Robofest 2019 World Championship Bios of Judges (May 14, 2019)

May 18, 2019 at Lawrence Technological University (Judges' meeting at **8:30am, 2nd floor room in the gym**)

Listed in the order of acceptance for each category

Exhibition Judges

Elmer Santos has been the Robofest Assistant Director since 2017. Elmer is a Mechanical Engineer with a BS in Mechanical Engineering from Cornell University and MS in Manufacturing Systems Engineering from Stanford University. He worked for General Motors for 30 years in body assembly, industrial engineering, injection molding, paint engineering, and advanced vehicle development as an engineer and an engineering group manager. At GM, Elmer has worked with various robotics applications in Body Shops (resistance spot welding, material handling) and Paint Shops (sealing, painting). He has been involved with student robotics activities since 2001, mentoring teams and volunteering in Robofest, First Lego League, First Tech Challenge, First Robotics Challenge, Vex Robotics Competition, Vex IQ Challenge, and World Robot Olympiad.

Josh Siegel is an Assistant Professor of Computer Science and Engineering at Michigan State University and the lead instructor for the Massachusetts Institute of Technology's Internet of Things and DeepTech Bootcamps. He received Ph.D., S.M. and S.B. degrees in Mechanical Engineering from MIT. Josh and his automotive companies have been recognized with accolades including the Lemelson-MIT Student Prize and the MassIT Government Innovation Prize. He has multiple issued patents, published in top scholarly venues, and been featured in popular media. Dr. Siegel's ongoing research develops architectures for secure and efficient connectivity, applications for pervasive sensing, and new approaches to autonomous driving. He became interested in software development and robotics systems through his participation in Robofest, starting in 2001 and continuing through 2007.

Wuming Jing received his B.S. and M.S. degrees in Mechanical Engineering from Harbin Institute of Technology, China and Xi'an Jiaotong University, China, in 2006 and 2009, respectively. He had the Ph.D. degree from Stevens Institute of Technology, Hoboken, in 2014, also in Mechanical Engineering. Currently, he works at Lawrence Technology University, Southfield, as Assistant Professor. From 2014 – 2016, he worked as Postdoctoral Research Associate in MSRAL, Purdue University. His research interests are on the micro-, nano-scale robotics.

Dr. Lior Shamir Associate Professor of computer science and assistant dean for research at Lawrence Technological University. Specializes in artificial intelligence (AI), pattern recognition, and data science, he directed numerous government-funded 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 100 peer-reviewed scientific papers, and his research has been noted by public figures such as Ray Kurzweil and Richard Dawkins. His work has been featured on the mainstream media such as NBC, CBS, Fox, Scientific American, Discovery, NPR, Wired Magazine and more, and he is frequently interviewed by the premier international popular press on topics related to machine perception.

Grant Kruger is an Assistant Research Scientist in the College of Engineering at the University of Michigan. Throughout his manufacturing and biomedical research career, Dr Kruger has lead the development of several robotic and intelligent systems. He received his doctorate in Electrical Engineering in Intelligent Manufacturing Systems while working as a Research Assistant and Graduate Student Instructor at the Advanced Manufacturing Technology Research Center within the Nelson Mandela University, South Africa. Thereafter, he accepted a position as a lecturer in their newly established Mechatronics Department to assist with academic program development. In 2007 he continued to pursue his postdoctoral studies in advanced manufacturing and Biomedical Informatics at the University of Michigan within the S.M. Wu Manufacturing Research Center. His teaching expertise spans analog and digital electronics, networks and

control systems and he has mentored numerous students and student teams through a range of multidisciplinary design courses.

Jeffery V. Mosley Ph.D. Currently, Jeffery is an engineering consultant and owner of his own business. As a consultant, he provides input for his customer's future strategies that involve the development of commutations architectures and information system protocols. He is also an Adjunct Professor at Wayne State. He obtained his PhD in Human Performance Technology and a M.S. in Industrial Engineering from Wayne State University. His research interest spans diverse areas such as Genetic Algorithms, Computer Simulations, Artificial Intelligence, and Augmented Reality.

Benancio Gonzalez - Ben received his B.S. in Electrical Engineering from Lawrence Technological University. After working in Automotive and Aerospace Applications for 7 years went to Ford Motor Co. Ben received his MSEE from Wayne State University with a concentration in Electronic and Computer Controlled Systems. He also attended University of Detroit earning a Master's Degree of Business Administration (MBA) with a concentration in International Business attending the program in Amsterdam, Holland as part of the curriculum. During his time at Wisne and AT&T he developed various Automated Test Systems for the Military (Security Clearance), V6 Engines and Robotic Lines for laydown Body side Welding. At Ford he developed Test stands for Electric Fuel Pump Development and various Electronic Modules. Ben was the Engineering Launch Manager at Chicago Assembly Launching the first Police Interceptor Vehicles, in addition to the Taurus/Explorer/MKS Vehicles.

John Arnold - John is the lead account partner in IBM Global Business Services, responsible for consulting services with US aerospace & defense customers. John worked as an engineer and program director in the aerospace industry as well as in enterprise software consulting with industrial customers; continually inspired to work with people that design, explore and build things. John has been working to develop partnerships between IBM, LTU Robofest and Detroit Public Schools to support youth STEM robotics programs to help inspire and motivate the next generation of builders. John earned a Masters of Science degree in Electrical & Cyber Physical Control Systems Engineering from Syracuse University and a Bachelors of Science degree in Mechanical Engineering from the Rochester Institute of Technology.

Katherine Bis Katie earned 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 has taught AP Statistics and Algebra 2 at Country Day Upper School and has taught ACT/SAT prep classes for the past 10 years. Katie has been actively involved in coaching teams and/or coordinating competitions for FLL, Robofest, Science Olympiad, WRO, and Vex robotics for the past 9 years and has traveled internationally to Russia (2014), Qatar (2015), and India (2016) with her son's WRO World Championship qualifying teams. Katie is currently the Robotics Program Manager for Cranbrook Schools in Bloomfield Hills, Michigan.

Naim Shandi is an undergraduate electrical engineering student and a certified pharmacy technician. She is currently working as a tutor at The Academic Achievement Center, at Lawrence Technological University. Naim is The LTU IEEE Students Chapter Treasurer and a member in many other LTU student organizations. She is looking forward to continue her higher education after graduation at Lawrence Technological University.

Thassyo Pinto received his B.S. in Mechatronics Engineering from Universidade Salvador (UNIFACS), Brazil, in 2014. He is now a Ph.D. Candidate in Electrical Engineering at Michigan State University, and a member of the Smart Microsystems Lab and Adami Lab. His research interests are in soft robotics, evolutionary robotics and biorobotics. Through his leadership abilities, he has been guiding and improving many engineering student organizations at MSU as the Graduate Advisor for the IEEE MSU Student Branch, RAS MSU Student Chapter, and for the Strength Augmenting Robotic Exoskeleton Team (STARX). He is also an active member of many IEEE societies acting as the Regional Student Representative (RSR) for IEEE Region 4, and as the IEEE RAS RSR for Regions 1 through 7.

Peter Guenther has been teaching Computer Science since 2002 and for the last two years he has trained adults to become software developers through coding bootcamps at Grand Circus Detroit. He became involved in robotics in 1999 when the first version of LEGO Mindstorms was released and has eagerly followed each generation since, competing in LEGO Sumo competitions at conventions and winning multiple years at BrickFair Virginia. He has also

experimented with Arduino and other platforms and has recently been working on Robotics/IoT projects with the JavaScript Johnny Five library on Arduino and Raspberry Pi. He has been coaching middle and high school robotics teams since 2005 and Robofest teams since 2006; along the way he has taught hundreds more students to code through robotics summer camps.

Manal Osman Nagash. She received her Bachelor of Science Degree in Special Education - Gifted track. Excellent with Honor. Certifies TOT. Certified Robotics Trainer. Conduct workshops to bridge the gap between general and special education within the teaching and parental community since 2006. Created and manage the Artificial Intelligence Program, which includes preparing for robotics national and international tournaments. Represented Kingdom of Saudi Arabia in China 2009, Taiwan 2010, and awarded 3rd place in 2013 and 1st place research award on 2018 in Arab robotics championship. Best coach award 2018.

Yan Liu received her PH.D in Aero Space from Northwestern Polytechnical University, China in 1993. She worked for NATIONAL AEROSPACE LABORATORY, Tokyo, Japan for two years. She has worked for Toyota for 17 years. Currently, her job responsibility is CFD analysis on vehicle HVAC (heating, ventilation and air conditioning), vehicle aero drag, engine cooling and heat damage. Yan served as a judger a couple of times at Robofest game and exhibition category in Michigan and World Championship, and was a Judger for Advanced Robotics Competition category in 2015 World Robotics Olympiad final in Sochi, Russia.

Benjamin ("Ben") Sweet is a real-time embedded software engineer in the automotive industry since 1987. He currently holds the position of Senior Embedded Software Engineer in the Body Electronic Systems group at DENSO International, America. In this role he is a lead software team member developing body control products and features, such as remote keyless entry. He is also interested in learning and applying contemporary product development and process improvement methodologies, and disseminating that knowledge to his colleagues and students. He is named to ten U.S. patents that he has filed or co-developed throughout his career. Ben is also an Adjunct Faculty member at Lawrence Technological University, where he has taught for the departments of Math & Computer Science, Electrical & Computer Engineering, Humanities, Technology, and Continuing Education since 1994. His primary focus is Software Engineering, Embedded Systems, and Control Systems. He holds a M.S. in Electronic and Computer Control System from Wayne State University (1993), and B.S. in Electrical Engineering from Michigan State University (1987).

RoboArts Judges

Mirit Shamir graduated of Radzyner Law School and Arison School of Business School in 1999, and earned a Master degree in law (LL.M) from TelAviv University in 2003. In 2006 graduated from Michigan Technological University with M.S. in Environmental Policy. Recipientof NSF IGERT (Integrative Graduate Education and Research Traineeship for Sustainable Future) scholar award. Admitted to practice law in Israel in 2000, and actively practiced law as a profession for few years, focused on commercial, labor and environmental law.Since 2010 has taught in the Humanities, Social Science and Communication department at Lawrence Technological University. Learned to play the piano, music theory and dance at the conservatory for music and dance.

Pam Sparks is new to the Robofest team this year after coaching Robofest teams in 2018. She is a former school teacher having spent the majority of her 26 year teaching career at Hazel Park High School in Hazel Park, Michigan. She achieved a B.A. in the Biological Sciences and a M.A.T. in Education from Wayne State University in Detroit, MI. Also having a DX (Unified Group Science degree) made her the perfect candidate for bringing S.T.E.A.M. projects to her classroom and her award winning Science, Engineering and Robotics Programs. In 2013, The National Association of Biology Teachers recognized her excellence when she was awarded the State of Michigan's Outstanding Biology Teacher Award.

Oriehi Destiny Anyaiwe, Ph.D., - Oriehi is an Assistant Professor in the department of mathematics and computer science, Lawrence Technical University. He obtained his PhD in Computer Science and Informatics from Oakland University. His research interest spans diverse areas such as Bioinformatics, Big Data Mining and Pattern Recognition, Artificial Intelligence, Data Science and the development of Classification Algorithms for Matrix Data Points.

Maurice Tedder: He has been involved in Robofest since 2003 as a judge and coach. He received his MS in Computer Science from Lawrence Technological University and a BS in Aerospace Engineering from the University of Cincinnati (UC) and AS in Aviation Maintenance Technology from Embry-Riddle Aeronautical University. He is also a founding member of the LTU Intelligent Ground Vehicle Competition Team. He is currently working in STEM education and developing an open source online robotics gaming/AI platform. He also teaches a free monthly Introduction to AI & Machine Learning workshop and has been developing robotics prototypes, POC hardware and software for over 18 years.

Matthew McAllister: Matthew McAllister Jr. is a recent graduate from Lawrence Technological University who received his B.S. in Mechanical Engineering and is still the LTU IEEE Student Chapter Chair, LTU IEEE-HKN Student Chapter President, and LTU ESD Student Chapter President. He is still pursing two more undergraduate degrees at Lawrence Tech.: a B.S. in Electrical Engineering and a B.S. in Computer Engineering. He was also a former tutor for three years at the University's Academic Achievement Center, and is pursuing a career as an engineer at Yinlun TDI LLC currently. After earning his final two undergraduate degrees, he plans on continuing his higher education after graduation at Lawrence Technological University.

RoboParade Judges

Elmer Santos: See above

Pam Sparks: see above

Oriehi Destiny Anyaiwe: See above

Maurice Tedder: See above

Katherine Bis: See above

Tom Krent is an Education Specialist at Education Planning Resources where he assists students in career and education planning. Tom received his B.S. in Electrical Engineering from Pratt Institute, Brooklyn, NY. He has worked as an engineer at Ford Motor Company, owned a graphic design and marketing company, and provided technical analysis of financial markets for various financial advisors. Tom's community activities include serving as a scout leader in Boy Scouts of America for over two decades, servings on various boards and committees in his community, and is currently a Planning Commissioner in Troy, MI. Tom is a judge for Robofest, First Robotics Championship, Future City Competition, and Michigan Science & Engineering Fair.

David A. Carbery P.E. has been involved with Robofest since 2012 as a coach and judge in multiple competitions. He has recently taught a Bottle Sumo program at Bates Academy in Detroit. In 2018 he went to represent LTU at the Robofest competition in Mexico. David had previously worked with FIRST Robotics team 472. He has been working for FANUC America Corporation for 30 years. David has held positions in software and hardware design. He is currently a Product Development Staff Engineer. Responsibilities at FANUC include Hazardous Location approvals and electrostatics. David has recently signed a patent application for a new robot design. David earned a B.S. from LTU in Electrical Engineering. The degree requirement to take the F.E. exam set him up to earn an engineering license. David is scoutmaster of Boy Scout Troop 248 and is also a Merit Badge Counselor for: Engineering, Electronics, Electricity, Robotics, and Game Design. His daughter Jennifer participated in Robofest and volunteers periodically. His son Alex is in the Navy and is engaged to be married in 2019.