

## Expertise

Use of management techniques combined with state-of-the-art analytics to create and manage value in domains from large data, augmented reality, autonomy and oil/gas environments.

## Education

**SAS** – Certificate in analytics and various AI/ML courses 2019

**MBA** with minor in finance, Texas A&M Commerce, Fall 2018

**MIT Executive Certificates** in Strategy and Innovation 2012

Management and Leadership 2013

**Ph.D.** in Computer Engineering, University of Central Florida - 1997

**Dissertation Title:** Automated performance monitoring and evaluation in training systems

**M.S.E.** in Computer Engineering, University of Central Florida – 1991,

**Thesis Title:** real-time computer-generated cockpit instrumentation

**B.S.E** in Computer Engineering – 1988, University of Central Florida

## Academic Appointments

<b>Adjunct Professor</b> , Texas A&M Commerce, College of Business Program Management , Database design and business process	2019-Present
<b>Adjunct Professor</b> , The University of Central Florida, College of Engineering, Orlando, Florida. Program Management and software lifecycles	1994-2004
<b>Research Sponsor</b> , Delhi Technical University, Delhi India College of Engineering Program management	2009-2013

## Industry Experience

**Amante Del Vino** **2018-Present**

**Owner - Wine importer and Distributor**

- Performed Market analysis of DFW market
- Setup business structure to effectively meet that demand

- Performed necessary business constructs to satisfy Federal and state level requirements
- Setup and created import capabilities to receive international products
- Setup and executing Marketing campaigns to sell and expand the business
- Building business relationships to expand markets
- Business on track to provide a run rate of \$40k-\$50k starting year with appropriate margins, return on investments and meet stakeholder requirements

**Lockheed Martin Corporation -**

**2007-Present**

- Management of corporate innovation program (Innovate the future) (>\$5+million / year)
  - Responsible for management of staff 10+ direct reports along with the cost/performance of the innovation outcome to management
  - NPV and ROI calculations for all aspects
  - Used project management tools/methods to track and ensure 100+subprojects were on track and meeting the required goals
- Management of corporate innovation initiatives (\$30 million / year) – Managed corporate portfolio including deliverables and staffing
  - Hiring and firing of 20+ dedicated staff, starting/stopping programs based on their performance
  - Financial collection and reporting of charges and book keeping throughout the year.
  - Tracking impact of projects and efforts towards the corporate \$40B yearly goals.
- DARPA program management and principal investigator (\$1m /year)
  - Managed staff of 5 to create an on time on budget activity
  - Marketing analysis and face to the customer concerning the performance of the team
- Program manager and principal researcher in Autonomous Systems (UAV/UGV/UUV/USV) - \$10M /year management in internal research
  - Performed marketing analysis on where efforts should be performed
  - Hired and managed all staff
  - Performed financial analysis of market segments and the necessary risk/reward in market segments based on local/global economic conditions, value chain assessment, first or second to market considerations and financial accounting structures necessary to meet the new market segments.
- Business Analytics and methodologies for new business ventures.
- Participated in financial analysis of the acquisition of companies and their effect on the LM corporate bottom / top lines. Merger and Acquisitions (\$25+ million class companies)
- Business Innovation techniques and applications.
- Big Data for Sustainment and Augmented Reality using Gaming Techniques
- Business Intelligence and Intellectual Property positioning (\$4B responsibility)
  - Perform detailed IP valuation techniques, market analysis, supply chain responsibility to ensure \$100+M investments strengthen the supply chain.
  - Provide executive level briefings on the value chain and IP assessments

- Provide recommendations and coordination to the supply chain team
- Provide recommendations and coordination to the contract setup and negotiation team
- Performed and managed team (20+) to setup and coordinate business analytics and machine learning techniques to ensure business model prediction and potential outcomes.

**Drewes Electric Vehicles**

**2005-2009**

**Owner and president**

- Setup electric vehicle business to provide consumer based electric cars.
- Researched and performed market analysis, potential return on investments and all financial /economic considerations to start the business
- Performed all necessary Federal (DOT/EPA/NHTSA) State and local permits and processes to ensure successful startup of activities
- Ran successful relationships with supply chain and subcontractors to provide quality products on time on budget.

**Science Applications corporation and other various defense contractors. –**

**2000-2007**

- DARPA Grand Challenge Mission Planning. Program manager
  - Managed staff of 10-20 over three initiatives to include gap analysis and value add to university/industry teams
  - Worked marketing and analysis to assist the global team in the fund raising / marketing of the activities
- Built out new business areas in intelligent agents from 0-\$5M/year in 3 years
  - Using management / marketing practices
  - Influence internal and external stakeholders on the value of the ideas
  - Appropriate return on investments
  - Marketing and collaboration with congressional representatives
  - Proposals and negotiations.

**Silicon Graphics Incorporated –**

**1995-2000**

- Performed presales activities to support everything needed to bring in the sales of the computer equipment and supporting software
  - Generate program / capture plans
  - Execute plans and manage internal/ external staff
  - Setup Virtual reality center to influence \$100M of new business opportunities
  - Managed finances and staff (3+) of virtual reality center
- Participated and led various aspects of \$1B + capture opportunities

**Walt Disney World**

**1987-2000**

- Management and performance analytics in attractions.
- Managed staff (up to 50) for attraction operation
- Follow Disney marketing and customer support operations

**Dr. Peter Drewes**  
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- Ensured the people/resources were available to provide ride operations
- Customer service

**University of Central Florida** 1983-1988

- Programming for course scheduling
- General Support

**Drewes Consulting** 1979-1983

- Educational Programming applications

**Publications (Sample)**

**Citations:27 h-index:3**

### **Peer-Reviewed Journal Publications**

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**Drewes, P.**, (2008), Journal of Aerospace Computing Information and Communication, Advancing Robotics: The Urban Challenge Effect, Special Issue on Urban Challenge, Vol. 5, no. 12, pp 530-542

**Drewes, P.**, Gonzalez, A. J., Gerber, W. (2000), , Interpreting Trainee Intent in Real Time in a Simulation-based Training System. Transactions of the Society for Computer Simulation, 17(3), 120–134

**Drewes, P.**, (1995), Proceedings of the IEEE International Conference on Systems, Man and Cybernetics, 1995, Automatic performance monitoring and Evaluation

### **Peer-Reviewed Conference Publications**

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**Drewes, P.**, (2004), Live, Virtual, and Constructive Combined Operations - *A Study in Unmanned Systems*, Inter-service Industry for Training Simulation and Education Conference

**Drewes, P.**, (2002), *Semi-Autonomous Forces Involving Robotic Entities Research Results*, Inter-service Industry for Training Simulation and Education Conference, Orlando Florida,

**Drewes, P.**, (2001), *Experimentation in Group Robotics Behaviors*, Inter-service Industry for Training Simulation and Education Conference, Orlando Florida,

### **Conference and Workshops Presentations without Proceedings (Lightly Reviewed)**

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**Drewes, P.**, (2009), "Increasing Situational Awareness Through the Use of UXV Teams While Reducing Operator Work Load," Association for Unmanned Vehicle Systems International, Washington, DC, August 10-13, 2009.

**Drewes, P.**, (2006), *Embedded Multi-Modal Unmanned System Training*, Association for Unmanned Systems Vehicle International

**Drewes, P.**, (2003), *Demonstration of a Systems Architecture for live, virtual and constructive UGV operation*, Association for Unmanned Systems Vehicle international,

**Drewes, P.**, (2001), *Unified Entity Maneuver and Human Performance Modeling*, Simulation Interoperability Conference

## Grants and Contracts

<b>Principal Investigator</b> , “ASVC”, Office of Naval Research /Association for Unmanned Vehicle Systems International Autonomous Surface Vehicle Competition, 2007		<b>\$50,000</b>
<b>Principal Investigator</b> , “LANDROIDS”, Defense Advanced Research Projects Agency, Sponsored Research Autonomous systems	2002-2005	<b>\$1M</b>
<b>Key Personnel</b> , Autonomous systems, Defense Advanced Research Projects Agency, Sponsored Research in Autonomous Systems	2003-2005	<b>\$1M</b>
<b>Key Personnel</b> , “Software for Distributed Robotics”, Defense Advanced Research Projects Agency, Sponsored Research in autonomous systems	2002-2004	<b>\$1M</b>
<b>Principal Investigator</b> , “Manned Unmanned Teaming”, Research and Development Command, Sponsored Research in Live Virtual and Constructive Training Systems	2001-2005	<b>\$2M</b>
<b>Principal Investigator</b> , “Intelligent Agents”, Research and Development Command. Sponsored Research in non-mobile agents	2000-2001	<b>\$500k</b>

## Teaching

System Engineering – Full lifecycle analysis including group projects and presentations. This senior level undergraduate course covered necessary steps for successful entry into the job market. Approximately 30 students per semester.	1994-2004 University of Central Florida
High Performance Computing – Analysis of computer architectures, their advantages and methods for computing big data, graphics and busses for future implementation. Graduate course, approximately 40 students, video / online course.	1998-2000 University of Central Florida
Introduction to Programming – Embedded low level programming course for sophomore / junior level students to understand computer architecture and logical reasoning to determine tasks. Approximately 30 students per semester.	2000-2002 University of Central Florida
Project Lifecycle / Program Management – Instruction for Delhi Technical University students to understand the entire project lifecycles, budgets, marketing and business around sponsored UAV research. Approximately 20 students per semester.	2009-2013 Delhi Technical University New Delhi