

DESIGN AWARD JUDGES

Dr. Stephen Canfield

Dr. Stephen Canfield received his Ph.D. in mechanical engineering from Virginia Tech, in 1997. Currently, Dr. Canfield is an assistant professor in the Department of Mechanical Engineering at Tennessee Technological University. He teaches courses in kinematics and dynamics of machinery, robotics, mechatronics and intelligent machines. He and his students are involved in research for compliant spatial manipulators, mobile climbing robots, assistive mechanisms for children with disabilities, and genetic algorithms for synthesis of compliant mechanisms.

Dr. John Jansen

Dr. John Jansen is a distinguish R&D Staff Member in the Robotics and Energetic Systems Group at ORNL and received his Ph.D. in electrical engineering from Georgia Institute of Technology. He has served on the faculty at Virginia Institute of Technology and State University where he taught courses in robotics, control theory, electrical machinery, and power electronics. Since joining the research staff at ORNL in 1988, his research interest, patents and journal publications have been in the design and control of electro-mechanical and electro-hydraulic systems with particular application to robotic systems for the Department of Energy and the Department of Defense.

Dr. Venu Varma

Dr. Venu Varma received his Ph.D. degree in mechanical engineering from the University of Maryland, College Park in 1993. From 1993-2001, he has been with the Robotics and Process Systems Division of Oak Ridge National Laboratory and works in the kinematics, mechanical design, dynamics and control aspects of robot development. Currently, he is a member of the Nuclear Science and Technology Division at ORNL. His current interests are in the area of piezoelectric and shape memory alloy actuator development.

Dr. Paul J. Palazolo, Ph.D., P.E.

Dr. Palazolo is the Assistant Dean of Engineering and Assistant Professor of Civil Engineering at the Herff College of Engineering at the University of Memphis. He received his BSCE and MSCE from Memphis State University and his PhD in Civil Engineering from Georgia Tech. He has interests in applications of artificial intelligence in environmental engineering such as genetic algorithms, genetic programming, and neural networks. He is the Director of Summer Development Programs, like "The Joy of Engineering" that is a program to introduce middle school children to engineering process. Current teaches an introductory programming class in Civil Engineering using Legos Mindstorms to illustrate logical program development.

PROGRAMMING AWARD JUDGES

Dr. Warren Dixon

Dr. Dixon received his B.S. and Ph.D. degrees in 1994 and 2000, respectively, from the Department of Electrical and Computer Engineering from Clemson University and his M.E. degree in 1997 from the Department of Electrical and Computer Engineering from the University of South Carolina. After completing his doctoral studies he was selected as an ORNL Eugene P. Wigner Fellow where he currently works in the Robotics Group of the Engineering Science and Technology Division. Dr. Dixon has written over 50 technical publications including several robotics and controls books.

Mark Noakes

Mark W Noakes, an R&D staff member with the Oak Ridge National Laboratory Robotics and Energetic Machines Group, has been involved with development, test, and deployment of robot systems for 20 years. He received his BS degree in Electrical Engineering from Tennessee Technological University, his MS in Electrical Engineering from the University of Tennessee, and is currently completing requirements for a PhD in Mechanical Engineering from the University of Tennessee. His primary interests focus on telerobotics, the human control of machines integrated with autonomous robotic actions to improve performance.

Dr. Lonnie Love

Dr. Love earned his Ph.D. in Mechanical Engineering from Georgia Institute of Technology in 1995. Dr Love has been on the research staff at Oak Ridge National Laboratory since 1995, conducting research in human amplification, ship motion compensation, learning control, tele-robotics, micro-assembly and smart and adaptive fluidic systems. He presently holds two patents and has over 30 publications.

Miss Paige Stafford

Miss Stafford received her Masters Degree in Computer Science from the University of Tennessee-Knoxville in 2002. She currently works at the Oak Ridge National Laboratory in the Networking and Computer Technologies Division. Her work involves migrating the laboratory network into a dynamic environment including implementing dynamic network registration systems. Her work as a programmer involves database and system programming applications written in C, Perl, shells scripting, HTML and Javascript.

PRESENTATION AWARD JUDGES

Lee McCauley

Lee McCauley is an Assistant Professor in the Computer Science Department at the University of Memphis. His work includes research on Intelligent Environments, where computers interact with humans through speech, gesture, and object recognition. Lee teaches a beginning programming class using LEGO robotics to inspire creative problem solving and organizes a four-day summer workshop to teach high school students how to build and program LEGO robots.

Yolanda Childs

Yolanda Covington Childs, a native of Centreville, Illinois, received her Bachelor of Science Degree in Chemical Engineering from Washington University in St. Louis, Missouri, and has completed graduate courses in both Chemical and Environmental Engineering. She is employed at the Y-12 National Security Complex as a Systems Engineer. Yolanda coached FIRST LEGO League teams for the Artic Impact and City Sights Challenges of 2001 and 2002.

Terry Olberding, P.E.

Terry Olberding is the Assistant Manager for the Office of Programs at the Y-12 Site Office, National Nuclear Security Administration. Her responsibilities include the managing the NNSA programs and projects at the Y-12 Plant. Terry has twenty-five years of government service. Previous work experience includes three years as the Assistant Manager for Technical Services at the Y-12 Site Office, several years as a Team Leader in the Nuclear Safety Division at Oak Ridge Operations, and numerous years as a mechanical engineer at the Tennessee Valley Authority. Terry obtained her Bachelor of Science degree in Engineering Science and Mechanics from the University of Tennessee in 1978, and she is a registered Professional Engineer in Mechanical Engineering.

Donna Riggs

Donna Riggs received her B.S. and M.S. in Industrial Engineering from the University of Tennessee with a manufacturing emphasis and is a registered engineer in Tennessee. Ms. Riggs is employed by the Department of Energy Oak Ridge Operations Office (DOE/ORO) and has experience with nuclear materials and weapons component production, quality assurance, Baldrige Criteria for Performance Excellence, strategic planning, and internal process/conflict facilitation. Ms. Riggs is active in the local chapter of the Society of Women Engineers, is on the Executive Committee of the Great Smoky Mountain Alumna Chapter of Tau Beta Pi (the National Engineering Honor Society), and regularly serves the Tennessee Center for Performance Excellence as an Examiner or on the editorial board. Ms. Riggs supports the technical education of our youth whenever possible, mainly through judging science fairs and volunteering with the annual regional Science Bowl hosted by DOE/ORO.

TEAMWORK AWARD JUDGES

Tom Burgess

Tom Burgess is currently the Remote Systems Group Leader in the Nuclear Science and Technology Division of Oak Ridge National Laboratory. He is a mechanical engineer (UTK, '83) with over 20 years experience in the R&D and design of advanced robotic and remote handling systems, tooling and process systems for hostile environments. Primary fields of application have included the nuclear fuel cycle, fusion reactors and accelerators. He has led many R&D and design activities in these fields for both national and international projects.

Pat Fitzpatrick

Pat Fitzpatrick is a graduate of Berea College with a degree in Elementary Education. She received her MS in Curriculum and Instruction from the University of Tennessee Knoxville and taught middle school science in Knox County, TN until retiring in May of 2002. She has worked with numerous groups having summer camp experiences at Oak Ridge National Laboratory. She was a state finalist for the Presidential Award for Excellence in Science and Math Teaching in 1998.

Martha Hammond

Ms. Hammond is a retired teacher with a Masters Degree in elementary education and 26 years of experience in the elementary and middle school grades. She has spent several years of her education career in the Education Branch at the NASA Marshall Space Flight Center in Huntsville, Alabama, coordinating education outreach programs for students, pre-college science and math teachers, and university faculty. Currently, she is employed by Oak Ridge Associated Universities as a Project Manager for the Oak Ridge Institute for Science and Education.

Larry Goolsby

Larry K. Goolsby received his BS in Industrial Technology and MA in Secondary Education with emphasis in Industrial Technical Education at Tennessee Technological University. Currently he is an Associate Professor in the Basic Engineering Program at Tennessee Technological University. He is serving as a faculty mentor, power user, and member of the Literacy Node for the Institute of Technological Scholarship at Tennessee Technological University. He has taught sessions for the Boys Scout Merit Badge University and served as a Science Fair judge at the local high school.

FLL VALUES AND TEAM SPIRIT JUDGES

Dr. Stephen Stow

Dr. Stephen Stow holds a Ph.D. in geochemistry from Rice University and previously taught geology at the University of Alabama. Since 1980, Dr. Stow has been employed at the Oak Ridge National Laboratory. He has performed considerable geochemical and petrologic research and published papers on volcanic systems.

Kay Johnson

Kaye Johnson is the Director of the Oak Ridge National Laboratory Library and Information Services. She completed her undergraduate work at Mississippi State University and graduate work at the University of Tennessee. Kaye has more than 25 years' experience at the ORNL in finance and program management. As Deputy Director of the ORNL Transportation Technologies Program, she was intimately involved in all aspects of truck and automotive research.

Fred Strohl

Mr. Strohl graduated in 1976 from Maryville College with a bachelor degree in political science. He currently works for Oak Ridge National Laboratory's Office of Communication and Community Outreach. He joined ORNL in 1995 after working almost 20 years for various newspapers in East Tennessee. He is also a former radio news reporter in Maryville

Eric Manneschmidt

Eric Manneschmidt is a technician in the Nuclear Materials Science and Technology Group at Oak Ridge National Laboratory. "Improving the world by breaking things", he performs destructive testing on materials for reactor research programs. In 2001 and 2002, Eric coached FLL teams of the Fellowship Home Educators.