John and Williams, Wilburn C Jr, "Interoperable Training through a Simulation Game," *2002 European Simulation Interoperability Workshop*, June 2002.

Proctor, Michael D. and Kolasheski, John S., "Design of an Observation-based Autonomous Re-planning Capability in a Synthetic Unit," *Interservice/Industry Training, Simulation and Education Conference 2000*, Nov/Dec 2000.

Proctor, Michael D. and Lipinski, Michael J., "Measuring the Contribution of Distributed Simulation to Unit Training," *Interservice/Industry Training, Simulation and Education Conference 1999*, Dec 1999.

Proctor, Michael D., Creech, G. and Pettitt, B., "Synthetic Representation of Patient Injuries in a Medical Training Federation," *67th Military Operations Research Society Symposium*, June 1999.

Creech, G. and **Proctor, Michael D.,** "Research into the Enhancement of Medical Training Scenarios Through Simulation Integration," *Simulation Interoperability Workshop*, March 1999.

Proctor, Michael D. and Gubler, J., "Military Simulation Worlds and Organizational Learning," *'98*, Dec 1998.

Proctor, Michael D. and Gubler, J., "Considering Organizational Learning at Military Microworlds," *66th Military Operations Research Society Symposium*, June 1998.

Proctor, Michael D. and Lusher, R., "Information Filtering based on CCIRs," 66th Military *Operations Research Society Symposium*, June 1998.

Lartigue, L., Martin, E. and **Proctor, Michael D**., "Representing Intent in the Simulation of Land Warfare," *66th Military Operations Research Society Symposium*, June 1998.

Paulo, E.P. and **Proctor, Michael D.**, "Model-Test-Model Research Using Janus(A)", *21st Quadripartite Working Group on Army Operational Research,* Jan-Feb 1994

Pate, M.C., **Proctor, Michael D.** and Wertin, A.B., "Integrating Janus and BDS-D to Support the A2ATD," *32nd U.S. Army Operations Research Symposium*, November 1993.

Pate, C.A. and **Proctor, Michael D**., "Javelin: A Case Study in Model-Test-Model," *32nd U.S. Army Operations Research Symposium*, November 1993.

Paulo, E.P. and **Proctor, Michael D.**, "Observations on Model-Test-Model (MTM) Using Janus(A)", *61st Military Operations Research Symposium,* June 1993.

Proctor, Michael D. and Canada, J.R., "Exploring the Analytical Effectiveness of Some Multiattribute Selection Models for Process-Oriented Research," *1992 Decision Sciences Institute Proceedings,* Nov 1992

Proctor, Michael D., "1 Meter Terrain Visualization," 1992 *Lawrence Livermore National Laboratory High Resolution Conflict Simulation Conference*, Nov 1992

Proctor, Michael D., "Analytical Effectiveness of MANTECH Selection Process", *30th U.S. Army Operations Research Symposium,* November 1991

Invited Presentations

Proctor, Michael D., Davis, M., Shageer, B. & Lukas, E., "Simulating Nuclear Disaster Emergency Planning, Response & Mitigation using Presagis Suite 14", *Interservice/Industry Training, Simulation and Education Conference & Exhibit*, Dec 1 & 2, 2015

Proctor, Michael D., "Partnering With Presagis* through the Lockheed Martin Synthetic Environments Learning Laboratory To Advance Student Education since 1998", *Interservice/Industry Training, Simulation and Education Conference & Exhibit*, Dec 3, 2014

Proctor, Michael D., "Partnering with Presagis in the Classroom for Student Education", *Interservice/Industry Training, Simulation and Education Conference & Exhibit*, Dec 2, 2013

Proctor, Michael D., "Simulation-based Acquisition Management" Feb 5 2009; "User Interface Design," Feb 5 2009; System Reconfigurability, Parameter Tuning and Model Customization," Feb 5 2009 presented to Singapore Defence Science and Technology Agency (February 2 – 6) as Director of the Modeling and Simulation Advanced Technical Course that I was invited to internationally compete for and I won. (Please see more details below in funding section).

Proctor, Michael D., "Gaming Technology and Interoperability," Training Forum Guest Panelist: Simulation Interoperability Standards Organization, September 21, 2004**.**

Proctor, Michael D., "Consideration of training and decision support applications," Smi Defence Conferences, Oct. 3, 2001 (Cancelled due to 9-11)**.**

Proctor, Michael D., "Interactive Simulation," National Center for Simulation UHS Presentation, April 29, 1999**.**

Proctor, Michael D., "Interactive Simulation," IIE Southeastern Regional University Conference, Feb 20 - 22, 1998**.**

Proctor, Michael D., "Janus Battlefield Distributed Simulation-Developmental", *Senior Analyst Review,* March 1994

Proctor, Michael D., Walter, J. and Warren, P., "Janus 3D*"*, *TRADOC Senior Leader's Conference*, July 1992

Proctor, Michael D., "Janus 3D Visualization", *60th Military Operations Research Symposium,* June 1992

Technical Research Reports:

Proctor, Michael D., Research Director**,** "Single Exercise Analysis Station," by Fernan & Dryer, TRADOC Analysis Center, Research Activities, Monterey, CA. July 1994

Proctor, Michael D., Research Director**,** "Janus Auditory Sensor Algorithm Development," by Pate, C, TRADOC Analysis Center, Research Activities, Monterey, May 1994.

Proctor, Michael D., Research Director, "1 Meter Line-of Sight," by Paulo, TRADOC Analysis Center, Research Activities, Monterey, April 1994

Proctor, Michael D., Research Director, "Janus Three-Dimensional View and

Distributed Interactive Simulation Research," by Pate and Wertin, TRADOC Analysis Center, Research Activities, Monterey, February 1994

Proctor, Michael D., Research Director, "Battle Enhanced Analysis Methodologies," by Fernan & Dryer, TRADOC Analysis Center, Research Activities, Monterey, January 1994

Proctor, Michael D., Research Director, "Model-Test-Model Research," by Paulo, Proctor, Pate M., Pate C. & Bundy, TRADOC Analysis Center, Research Activities, Monterey, February 1993

Proctor, Michael D., Research Director, "Janus Human Factors Research," by Hoffman, TRADOC Analysis Command – Monterey, May 1992

Proctor, Michael D., Research Director, "Comparison of the Janus(A) Combat Model to National Training Center (NTC) Battle Data," TRADOC Analysis Command – Monterey, June 1991

Proctor, Michael D. and Harmon, "Reliability Estimates for the Ram Air Parachute System (RAPS)," USAABNSOTB, June 1987

Grants, Awards and Funded Research: Summary: Over $7.1 million in competitively funded research grants awarded.

Funded Research Grants

Principal Investigator, "ENG - UCF Foundation Presagis Software Donation," $2,647,402, UCF Foundation, Inc, July 1 2014 – June 30 2016

Principal Investigator, "Feasibility of rehearsal and assessment of manned and robotic celestial body missions," $31,500, NASA Florida Space Grant Consortium, August 1, 2009 - May 14, 2010

Principal Investigator: "Modeling & Simulation Advanced Technical Course," $109,566.00, Singapore DSTA, Dec 29, 2008 — Feb 9, 2009

Principal Investigator: "M&S in the Acquisition Life Cycle, Parts One and Two," $45,697, George Mason University, March 2008 – Dec 2008

Principal Investigator: "OSD – 005 STTR Asymmetric Agents with Stottler Henke," $30,000, September 2007 – June 2008,

Principal Investigator: "FHTC: OSD – 005 STTR Asymmetric Agents with Stottler Henke," $15,000 plus UCF/I4, $15,000, September 2007 – June 2008,

Co-Principal Investigator "Educating the Acquisition Workforce in Modeling and Simulation," Naval Postgraduate School, $14,613, August 2007 – November 2007, with Peter Kincaid of IST.

Principal Investigator: "Identification and Suitability of a Non-anthropomorphic Metalanguage Framework, US Army Research Laboratory, $49,692, August 2006 – July 2007.

Principal Investigator "Compendium of Algorithms," STRICOM, $90,000, Sept 2002 – August 2003.

Principal Investigator "Acoustic Synthetic Environment and Agent Response,"

STRICOM, $70,000, May 2002 – April 2003.

Principal Investigator "Simulation Based Acquisition Research," STRICOM, $89,638, March- September 2002, Co-PI, Dr. Dennis Kulonda

Below are Research Grants on Vitae at time of promotion to Associate Professor:

Senior Researcher in support of IST, "Objective Infantry Combat Weapon (OICW) Concept Formulation Plan," STRICOM, $149,000, AY2001-2003, ($15,042 Reimbursed Contribution)

Principal Investigator, "Synthetic Environments Exploratory and Developmental Research," STRICOM, $137,500, plus UCF, $34,202, AY2000-2002.

Principal Investigator "Off-the-Shelf Joint Strike Fighter Re-configurable Simulation," Lockheed-Martin, $22,350, AY 1999-2000.

Principal Investigator "Simulation & Analysis Software Development," Lockheed Martin, $31,702, AY1998 – 1999.

Principal Investigator "Web Based Reference on Military Wargaming Simulation Technology," STRICOM, $50,000, AY1998-1999,

Senior Researcher in support of IST: "Combat Trauma Patient Simulator Phase II," STRICOM, $1,689,047, AY1998 - 1999, Associate Investigator to Institute for Simulation and Training for Interoperability Assessment of the Operational Requirements-based Casualty Assessment (ORCA) model, ($8,000 Reimbursed contribution)

Principal Investigator: "Studies in Interactive Simulation and Training Systems", Dr. Proctor's UCF Foundation Account, $32,000, AY1997 - continuing, .

Principal Investigator, "Issues of Competitiveness Computer based Training System," $32,245.27, AY1996 - 1997, Co-PI William Thompson.

Competitive grants won and Funded at TRAC Monterey Research Activities

Janus-Battlefield Distributed Simulation - Developmental (Janus-BDS-D), U.S. Army Simulation, Training and Instrumentation Command (STRICOM) & Program Manager, Line of Sight Anti-Tank (LOSAT), $1,604,000; FY 1993-1994

Janus Fast Movers, U.S. Army Model Improvement and Study Management Agency (MISMA) and Training and Doctrine Analysis Center (TRAC), $198,892; FY 1993-1994

Improved Target Acquisition Algorithm, U.S. Army MISMA & TRAC, $65,000; FY 1994

Environmental Effects Distributed Interactive Simulation (E2DIS), Naval Air Systems Command, $65,000; FY 1994

Distributed Interactive Simulation(DIS) Interface, TRAC-Monterey, $35,000; FY 1994

Advance Warfighting Demonstration, TRAC - White Sands Missile Range, $6,000; FY 1994

Janus Simnet Interface, TRAC, $137,000; FY 1993

3D High Resolution, TRAC, $111,654; FY 1993

3D Terrain, TRAC Monterey, $78,750; FY 1993 & 1992

1 Meter 3D Terrain Visualization, Operational Test and Evaluation Command, $125,315.44; FY 1993

Single Exercise Analysis Station, Combined Arms Command, $219,228.23; FY 1993, 1992 & 1991

Multimedia Integration, MISMA, $50,000; FY 1993

Model-Test-Model High Resolution, TRAC-Monterey, $3,500; FY 1993

Battle Enhanced Analysis Methodologies, MISMA & TRAC Monterey, $146,000; FY 1992 & 1991

Pegasus, TEXCOM Experimentation Center(TEC), $350,000; FY 1992

1M Line of Sight, MISMA, $127,720; FY 1992

3D Terrain Visualization, MISMA, $48,000; FY 1992

Janus DIS, TRAC, $48,000; FY 1992

3D Terrain Commander's View, MISMA & TRAC, $43,294; FY 1991

Model Test Model, TEC & TRADOC Dep C of Staff, $61,000; FY 1991

Janus Sound Cueing, TRADOC Dep C of Staff, $45,000; FY 1991

Janus Human Factors, MISMA, $31,091.47; FY 1991

Future Technology, U.S. Army Laboratory Command, $35,000; FY 1991

Graduate Student Dissertation and Thesis Advisement

Dissertation Chair for Graduated Ph.D. (17)

Title: "The Relationship Between DNA's Physical Properties And The DNA Molecule's Harmonic Signature, And Related Motion In Water — A Computational Investigation," Candidate: **Victor Martin Boyer**, Fall 2015, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: " Understanding the Capabilities and Limitations of Advanced Interactive M&S: A Cricothyroidotomy Simulation Case Study," Candidate: **Lillian Campbell-Wynn**, Summer 2013, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Agent Synchronized Continuous Partial Regeneration Architecture within the SE Generation Pipeline," Candidate: **Benito Graniela**, Fall 2011, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: " Homologous Pairing through DNA driven Harmonics – A Simulation Investigation," Candidate: **Richard J. Calloway**, Fall 2011, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: " Analysis of the Relationship between the Level of Educational Computer Game Use and Milken Exemplar Teacher Instructional Strategies," Candidate: **Yaela Dahan Marks**, Summer 2011,. Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "A Governance Reference Model For Service-Oriented Architecture-Based Common Data Initialization: A Case Study On Military Simulation Federation Systems,"

Candidate: **Jeremy Thomas Lanman.** Summer 2010, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Toward A Real-Time Celestial Body Information System," Candidate: **Brian Mitchell Guise.** Summer 2010, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: " Using student mood and task performance to train classifier algorithms to select effective coaching strategies within Intelligent Tutoring Systems (ITS)," Candidate: **Robert A. Sottilare.** Spring 2009, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: " DoD Acquisition Workforce Education: A SBA Education Case Study," Candidate: **Rick Davenport.** Spring 2009, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Evaluating Tactical Combat Casualty Care Training Treatments Effects On Combat Medic Trainees In Light Of Select Human Descriptive Characteristics," Graduate: **Teresita M. Sotomayor,** Fall 2008, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: " A Common Component-Based Software Architecture for Military and Commercial PC-Based Virtual Simulation," Graduate: **Joshua Lewis**, Summer 2006, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Cognitive Training Transfer using a Personal Computer-based Game: A Close Quarters Battle Case Study," Graduate: **Michael D. Woodman**, Spring 2006, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Evaluating The Effectiveness Of Training System Approaches For Highly Complex Flight Training," Graduate: **Maria C. Bauer**, Fall 2005, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "A Taxonomy of Didactic Features and an Evaluation Framework for Team-oriented Simulation-based Training Systems," Graduate: **Robert Wittman**, Spring 2003, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Realization of Multi-resolution Modeling Through Domain Engineering," Graduate: **Wesley Milks,** Fall 2001, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: " Conceptual Modeling of Applied Research Projects," Graduate: **Gregory Schow**, Summer 2001, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Physically-Based Crater Formation And Fragmentation Due To Terrain Surface Explosions For Real-Time Simulators," Graduate: **Nabil Rami**, Spring 2001, Department of Industrial Engineering and Management Systems, University of Central Florida

Completed Master's Thesis: Chair (35)

Title: "Analysis Of Alternative Convoy Route Patrol Procedures For Countering Improvised Explosive Devices Deployed During Asymmetric Warfare In Afghanistan-Like Rural Settings," Graduate: **Larry D. Baca**, Spring 2016, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Use Of Integrated Training Environments To Sustain Army Warfighting Proficiency In An Era Of Constrained Resources: Understanding What's Required To Win The First Battle Of The Next Conflict," Graduate: **Edward B. Lerz II**, Spring 2013, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Limitations Of Micro And Macro Solutions To The Simulation Interoperability Challenge: An Ease Case Study," Graduate: **John M. Barry, JR.**, Spring 2013, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: " Development of a Modeling and Simulation Training Needs Model for Selected Defense Acquisition Workforce Communities Major: Interactive Simulation and Training Systems," Graduate: **Lik Chun Peh (Singapore Defence Force)**, Spring 2008, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Identification and suitability of a non-anthropomorphic meta-language framework in military applications," Graduate: **Gil Cardona**, Summer 2007, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Assessment Of The Contribution Of Game-Based Simulation In The Advancement Of Individual Soldier Intelligence Gathering Skills," Graduate: **Carlos Wiley**, Summer 2007, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Modeling the influence of personality preferences on the selection of instructional strategies in intelligent tutoring systems," Graduate: **Robert A. Sottilare**, Fall 2006, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "The use of PC based Simulation systems in the training of Army Infantry Officers – An evaluation of the Rapid Decision Trainer," Graduate: **Thomas Lucario**, Spring 2006, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Applying An Information System Framework To The Army's Simulation Support Plan Process," Graduate**: Robert Boerjan**, Spring 2003, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Interactive Simulation Training System for the Objective Individual Combat Weapon," Graduate**: Thomas G. Harris**, Spring 2002, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: " Exploring a PC Based, Aviation Micro Trainer as Augmentation for the AVCATT-A," Graduate: **Michael E. Panko**, Spring 2002, Modeling and Simulation Inter-Disciplinary Program, University of Central Florida

Title: " The Virtual Sandtable: An Evaluation of a Commercial-Off-the-Shelf Wargame to Train Tactical Concepts at the Company and Platoon Level," Graduate: **John F. Curley**, Spring 2002, Modeling and Simulation Inter-Disciplinary Program, University of Central Florida

Title: "Simulation Based Acquisition, Capable and Reusable Simulations and Models," Graduate: **Amy M. Posey-Macalintal**, Spring 2002, Modeling and Simulation Inter-Disciplinary Program, University of Central Florida

Title: "A Methodology for Simulation and Modeling of C4I Simulation," Graduate: **William Rogers Merritt,** Summer 2001, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The Middleware/Gateway Approaches To Interoperability, A Case Study," Graduate: **Andre Huthmann (German Army)**, Spring 2001, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The Exploitation of Emerging Game Console Systems for Utilization as Low-End Simulation Platforms," Graduate: **Scott Sandback**, Summer 2001, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "A Framework for Simulation Support of the MDMP," Graduate**: Andrew F. Farnsler**, Spring 2001, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Examining Low-cost Simulation and Situational Awareness Assessment in Army Aviation Applications," Graduate: **Sharlene J. Donovan**, Summer 2000, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "An Operational Model for Finite State Machine Replanning in ModSAF," Graduate: **John S. Kolasheski,** Spring 2000, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "A Conceptual Model of PC-based Simulation in Support of Military Training," Graduate: **Raymond Kent Compton**, Spring 2000, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The S2 Automated Agent (S2A2): A Training Aid for Commanders and Intelligence Officers," Graduate: **John T. Janiszewski**: Summer 1999, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The Development of the Sensor Data Model for the Synthetic Environment Data Representation Interchange Specification," Graduate: **Patrick Connors, II:** Spring 1999, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Increasing the Resolution of Simulated Combat Trauma Injuries in a High Level Architecture (HLA) Environment," Graduate: **Gregory Creech**: Spring 1999, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Evaluation Of Land Reconnaissance Tactical Behaviors Early In The Systems Development Of A New Weapon System Using Constructive Simulation ," Graduate: **Wilburn C Williams Jr**: Spring 1999, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Representation of Advanced Air to Ground Missiles in a Constructive Simulation,"

Graduate**: James Brashear:** Spring 1999, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Organizational Learning in a Novel Environment," Graduate: **Wayne Stillwell**: Summer 1998, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Virtual Simulation: Effectiveness for the Training of Teamwork," Graduate: **Michael Lipinski:** Spring 1998, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Extending the Evaluation of Tactical Reconnaissance in simulation through the Demonstration of Intent," Graduate**: Louis J. Lartigue**: Spring 1998, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "A Cognitive Task Model of a Tactical Expert for Unit Performance Diagnosis within the Close Combat Tactical Trainer Simulation System," Graduate: **John Martin McCarthy**: Spring 1997, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "A Methodology to Determine Factors for Selecting Training Scenarios in Virtual and Constructive Simulations," Graduate: **Brian P. Bedell**: Spring 1997, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Unit Simulation Training System After Action Reviews (AAR): A Novel Approach to Achieve Effectiveness," Graduate: **Justin Chase Gubler**: Spring 1997, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The Simulation Information Filtering Tool," Graduate**: Rodney L. Lusher**: Spring 1997, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Modeling and Simulation for Air Defense Force Allocation Planning," Graduate: **John J. Nelson**: Spring 1997, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Comparison of Fixed Wing Aircraft Algorithms for Janus," Graduate: **Charles L. Daniels**: September 1994, Department of Operations Research, Naval Postgraduate School

Title: "Javelin: A Case Study in Model-Test-Model," Graduate: **Charles Abbott Pate**: December 1992, Department of Operations Research, Naval Postgraduate School

Completed Doctor of Philosophy: Dissertation Associate Advisor

Title: "Examining Emotional Responses To Effective Versus Ineffective Virtual Buddies", **Kathleen Michele Ingraham,** Summer 2014, College of Education and Human Performance, University of Central Florida

Title: "Complementary Layered Learning", **Sean C. Mondesire,** Spring 2014 Department of Electrical Engineering and Computer Science, College of Engineering and Computer Science, University of Central Florida

Title: " Modeling Learner Mood in Realtime through Biosensors for Intelligent Tutoring Improvements", **Keith Brawner,** Summer 2013, Department of Electrical Engineering and Computer Science, College of Engineering and Computer Science,

University of Central Florida

Title: "Gpu Ray Traced Rendering And Image Fusion Based Visualizationof Urban Terrain For Enhanced Situation Awareness," **Ling Ling Sik,** Spring 2013, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "The Effect Of Curriculum Organization On The Acquisition Of Abstract Declarative Knowledge On Computer Based Instructions," **Saleh Al-Foraih,** Spring 2013, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: " A Contextual Approach to Learning Collaborative Behavior via Observation," **Cynthia L. Johnson,** Spring 2011, School of Electrical Engineering and Computer Science, University of Central Florida

Title: "A Framework for Efficient Data Distribution in Peer-to-Peer Networks," **Darshan Purandare**, Spring 2008, School of Electrical Engineering and Computer Science, University of Central Florida

Title: "Improving Airline Schedule Reliability Using A Strategic Multi-Objective Runway Slot Assignment Search Heuristic." **Florian B. Hafner**, Spring 2008, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Field Of View Effects On Reflexive Motor Response in Flight Simulation," **Jeff Covelli,** Spring 2008, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Resource-Constraint and Scalable Data Distribution Management for High Level Architecture," **Pankaj Gupta**, Fall 2007, School of Electrical Engineering and Computer Science, University of Central Florida

Title: "Cognitive Learning from Computer-based Information Systems by Incorporating Knowledge Construction Interventions," **Wajdi A. Wazzan**, Summer 2007, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Interchanging Discrete-Event Simulation Process-Interaction Models using the Web Ontology Language – OWL," **Lee W. Lacy**, Fall 2006, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Session-Based Intrusion Detection System to Map Anomalous Network Traffic," **Bruce D. Caulkins**, Fall 2005, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Effects of Content Augmentation Strategies in an Instructional Virtual Environment," **Roger M. Hamilton**, Fall 2005, Interdisciplinary Studies Program in Modeling and Simulation, University of Central Florida

Title: "Assessing the Impact of University Technology Incubator Practices on Client Performance," **Thomas O'Neal**, Spring 2005, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "A Framework for A Successful Implementation of ISO 9000:2000 Quality Management System in Developing Countries," **Mohammad Asiri**, Fall 2004, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Evolving Models from Observed Human Performance," **Hans Fernlund**, Spring 2004, School of Electrical Engineering and Computer Science, University of Central

Florida

Title: "Soar CGFs That Learn Inductively: A Hybrid Autonomous Approach Based On A Modified Naive Bayes Learning Algorithm," **Chien Wei Chia**, Summer 2003, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Application of Intelligent Methods for Improved Testing and Evaluation of Military Simulation Software," **Robert M. Patton**, Fall 2002, School of Electrical Engineering and Computer Science, University of Central Florida

Title: "The Design of an Enterprise Information System: A Document Approach," **Mohammed Arif,** Spring 2002, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Real-Time Synchronization of Behavioral Models with Human Performance in a Simulation," **Bill Gerber**, Spring 2001, School of Electrical Engineering and Computer Science, University of Central Florida

Title: "An Experimental Testbed for Assessing Consistency in the Distributed Simulation of Spatio-Temporal Environments," **Guru Prasad**, Summer 1999, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "A Comparison of Classification Algorithms for Use in Dynamic-Adaptive (D-A) Information Systems," **Roger E. Brill**: Summer 1998, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The Display Configuration, Perspective, and Intent (CPI) Matrix: Development of a Framework and Methodology for Advancing the Design of Graphical Displays," **David A. Dryer**: Fall 1996, Department of Industrial Engineering and Management Systems, University of Central Florida

Completed Masters: Thesis Associate Advisor

Title: "The Development of a Dismounted Infantry Embedded Trainer with an Intelligent Tutor System," **Jason B. Sims**: Spring 2006, Interdisciplinary Department of Modeling and Simulation, University of Central Florida

Title: "Balanced Scorecard and Florida Incubators," **Julio A. Lujambio**: Summer 2004, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The Effect of Practice on Visual Change Detection in Computer Displays," **John L. Neumann**: Spring 2004, Interdisciplinary Graduate Program in Modeling and Simulation, University of Central Florida

Title: "Application of Lessons Learned Into Legacy Systems," **Jennifer Luce**: Summer 2000, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The Effect of Lessons Learned on Organizational Learning and Performance," **Robert Maurice Gaucher**: Fall 1998, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "A Software Application with Novel Approaches for Modeling Network Systems and Computing Performance Measures," **Steve Bruce**: Summer 1998, Department of Electrical and Computer Engineering, University of Central Florida

Title: "How Does A Traditionally Managed Organization Successfully Apply Strategic

Management," **Frank Douglas Sturek**: Summer 1998, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "Interim Experiment Design Model for Verification and Validation of Training Simulators," **Christopher M. Hill**: Spring 1996, Department of Industrial Engineering and Management Systems, University of Central Florida

Title: "The Avenger and SGT York: An Examination of Two Air Defense Systems Non-Developmental Item Acquisition Program," **Russell A. Hinds**: March 1995, Department of Administrative Science, Naval Postgraduate School

Title: "The Impact of Integrating Modeling and Simulation into Army Operational Test and Evaluation," **Brad R. Naegle**: September 1994, Department of Administrative Science, Naval Postgraduate School

Title: "The Impact of Modeling and Simulation on the Army Acquisition Process," **Thomas W. Crouch**: March 1994, Department of Administrative Science, Naval Postgraduate School

Title: "A Historical Summary of the Armored Systems Modernization Program and the Lessons Learned from Its Interaction with the Acquisition Environment," **Ross Dennis Boelke:** June 1992, Department of Administrative Science, Naval Postgraduate School

Completed BS with Honors: Theses Associate Advisor

Title: "Decomposing Large Markov Chains for Statistical Usage Testing," **Chirag Pandya**: Fall 2000, School of Electrical Engineering and Computer Science, University of Central Florida

Classroom Teaching:

Graduate level Instructor

Interactive Simulation (EIN5255), UCF

I annually coordinate partnerships with Presagis to provide software worth tens of thousands of dollars for student use in the classroom.

Real-time Agents (EIN6645), UCF

I annually coordinate partnerships with MäK and other software providers to provide software worth tens of thousands of dollars for student use in the classroom.

Simulation-based Life Cycle Engineering (SBA/SMART) (EIN6528), UCF

This course was selected to be incorporated into a national level curriculum in conjunction with materials supplied by George Mason University'

Advanced Engineering Economics (EIN6357), UCF

Organizational Learning and Virtual Environments (ST: EIN5937), UCF

Military Applications in Synthetic Environments (ST: EIN6938), UCF

Simulation Practicum (EIN6946), UCF

Military Operations Research (ST: EIN5937), UCF

Graduate level Instructor

Engineering Management (EIN6322), UCF

Management Information Systems (EIN5117)

Intelligent Simulation Training System Design (EIN6649), UCF

Undergraduate Level Instructor

System Simulation (ESI4523), UCF

Engineering Administration (EGN4624), UCF

Service:

Service Activities External to UCF

Associate Editor, Journal of Defense Modeling and Simulation,

Member, Editorial Board, Journal of Geographic Information System

Consulting Editor, International Journal of Applied Aviation Studies,

Special Issue Editor, Journal of Defense Modeling and Simulation, "Modeling and Simulation for Training Applications in Counter-insurgency/Irregular Warfare (COIN)," July 2009, Volume 6, No. 3

Reviewer and Referee, *Emerging Concepts and Innovative Technologies Committee,* Interservice/Industry Training, Simulation and Education Conference, Winter 2009 (Selected and requested to serve but had to resign the position when funding was not available to support travel requirements).

Deputy Chair, "Advanced Simulation Technologies" Session, Interservice/Industry Training, Simulation and Education Conference, Winter 2008

Reviewer and Referee, *Emerging Concepts and Innovative Technologies Committee,* Interservice/Industry Training, Simulation and Education Conference, Winter 2008

Chair, "Agents and Cognition" Session, Interservice/Industry Training, Simulation and Education Conference, Winter 2007

Reviewer and Referee, *Training Committee,* Interservice/Industry Training, Simulation and Education Conference, Winter 2007

Reviewer, Journal of Defense Modeling and Simulation, 2007

Chair, "Simulation and Gaming" Session, Interservice/Industry Training, Simulation and Education Conference, Winter 2006

Reviewer and Referee, *Training Committee*, Interservice/Industry Training, Simulation and Education Conference, Winter 2006

Reviewer, Journal of Defense Modeling and Simulation, 2006

Deputy Chair, "Performance Measures - - Do They Measure Up?" Session, Interservice/Industry Training, Simulation and Education Conference, Winter 2005

Reviewer and Referee, *Training Committee* Interservice/Industry Training, Simulation and Education Conference, Winter 2005

Reviewer and Referee, Simulation Interoperability Standards Organization, Spring, Fall 1998; Spring, Fall 1999, Spring and Fall 2000, Spring and Fall 2001, Spring 2002, Fall 2002

Reviewer and Referee, *Simulation Committee* Interservice/Industry Training, Simulation and Education Conference, Winter 2000, Winter 2001. Winter 2002

Chair, "C3I" Session, Interservice/Industry Training, Simulation and Education Conference, November, 2000.

Vice Chair, Elected, Simulation Interoperability Standards Organization, Small Team Training Planning and Review Panel, Spring, 2000

Elected Member, SISO Small Team Training Planning and Review Panel, Fall 1998, Spring & Fall 1999, Spring 2000

Reviewer, Computers and Industrial Engineering, 1997, 1998

Referee, 1st Distributed Simulation Symposium

Chair, "Innovative Representations of Simulation Models," Session GA-A, 1998 Winter Simulation Conference

Representative, UCF: Interservice/Industry Training, Simulation and Education Conference, Nov. 29 - Dec. 2, 1999.

Representative, UCF: Interservice/Industry Training, Simulation and Education Conference, Nov. 30 - Dec. 3, 1998.

Representative, UCF: 9th International Training and Education Conference in Lausanne, Switzerland, 24 April to 1 May 1998.

Judge, 41st Annual State Science and Engineering Fair of Florida, 1996

UCF Graduate Level Program Development and related Activities:

Director, Lockheed Martin Synthetic Environment Learning Laboratory (SELL): 2001 – continuing.

Member, Co-Founding Faculty, UCF Interdisciplinary Modeling and Simulation MS and Ph.D. Degree Program, 2001 – continuing

Member, IDS M&S Graduate Admissions & Awards Committee: Fall 2012 – continuing.

Judge, Eleventh Annual Graduate Research Forum, UCF, Spring 2014

Chair, IE MS Oral Exam, Spring 2014

Chair, PhD Qualifying Exam, Advanced Engineering Economic Analysis, Spring 2014

Chair, PhD Qualifying Exam, Advanced Engineering Economic Analysis, Fall 2013

Chair, PhD Qualifying Exam, Advanced Engineering Economic Analysis, Spring 2013

Member, PhD Qualifying Exam, Advanced Engineering Economic Analysis, Fall 2012

Director, Synthetic Environments Learning Laboratory, 1995 – 2001

Co-Developer, IEMS, Interactive Simulation and Training System Masters Degree Program curriculum.

Co-Developer, IEMS, Training Simulation Certificate.

Presenter, Interactive Simulation and Training Systems Graduate Program AND Interdisciplinary Studies Modeling and Simulation Programs: Ongoing: Chilean, Singapore, German , US military officers, faculty from England, officials from STRICOM, USAF, Joint Service organizations, NAWC-TSD, etc.

Developer and Course Director, Advanced Modeling and Simulation Technical Course:, 2008 – Continuing.

Co-founder, IEMS Interactive Simulation and Training Systems MS and Ph.D. track options: 1998 – continuing.

Other Service Activities Internal to UCF

UFF-UCF Council Member & Alternate Senator, AY 2013 – 2015.; Member UFF, AY2010 – continuing.

Member, Ad Hoc Committee for Review of the Impact of Graduate Committee Recommendations on the ISTS related degree programs

Member, CECS TIP Selection Committee, Spring 2014

Member, CECS RIA Selection Committee, Spring 2011, 2012, 2013

Chair, Interactive Simulation and Training Systems, Ph.D. Qualifying Examination – Spring 2009 – Spring 2014

Chair, Human System Design and Training Simulation Track Merger Committee, Fall 2009

Recruiter, ISTS and IDS M&S Programs: Actively involved in the recruitment of nearly 70 people into this program.

Member, Ad Hoc Committee for Ph.D. in Simulation, University of Central Florida, 1995 - 1996, 1999 - 2000

Member, Ad Hoc Committee on Simulation, IEMS Department, 1995 - 2000

Chair, IEMS Ph.D. Qualifying Examination, Interactive Simulation and Training System Specialty, Fall, 2010

Judge, CECS Graduate Research Forum - March 2010

Chair, IEMS Ph.D. Qualifying Examination, Interactive Simulation and Training System Specialty, Spring, 2010

Chair, Interactive Simulation and Training System – Human Engineering/Ergonomics Track Merger Committee, 2009

Chair, IEMS Ph.D. Qualifying Examination, Interactive Simulation and Training System Specialty, Fall 2009

Member, Department of Industrial Engineering and Management Systems Promotion & Tenure Committee, 2005 - continuing

Member, Faculty Search Committee, 2008-2009

Coordinator, ABET: EIN5255 Class, 2006 - 2008

Member, Department of Industrial Engineering and Management Systems Graduate Committee, 2006 - 2007

Member, College of Engineering and Computer Science Sabbatical Review Committee, 2006

Member, College of Engineering and Computer Science Computer Equipment Committee, 2006

Chair, Interactive Simulation MS Oral Comprehensive Examination, Fall 2006

Member, Interactive Simulation QE, Fall 2006

Chair, Interactive Simulation MS Oral Comprehensive Examination, Fall 2005

Chair, Interactive Simulation QE, Spring 2005

Chair, Interactive Simulation MS Oral Comprehensive Exam, Spring 2005

Member, Interactive Simulation QE, Fall 2004

Member, Faculty Recognition Task Force, 2004 - 2005.

Chair, Faculty Search Committee, 2003 -2004

Member, IEMS Research Committee, 2003 – 2004

Member, University Personnel Committee, 2001-2003

Member, College of Engineering Computer Users Committee, 1995 - 2002

Chair, IEMS Research Committee, 2001-2003

Member, IEMS Simulation Committee, 2001-2002

Member, Faculty Recruitment Ad-Hoc Committee, 2001-2002

Chair, Graduate Fellows Committee, Lockheed Martin Synthetic Environment Learning Center, College of Engineering, University of Central Florida Foundation, 1999.

Assessor, IEMS ABET Assessment of Course Core Competencies, 1999

Member, IEMS Laboratories and Space Committee, 1998-1999.

Chair, Interactive Simulation and Training Systems, IEMS M.S. Oral Comprehensive Examinations, Spring, Summer, Fall: 1997, 1998, 1999

Member, IEMS Faculty Search Committee, 1998, 1999.

Reviewer, Ph.D. IEMS Qualifying Examination for System Simulation, Fall 1997 and Spring 1998

Chair, IEMS Honors and Awards Committee, 1997

Member, IEMS Honors and Awards Committee, 1996, 1998, 1999

Presenter, College of Engineering, Prospective-Undergraduate Student Open House, Spring and Fall 1995, 1996, 1997.

IEMS Faculty Secretary, Jan 1995 - Aug 1995

UCF OSI Student Organization Advisor

Expressive Arts Club: 2004, 2005, 2006

Academic Advising

Over 80 students since 1995

Professional Affiliations

Charter Member, Certified Modeling and Simulation Professional

Senior Member, Institute of Industrial Engineers

Member, Society for Computer Simulation (SCS);

Professional Member, American Society for Engineering Education

Member, National Training Systems Association (NTSA)

Member, American Defense Preparedness Association/National Security Industrial Association (ADPA/NSIA);

Member, Association of the United States Army

Member, Simulation Interoperability Standards Organization

Member, Military Operations Research Society

Part 2:

Military: The military section is also further divided into: Professional Employment; Research Reports and Presentations, Awards, Decorations, & Miscellaneous, and Teaching and Service.

Professional Employment:
Summary & Highlights: One of two officers ranked high enough at West Point in 1972 to be able to select assignment to then Combat Developments Experimentation Command and the live instrumentation ranges of Hunter Liggett Military Reservation years before the advent of MILES in the 1980's; Terminal assignment: selected for service as the Director of Research Activities, TRAC, Monterey where I oversaw and directed $3,634,444 competitively-selected Army research projects conducted at the Naval Postgraduate School, Los Alamos National Laboratory, Lawrence Livermore National Laboratory, and RAND.

Rank

Lieutenant Colonel, U.S. Army, (Retired, Terminal Leave, 1994)

Previous Technical Positions Held

Director of Research Activities (Monterey, Los Alamos, and Lawrence Livermore TRAC Research Activities), Training and Doctrine Analysis Center, Naval Postgraduate School, Monterey, California, 1991 - 1994 (Synthetic Environments & Representations; Model, Test, Model; Simulation Modeling, Engineering & Program Management)

Chief, Analysis and Technical Support Division, Airborne and Special Operations Test Board, Ft. Bragg, North Carolina, 1986 - 1987 (Engineering & Program Management; Management Information Systems; Human Factors Analysis; Experimental Design; Video and Photographic Tracking; Electronic Telemetry)

Chief, Plans and Analysis Division, Airborne Test Board, Ft. Bragg, North Carolina, 1984 - 1986 (Engineering & Program Management; Management Information Systems; Human Factors Analysis; Experimental Design)

Instructor, Mathematics and Computer Science, United States Military Academy Preparatory School, Ft. Monmouth, NJ, 1980-1983

Chief, Review and Analysis Team, Assistant Division Commander, 2nd Infantry Division, Korea 1975-1976 (Study Development; Data Analysis; Trend Analysis)

Assistant Chief, Review and Analysis Team, Assistant Division Commander, 2nd Infantry Division, Korea, 1975 (Data Analysis; Trend Analysis)

Experimentation Leader, Combat Developments Experimentation Command, Ft. Hunter Liggett, CA, 1973-1974 (Field Experimentation Leader).

Airborne and Special Operations Test Board Activities

Designed experiments for over 70 airborne and special operations tests involving function and reliability of equipment, operational use of the equipment and the human factor interface between man and equipment, 1984-1987

Combat Development and Experimentation Command Activities

Performed leadership roles in human factors and usability testing on live instrumented ranges of armored, mechanized, infantry, and intelligence and surveillance field equipment and tactics to include evaluations on Dragon, TOW, MAPPRO, FC 002, Parapet foxhole, SOTAS and JSARS

Other Positions Held

Company Commander, Combat Support Company, 3rd Battalion, 11th Infantry, 5th Infantry Division, 1978-79

Assistant, Operations Officer, Division Support Command, 5th Infantry Division, 1977-1978

Battalion Motor Officer, 1st Battalion, 38th Infantry Division, 2nd Infantry Division, 1976*

Weapons Platoon Leader, 1st Battalion, 38th Infantry Division, 2nd Infantry Division, 1976

Assistant, Security, Plans and Operation Officer, Experimentation Battalion, Combat Developments Experimentation Command (CDEC), 1975

Executive Officer, Infantry Company B, CDEC, 1974-1975

Status and Special Designations

SECRET CLEARANCE, University of Central Florida, 1998.

TOP SECRET CLEARANCE, USA Central Personnel Security Clearance Facility, Ft. Meade, Maryland, 11 Jan 1994 and 18 April 1985

Program Management Designation (6T) - 1984-1986

Significant Military Schooling

Army War College, 1993-1994 (voluntary withdrawal due to retirement)

Command and General Staff College, 1987

Operation Research System Analysis Military Applications Course II, 1983

Operation Research System Analysis Military Applications Course I, 1981

Logistics Management Development Course, 1977

Infantry Officer Advanced Course, 1977

Motor Officer Course, 1975

Ranger Course, 1973

Airborne Course, 1972

Infantry Officer Basic Course, 1972

Teaching & Service: Summary & Highlights: Volunteer professor and advisor at NPS. Mathematics and Computer Science, United States Military Academy Preparatory School, Ft. Monmouth, NJ

Volunteer Visiting Professor, Operations Analysis, Naval Postgraduate School, Monterey, CA, 1991-1994

Volunteer Teaching

Computer Generated and Semi-Automated Forces, NPS

Test and Evaluation; included sub-courses on Program Management and Experimental Design, NPS

Instructor, Mathematics and Computer Science, United States Military Academy Preparatory School, Ft. Monmouth, NJ, 1980-1983

Calculus, USMAPS

Analytic Geometry, USMAPS

Trigonometry, USMAPS

Algebra, USMAPS

Introduction to Computers, USMAPS

Personal: The personal section is also further divided into: Professional Affiliations; Education, Outside Activities

Additional Education

Ph.D. Industrial Engineering North Carolina State University 1991 Competitive Scholarship

Dissertation: Proctor, Michael D., "The Analytical Effectiveness of Multiattribute Selection Models for MANTECH Projects."

M.S. Operations Research Florida Institute of Technology 1984 Competitive Scholarship

M.S. Computer Science Monmouth University 1983 Tuition Assistance

B.S. Engineering United States Military Academy 1972 Competitive Scholarship

Workshops & Educational Development

Terra Vista Pro, Presagis, 2008

Simulation-based Acquisition, DiSTI, 2001

Multigen-Paradigm, Inc., Vega, 1999

Advanced Neural Networks, 1998

Multigen Creator, 1998

HLA Development, 1998.

M&S Staff Officer Course, 1998.

Low Cost Computer Graphic Systems, 1998

High Level Architecture, 1997

Icon Author Basic and Advanced, 1997.

Foundations of Cooperative Learning, 1997

Superscape VRT and VWW Training Overview, 1997

Introduction to ModSAF, 1996

Ground Vehicle Dynamics, 1995

Simulation with Arena, 1995

Outside Activities

Consulting

Researcher, Nations Incorporated

Reviewer, <u>Applied Modeling and Simulation,</u> US Air Force Academy & OAO Corporation

Reviewer, <u>Introduction to Simulation: A Case Study Approach</u>, John Wiley & Sons

Personal Activities

Family, previously assistant Girl Scout Leader, US Military Academy Prep School Bible Study Club leader, swimming, surfing, bike riding, tennis, basketball, soccer, roller blading, softball, mountain climbing, sailing, church choir member, orienteering, and currently service to the Lord Jesus Christ, as all that I am or ever hope to be and often beyond what I have even imagined has been made possible through His power, bestowal of unmerited mercy and grace, and indwelling of the Holy Spirit.