

Bios of Robofest 2015 World Championship Exhibition Judges

Javier Alcazar, Ph.D.

Alcazar received a Ph.D. in robotics and controls from Cornell University. Afterwards he joined General Motors R&D to work 7+ years in vehicle dynamics and manufacturing system research laboratories. He work on autonomous grapping technics, Human modeling and Human Robot Interaction with Robonaut 2. He moved on to work for Honda R&D of Americas Inc. as part of the Intelligent Transportation Systems department. His research focused on Connected and Autonomous vehicles and Automated Highway systems. He is now at Continental Automotive R&D working on the first generation of autonomous driving. Dr. Alcazar is also the IEEE Chair of Robotics and Automation Societies in Southeast Michigan.

Philip Bigos

Philip was involved with Robofest in middle school and throughout highschool. This developed what would become a lifelong love of robots. From High school he attended LTU and was the first student to receive a Bachelors in Robotics Engineering. During his time at LTU he was president of CRU and competed at the college level VCC (Vision Centric Challenge) in Robofest and Intelligent Ground Vehicle Competition (IGVC). He was also a member of the first USA team to compete in the World Robot Olympiad were they placed 5th and he became known as Captain America among the competitors. Currently Philip coaches two middle school robotic teams at Southfield Christian and will be starting his career with Ford Motor Company in the fall.

Katherine Bis

Katie received her B.S. in Mechanical Engineering and her B.A. in Child Psychology from the University of Michigan. She worked for 15 years at Lionel Trains as a manufacturing engineer, design engineer

and then as an Engineering Program Manager. She is currently self-employed as an Educational Consultant and has developed a tutoring program for STEM subjects and Academic test prep. She has been actively involved in coaching and coordinating FLL, Robofest, Science Olympiad, and/or WRO teams for the last 6 years. She is also the 2015 WRO-USA coordinator.

Steven A. Gadzinski

Steve received his B.S. in Electrical Engineering from Lawrence Technological University where he was also a member of the Student Council, IEEE, and SAE. Upon graduation, he secured a position with Whitlock, Inc., where he designed and built the solid state circuitry for the control systems of plastics conditioning and delivery equipment. After several years, Steve joined Ford Motor Company. He was selected to attend the Ford & Wayne State Electronic Engine Control (EEC IV) program where, upon completion, put into production the first electronically controlled truck transmission. His career evolved around designing and releasing "on/off" solenoids, Pulse Width Modulated (PWM) solenoids, Variable Force Solenoids (VFS), Transmission Thermal Sensors, and Under-vehicle Connectors. Steve also invented and patented into production a wireless lead frame connector system connecting solenoids and sensors to the engine controller. He also secured a Business Leadership position becoming an ISO auditor leading Ford Transmission Engineering to full ISO 9001 certification. After a total of 33 years in the automotive industry, Steve retired from Ford Motor Company and now owns and operates his photographic business providing various photo and video services. In addition to judging Robofest, he continues as Chief Design Judge for the global Intercollegiate Intelligent Ground Vehicle Competition (IGVC).

Prof. Kun Hua, Ph.D.

Kun Hua has been an assistant professor of electrical and computer engineering Department, Lawrence Technological University, Southfield, MI, USA since 2010. He received the B.Sc. (with First Class Honors)

and M.Sc. degrees from Electrical and Computer Engineering, Xi'an Jiaotong University, Xi'an, China, in 1999 and 2004 respectively. He earned his PhD degree in computer and electronic engineering from the University of Nebraska-Lincoln, Nebraska, USA in 2008. He continued his research in the University of Nebraska Lincoln as a Post-doctoral researcher in 2009. His current research interests are in the areas of wireless communication and multimedia signal processing. He is a recipient of Best Paper Award of ACM ANSS 2011 and another of his paper is nominated as the Best Paper in IEEE BCGIN 2011. Prof. Hua is a senior member of IEEE. He served as Associate Editors for Wiley Security and Communication Networks Journal, guest editors in several special issues of International Journal of Distributed Sensor Networks, chairs and committees of several conferences.

Ursula Lincoln

Ursula is a Global Quality Manager, IT Corporate Functions at General Motors. Ursula holds a B.S. in Computer Science from Tennessee State University and M.S. in Information Technology Management from Webster University. She's an active member of MCWT serving on Membership and Operations key initiatives, Camp Affinity and Website Judging contest volunteer. She's a board member of several non-profit organizations and advisory board member for STEM programs. She has volunteered for many years with programs focused on sparking interest and increasing the number of minorities entering STEM fields. Her volunteer work has been with MCWT (Michigan Council of Women in Technology), DAPCEP (Detroit Area-Pre College Engineering Program), NSBE (National Society of Black Engineers), Sisters Code, Black Girls Code, ACES Program (ACT/SAT Prep), GMAAN (GM African Ancestry Network) and the Torch of Wisdom Foundation.

Aaron Miller, Ph.D.

Aaron J. Miller was raised in Marquette, Michigan and received his BA from Albion College with a double major in Mathematics and Physics. He received his PhD in Physics from Stanford University

in 2001, subsequently working as a research scientist for the federal government (NIST, Boulder CO) until joining the faculty at Albion College in 2005. He is currently on leave from Albion College to devote his full time to the operation of Quantum Opus, LLC, a high-tech company he founded in 2013.

John M. Miller M.D.

Dr. John M. Miller is a pediatrician and volunteer physician at St Frances Cabrini Clinic (perhaps the oldest free clinic in the U.S.) He received his medical degree from University of Michigan Medical School. He had taught in the Henry Ford Health System for 25 years and has been teaching in Computer Science and Bioinformatics at Lawrence Tech for 14 years. His first database application was for the University of Michigan Heart Station 44 years ago. His first microprocessor project was for monitoring airflow in toddlers' tracheotomy tubes in the PICU 32 years ago.

Thassyo Pinto

Thassyo Pinto received his B.S. in Mechatronics Engineering from Universidade Salvador (UNIFACS) in Brazil. As an undergraduate student, he had the opportunity to work as a volunteer in different organizations, participating and organizing seminars, workshops and competitions promoting technology awareness. He has experience in automotive industry, working as a vehicle mechanical package analyst, and as a sign-off engineer in the vehicle evaluation and verification area at Ford Motor Company. He is now a Ph.D. student in Electrical Engineering at Michigan State University, and a member of the Smart Microsystems Lab. His research interests are in soft robotics, evolutionary robotics and biorobotics. He is also an active member and volunteer of the IEEE organization and Robotics and Automation Society.

Jonathan Ruszala

Jonathan Ruszala received his B.S. in Electrical and Computer Engineering and M.S. in Computer Science from Lawrence Technological University. His graduate work focused on autonomous robotic platforms in the areas of electronic hardware, robot path planning and stereo vision. He is currently an adjunct professor of robotics and a faculty advisor to

LTU's autonomous robotics team. His industry experience includes work in the defense industry improving combat vehicle survivability. Currently he is at Ford Motor Company working on vehicle software controls. Jonathan also owns a small electronics company that provides electronics to emergency first responders.

Giuseppe Santangelo

The founder and CEO of Skypersonic™ a US company focused on the Aerospace Research and Unmanned Autonomous System technology development. He collaborates at LTU as adjunct professor of Space System Engineering and Aerospace Propulsion. He has been a professor of Attitude Orbital Guidance and Navigation Control at the International Master II level in Space Exploration and Development Systems at Polytechnic of Turin, Universität Bremen (Germany) and Grande Ecole Aérospatiale Supaero Toulouse (France). He was responsible for the development of several space research projects on behalf of the European Space Agency at Thales Alenia Space. He studied Astronautical Engineering at La Sapienza di Roma, Giuseppe participated to the engineering design and development of several equipment for the International Space Station.

Rahamath Shaik

Graduated with B.S. degree in Electrical Engineering, currently working as Sr. Software Engineer. He has been interested in electronics and designing and build custom circuits. He has coached/mentored Science Olympiad, FIRST Lego League and Robofest teams for about eight years. For past 4 years he is the main mentor for FIRST Robotics team from International Academy East high school, Troy. He teaches students in mechanical and electrical design and building competitive robots. His interest in full automation drives him to keep up to date with different sensors, materials and new technologies. If he is not busy teaching students, he is experimenting with new sensors and programming with Arduino, VEX Cortex micro controllers and more advanced roboRIO from National Instruments. Arduino IDE, EasyC and Labview are some of his favorite programming tools for automation. He believes in

inspiring young generation to explore STEM and training them to be good leaders. He actively volunteers as Technical and/or Exhibition judge for Robofest and FIRST Lego League competitions.

Lior Shamir, Ph.D.

Associate Professor of computer science at Lawrence Technological University. Specializes in artificial intelligence (AI), pattern recognition, and complex data analysis in several scientific disciplines. He directed numerous research projects related to computational intelligence, and developed novel AI methodology for machine perception of complex human-created data such as art and music. His methodology and research has led to numerous data-enabled discoveries in fields such as astronomy, cosmology, medicine, biology, zoology, and more. He is primary author of over 70 peer-reviewed scientific papers, and his research has been noted by public figures such as AI Kurzweil and Richard Dawkins. Many of his discoveries have been featured on the popular press such as NBC, CBS, Fox, Scientific American, Discovery, NPR, Wired Magazine and more, and he is frequently interviewed by the premier international popular media on topics related to machine perception.

Dan Ursu

Daniel Ursu received his B.S. in Biomedical / Mechanical Engineering and M.S. in Mechanical Engineering from The Johns Hopkins University in Baltimore, MD. His undergraduate work focused on medical applications and mechatronics, in particular, designing a more versatile crutch for the mobility-impaired, and a voice guided navigation guide for the visually impaired. His Master's research was in image guided intervention, minimally invasive surgery, haptic modeling of tissue, and stochastic optimization methods. He is now an M.D / Ph.D. student in Mechanical Engineering at The University of Michigan, Ann Arbor, MI and a member of the HaptiX and Neuromuscular Labs. His doctoral research interests are in medical robotics, smart prosthetics and human machine interaction and control. He is also an active member and volunteer of the IEEE Engineering in Medicine and Biology and Robotics and Automation Societies.