UNMANNED EDUCATION

THE + SMART WAY TO EDUCATE FOR SUCCESS

© 2012 Unmanned Vehicle University
UAV Education & Research
Unmanned Vehicle University

New campus for unmanned education
Expert instructors
R&D
Training
Pilots & engineers
Flight Test
Established online
Astronaut on BOD
(Brian Binne Test Pilot, Space Ship One)
Unmanned Vehicle University Offers Online Degrees

The online Unmanned Vehicle University will begin offering classes starting in May, with degree programs beginning in June.

The university offers graduate degrees, both master’s and doctorates, in unmanned systems engineering. The degrees are available in air, ground and sea systems. An executive certificate course, which covers the basics of the industry, begins 9 May and the degree programs begin 11 June.

Courses are taught online from 7 to 9 p.m. EST one day per week for a 12 week quarter, and are available iPads and iPhones.

Go to www.uxvuniversity.com for more information and to enroll.

White House, DARPA See Personnel Changes

President Obama has appointed Todd Park as the nation’s second chief technology officer, filling a vacancy left by the departure of Anesh Chopra. The CTO is responsible for ensuring that innovative technologies are used to support administration priorities, including job creation and enhanced energy efficiency.

DARPA’s head, meanwhile, has decamped to Google. Wired’s Danger Room blog reports that Regina Dugan is leaving DARPA’s top post to take a senior executive position with Google, although the technology giant hasn’t said what she’ll be doing. Dugan has headed DARPA for the past three years and brought some innovation to the already innovative agency, including by crowdsourcing some high-tech UAV designs.

Xombie Spacecraft Makes Groundbreaking Landing

A new rocket-powered vertical landing demonstrator had a successful flight on 2 Feb. at the Mojave Air and Space Port in Calif., NASA says.

Masten Space Systems’ Xombie suborbital rocket lifted off the pad, rose 164 feet, moved laterally 164 feet and landed on another pad after a 67-second flight.

The flight represents the first step in developing a capability that could lead to landing technologies needed to explore planets, moons and near-earth objects such as asteroids, NASA says. The aerospace agency’s Flight Opportunities Program sponsored the test of the flight and control systems. Later demonstrations will take start at much higher altitudes, several miles above the ground.
Commercial Astronaut
On December 17, 2003, the 100th anniversary of the Wright brothers' first powered flight, Binnie piloted the first powered test flight of SpaceShipOne, flight 11P, which reached a top speed of Mach 1.2 and a height of 20.7 kilometers. On October 4, 2004, he piloted SpaceShipOne's second Ansari X Prize flight, flight 17P, winning the X Prize and becoming the 435th person, and the first citizen of Scotland, to go into space. His flight, which peaked at 367,442 feet (69.6 mi; 112.0 km), set a winged aircraft altitude record, breaking the old record set by the North America X-15 in 1963. It also earned him the second set of Astronaut Wings to be given by the FAA for a flight aboard a privately-operated commercial spacecraft.

Biography
Brian Binnie is a Program Business Manager and Test Pilot at Scaled Composites. He has 21 years flight test experience including 20 years of Naval Service in the Strike-Fighter community. He has logged over 4600 hours of flight time in 59 different aircraft and is a licensed Airline Transport Pilot. Brian’s educational background includes a B.S. in Aerospace Engineering and an M.S. in Fluid Mechanics and Thermodynamics from Brown University and an M.S. in Aeronautical Engineering from Princeton University. He is a graduate of the U.S. Navy’s Test Pilot School at Patuxent River, MD and the Naval Aviation Safety School at Monterey CA. He is a member of the Society of Experimental Test Pilots and a published member of the American Institute of Aeronautics and Astronautics.
Unmanned Aircraft Vehicle Design Course
June 5-7, Crown Plaza Washing National Airport Hotel
Mr Phillippe Roy, VP ATE AeroSurveillance

**Topics**

**Subject Matter Expert/Instructor** Phillippe Roy is currently Vice President of ATE Aro-Surveillance and overseas business and product development activities for the company. He has over 25 years of worldwide experience in the defense and aerospace electronics industry with a specific emphasis in unmanned aircraft systems and technologies. He has direct experience in the development of Unmanned Aircraft Systems, avionics as well as a range of sensor processors, real time software computing and networking technologies. Prior to ATE for the past 13 years, Mr Roy has held several senior management positions at Mercury Computer Systems, who is one of the leading suppliers of sensor processor systems for the DoD. He has been involved in over 50 large programs including sensor payload suite for Global Hawk, Predator, JSTARS, Gorgon Stare as well as US and International programs such as Gripen fighter radar, F-18 and many others. He holds an electrical engineering from the University of Poiters, France, attended the Babson College MBA program, and graduated from the executive management program in Ivey School of Business in London Ontario. While at Mercury, Mr Roy received the 2007 Solution of the Year Award from Advanced Imaging Professionals for introducing the first mobile synthetic vision navigation system and making general aviation safer. Mr Roy is an active member of the ASTM F38 committee who has been appointed by the FAA to write the upcoming regulations for Small Unmanned Aircraft Systems. In 2010 he was granted primary inventor status and co author of patent 7,747,364 on methods, apparatus and systems for enhanced synthetic vision and multi sensor data fusion to improve operational capabilities of unmanned aircraft systems. He is a regular speaker at US and International conferences and referenced as an expert on unmanned aircraft systems and airborne payloads. He also holds a commercial pilots license for multi-engine aircraft with instrument privileges and is an active pilot with over 1800 hours including over 1000 hours of multi-engine time.
Unmanned Ground Vehicle Fundamentals Course  
June 12-14, Crown Plaza Washington National Airport Hotel  
Dr Robert Finkelstein, President, Robotic Technology Inc

Topics

Subject Matter Expert/Instructor  
Dr. Finkelstein has more than 40 years of experience in: intelligent systems and robotic vehicles; military and civil systems analysis; operations research; business development; technology assessment and forecasting. Dr. Finkelstein earned a Doctorate in the primary field of Systems Theory and Cybernetics and the supporting field of the Management of Science, Technology, and Innovation, the George Washington University (GWU, 1995); Ap.Sci. (Applied Scientist degree) in Operations Research (GWU, 1977); M.S. in Operations Research (GWU, 1974); M.S. in Physics (University of Massachusetts, 1966); B.A. in Physics (Temple University, 1964). Also: Diplomas from the U.S. Army Missile School (1967) and U.S. Army Ordnance School (1966); Certificates from the University of Tennessee Space Institute (Combat Obscuration Modeling, 1978) and University of California, Los Angeles (Battlefield Robotics, 1983), and post-graduate courses in Physics at MIT (1968-1970). As President of Robotic Technology Inc. (RTI) from 1985 to the present, Dr. Finkelstein is responsible for technical analyses, technology assessments and forecasts, operations research, business development, and other professional services, for government and industry - nationally and internationally - in military and civil advanced technology systems, especially robotics, unmanned vehicles, and intelligent systems. Dr. Finkelstein is the inventor (patent pending) of the Energetically Autonomous Tactical Robot (EATR), which was developed under sponsorship of the Defense Advanced Research Projects Agency (DARPA). He is Collegiate Professor for the University of Maryland University College, Graduate School of Management and Technology, and he received the 2010 UMUC Teaching Recognition Award. He is also Co-Director of the Intelligent Systems Laboratory in the Center for Technology and Systems Management in the University Of Maryland Clark School Of Engineering. Previously he served as a U.S. Army Ordnance Officer in Missile Intelligence. Dr. Finkelstein has authored more than 200 technical reports and studies. He contributed articles to numerous publications and wrote a quarterly column and served on the Editorial Board for “Unmanned Systems” and Board of Directors for the Association for Unmanned Vehicle Systems International. His books include Unmanned Vehicle Systems: Military and Civil Robots for the 21st Century and Beyond, Pasha Publications (1994), Defense Year-Book 1992 (“Combat Robotics: From the Kaiser to the New World Order”), Brassey’s Publications, and “Military and Civil Robotics: Intelligent Machines in War and Peace,” IGI Global Publishers (to be published in 2012).
UAV Autonomy and Swarming Course  
June 19-21, Crown Plaza Washington National Airport Hotel  
Mr John Sauter, Jacobs Technologies

**Topics**  

**Subject Matter Expert/Instructor** Mr. Sauter is the director of Jacobs Technology’s research group working on novel methods for the analysis and control of complex adaptive agent-based systems. This group has established an international reputation for its pioneering work in stigmergic algorithms using fine-grained agent-based systems for unmanned systems. John has over 25 years’ experience in research and development using fine-grained agent-based methods for modeling and control of complex systems ranging from swarming air vehicle control to distributed information analytics for massive data. He has led Jacob’s research in swarming unmanned vehicle control over the last thirteen years. John served as project manager and principal investigator on a number of defense studies and demonstrations of advanced unmanned systems. He managed the DARPA JFACC program to develop an adaptive air planning application in complex, dynamic threat environments. He led the OSD NII study to evaluate Jacob’s novel stigmergic swarming algorithms in several full scale simulation experiments run by the Space and Missile Defense Battle Lab. He led the team that successfully demonstrated the use of swarming algorithms controlling multiple ground and air vehicles in several tests held at Aberdeen Proving Grounds in 2004 and later at NASA’s Wallops Island in 2007 and 2009. He has also led projects in studying the effectiveness of swarming unmanned systems for several military applications including persistent surveillance, target tracking, fast boat surveillance, and perimeter protection. He is the author of over 25 papers and holds three patents using agent-based technologies for the analysis and control of a wide range of systems
UAV Fundamentals
3 Day Short Course
Unmanned Aircraft System Fundamentals Course
June 26-28, Crown Plaza Washington National Airport Hotel
Dr (Col Ret) Jerry LeMieux, Executive Director, Unmanned Vehicle University

Topics

Subject Matter Expert/Instructor
Doctor (Col Ret) Jerry LeMieux is an engineering PhD and pilot with over 40 years and 10,000 hours of aviation experience. With a BS on Electrical Engineering, Doctor LeMieux joined the USAF as a ROTC distinguished graduate. He is a Senior Pilot with over 2500 hours as a combat ready fighter pilot, instructor pilot and commander. While on active duty, Doctor LeMieux simultaneously completed the Masters and PhD degrees in Electrical Engineering. Doctor LeMieux has over 20 years of experience in program management, systems engineering and test and evaluation for AEW, fighter and tactical data link acquisition programs. He has experience with research, development, technology transfer, integration and flight test and evaluation. He has consulted on numerous airspace issues for the US Federal Aviation Administration, Air Force, Army, Navy, NASA, DARPA and all major defense contractors. Doctor LeMieux is currently working with the FAA sponsored RTCA Special Committee 203 on legislative and airspace issues related to integrating unmanned air systems into US National Airspace. He is a National Expert on both ground based and airborne UAS Sense & Avoid (SAA) systems. He is a co-author of a technical paper with the FAA on worldwide spectrum requirements for all US unmanned aircraft (to be presented by the FAA and at the World Radiocommunication Conference in 2012). He has recently contributed to the first FAA Certificate of Authority for a US Army UAS using a ground based SAA solution. Doctor LeMieux has over 20 years of course development and teaching experience at major Universities and Aviation Schools including; Boston University, University of Maryland, Embry Riddle Aeronautical University and Daniel Webster College. He has taught aeronautical, mechanical and electrical engineering and advanced mathematics courses at the undergraduate and graduate levels. Doctor LeMieux holds the Airline Transport License and was an airline pilot for Delta Air Lines for over 20 years. He has over 10,000 hours of flying experience with both domestic and international operations. For over 10 years he was the Executive Safety Chairman for the Airline Pilots Association in Washington DC where he was responsible for resolving airline safety issues US National airports.

© 2012 Unmanned Vehicle University
Existing Clients

• Degree program students, around the world
• International lectures scheduled
• AeroVironment Inc: New Employee Orientation
• Johns Hopkins University/Applied Physics Lab
• US Air Force
• Society of Experimental Test Engineers
• Singapore Air Force, DSTA, DSTO
Scheduled Events

• UAV Fundamentals Course (3 Day Short Course)
  – Singapore Military April 20-22
  – Seattle June 5-7
  – San Diego June 12-14
  – Washington DC June 26-28

• UMS Masters Degree Courses
  – Online July 2

• UMS PhD Degree Courses
  – Online July 2

• UAV Executive Course (8 Weeks)
  – Online May 9

• Society of Flight Test Engineers Conference
  – 4 Hour Seminar Oct 2
Prices

• MS & PhD Courses (12 weeks): $1600
• UAV Executive Course (8 weeks): $999
• 3 Day Short Courses: $1500
  – Minimum of 10
  – Can do in house at customer site
• One day UAV Basics Course at Customer Site
  – Minimum of $15,000
  – Covers instructor costs