

2007 FIRST LEGO® LEAGUE CHAMPIONSHIP TOURNAMENT JUDGES

FLL CHAMPIONSHIP TOURNAMENT JUDGE ADVISOR

Jeffrey Nowak, IPFW, Associate Professor of Science Education
B.S. Biology from Ohio Northern University
M.A. Geology, Ball State University
Ph.D. Science Education, Indiana University

From 1994 to 1997, Dr. Nowak taught Biology, Chemistry, Geology and Physics at Columbus East High School in Columbus, IN. From 1997 to 1999, he was an Associate Instructor of Elementary Science Education at Indiana University in Bloomington, IN. From 1999 to 2000, he taught Middle School Science and the eighth grade gifted and talented (G&T) science program at Northside Middle School in Columbus, IN. He joined the School of Education at Indiana University-Purdue University, Fort Wayne in 2000 as a Visiting Instructor of Elementary Science Education.

Currently an Associate Professor of Science Education at IPFW, Dr. Nowak teaches EDUC Q200 Science Skills, E328 Science Methods for Pre service Elementary Teaching Majors, E548 Advanced Teaching of Science in the Elementary School and F500 - LEGO® Robotics for Teachers. His research interests include how to incorporate and utilize "best practice" technologies and inquiry based instructional strategies in the K 12 science classroom. Dr. Nowak has recently established the Northeast Indiana STEM Website which will become a resource for all teachers and students who seek information about NE Indiana organizations offering educational and outreach programs. This will be Dr. Nowak's seventh year working with the state FLL tournament and fifth year as Indiana State Judge Advisor.

PROJECT PRESENTATION JUDGES

FLL Championship Head Project Presentation Judge

Chris Douse, IPFW, Assistant Director of Office of Diversity and Multicultural Affairs
B.A. Communication, IPFW
M.S.M., Indiana Wesleyan University

Mr. Douse advises students and coordinates the academic support and various pre-college summer programs supported by the office including the Summer Youth Program. He also serves as a consultant for L.E.A.D. (Leadership, Empowerment, Action, and Development), specializing in the area of communication and empowerment. Mr. Douse was instrumental in collaborating on a number of STEM outreach programs with the ETCS Outreach Office which included his office's 2006 Summer Youth Program that focused on VEX Robotics. He is also a collaborator with the InSITE (Indiana Students Investigating Technology and Engineering) Challenges for high school students. This is Mr. Douse's sixth year as a judge and his fourth year as Lead Judge in the project category.

Scott Armstrong, Director, Special Programs, ITT Industries Aerospace and Communications
BA, Physics, William Jewell College
MS, Physics, University of Missouri
Ph.D., Optical Engineering, University of Rochester

Dr. Armstrong has spent his 33 year career in advanced product development for space based electro-optical and rf/microwave sensor systems. He has been at ITT since 1995 and has led the space systems engineering and the Fort Wayne space engineering groups at the director level before assuming his current position in special programs management. Earlier in his career, he held a number of engineering management positions in the government and at The Aerospace Corporation and Aerojet Electronic System Division in Los Angeles where he and his family lived for 17 years. Scott has been involved in every aspect of product development including concept development, systems engineering, design, integration and test as well as user support. This is Scott's sixth year as a judge in various categories.

Michael Columbia, IPFW, Associate Professor, Department of Chemistry
B.S. Chemistry, Indiana University South Bend

Ph.D. Analytical Chemistry, Iowa State University

Dr. Columbia has taught courses in general chemistry and analytical chemistry at IPFW for fifteen years. His research projects have probed chemistry at solid surfaces with emphasis on catalysis and electrodeposition. He is also interested in developing new laboratory experiences for introductory courses that expand the uses of digital data acquisition and demonstrate the role chemistry plays in producing color in works of art. Dr. Columbia has served as the Judge Coordinator of the Northeast Indiana Regional Science and Engineering Fair for over four years. This is Dr. Columbia's first year as a FLL judge.

Gary R. Dostal, Adjunct Faculty, Ivy Tech Community College
Retired – Verizon Manager of Employee Communications
B.S., M.A, ABD Journalism & Communications, University of Minnesota

Mr. Dostal is a Verizon retiree with twenty-five years as a public affairs professional with managerial experience in both public relations, lobbying and employee communications. Currently an adjunct faculty member in the Communications Department at Ivy Tech Community College, Mr. Dostal has also taught at the University of Saint Francis. Prior to his telecommunications career, he taught for thirteen years in higher education at the University of Wisconsin - River Falls, St. Cloud State University and Normandale Community College where he also was the Director of Forensics and coached several award winning speech teams. This is Mr. Dostal's sixth year as a judge in the project category.

Kim McDonald, IPFW, Professor, Division of Organizational Leadership and Supervision
B.S. Communications
M.S. Communications
Ph.D. Ball State University

Dr. McDonald focuses her research interests on gender issues in management development; ethics in human resource development; and teaching innovations/issues in leadership education. She is the Chair of the Division of OLS and recently successfully facilitated the establishment of a Master Degree program in Organizational Leadership and Supervision at IPFW. This is Dr. McDonald's fourth year as a judge.

John McGauley, Allen County Recorder
B.S. in Journalism, Ball State University

Mr. McGauley was elected in 2006 to a four-year term as Allen County Recorder. He previously served as Allen County Public Information Director, where he oversaw efforts to expand access to County Government, including projects to launch a new County Internet site and to begin broadcasting County government meetings on cable television. A former journalist, he has written about science and technology for The Fort Wayne News-Sentinel, Florida Today, Air & Space Magazine and Space.com. This will be his fourth year as a judge in the project category.

Sarah Nichter, Manager of Information & Development, Ft. Wayne Parks and Recreation
B.A. Journalism, Indiana University
M.A. Professional Communication, IPFW/Purdue University

Ms. Nichter is a corporate communication specialist, who has worked for a number of large firms including Magnavox and GTE. While at these diverse industries, she worked with engineers and wrote feature articles that explained unique technologies to laymen and the general public. Ms. Nichter has also taught college-level communication classes and was the Forensic Speech coach for IPFW's student team. For the past five years, she has served as the Public Information Officer for the Fort Wayne Parks & Recreation Department, where she also generates marketing information and development requests.

Steve Walter, IPFW Professor Director, Center for Systems Engineering
BS Physics, University of Maryland
M.S. and Ph.D. Physics, University of Colorado

Dr. Walter has worked in the NASA Jet Propulsion Laboratory at the California Institute of Technology where he developed new and innovative microwave, millimeter-wave and sub millimeter-wave remote sensing systems. His research and development activities have contributed to a number of systems with applications to climate

change, weather forecasting, deep space communications and national security. In 2000, he joined Northrop Grumman Electronic Systems and has served in a variety of systems engineering and program management roles. Most recently, Dr. Walter managed the space sensors technology office at the Northrop Grumman C4ISR and Space Sensors Division in Azusa, CA. In that role, he was responsible for developing advanced concepts for space and airborne surveillance and remote sensing systems. In 2006 he moved to Fort Wayne to accept the position as the IPFW Professor of Systems Engineering and Director of the Center of Excellence for Systems Engineering.

He is a member of the International Council on Systems Engineering, Project Management Institute, Institute of Electrical & Electronics Engineers, and the American Association for the Advancement of Science. This is his second year judging.

TECHNICAL JUDGES

FLL Championship Head Technical Judge

Michael Kanning, IPFW, Manager of Applications, IT Security Officer

Mr. Kanning holds a BSEE from Purdue University, and an MBA from Indiana University. He has been employed at IPFW since October 2002.

Recent volunteer efforts include working as the NISTEM Technology Consultant for the Northeast Indiana Science, Technology, Engineering, and Math education resource center (www.nistem.org) and President-Elect of the IPFW Alumni Association.

Mr. Kanning is also a 2006 graduate of Leadership Fort Wayne and winner of the Future 40 Award in 2005 recognizing 40 future leaders under the age of 40. He is also founding President of the Young Leaders of Northeast Indiana (www.ylni.org).

This will be his third year as a FLL judge.

Monique Anderson, Indiana Technical Institute

Bachelors Degree, Computer Engineering, Elizabethtown College

Ms. Anderson has designed and written software for the department of defense in her former role as a Software Engineer at Raytheon. In this capacity, she also tested and provided technical support in the field. Her work was vital in developing software that is essential for US troops in the battlefield. This is her fifth year as a technical judge in the area of programming for the Indiana Championship Tournament.

Michael Dobbs, Program Manager for Research and Development, ITT Industries A/CD

B.S., Electrical Engineering, University of Michigan

Mr. Dobbs has 26 years of experience in the development of innovative electrical/optical sensors and automation systems. He began his career at the University of Michigan's Space Physics Laboratory where he developed electro-optical sensors for NASA. His sensors have flown on Rockets, Balloons, on the first Space Shuttle science mission, and on several Satellites, one of which is still operating in orbit after 13 years. Always the entrepreneur, Michael moved on to co-found three high tech companies that developed products and services for commercial space, automotive parts inspection and pharmaceutical research. During that period, he was granted three US patents in automation and robotics. Presently at ITT Corporation, Mr. Dobbs manages research and development projects and is inventor or co-inventor of a half dozen patent applications on laser-based sensors for weather prediction, monitoring climate change, and protection of US troops. This is Mr. Dobb's seventh year as a design judge for the Indiana Championship Tournament.

Ron Goltz, Cutting Tools, Inc.

MBA, Marketing, Indiana University

For the past 26 years, Mr. Goltz has worked in industrial tooling application. His specialty is motion control. He is a principle salesman for all tool products and conducts training on a regular basis for both engineers and technicians for a variety of tool applications including those that involve motion control. This is Mr. Goltz's fifth year as a design judge for the Indiana Championship Tournament.

Vicky Hogge, ITT Space Systems Division
Bachelors Degree, Computer Engineering Technology, IPFW
Associates Degree, Electrical Engineering Technology, IPFW

Ms. Hogge has worked for ITT for nearly 3 years and is currently working as a Systems Design Engineer. She also teaches a Microprocessor class and a Microcontrollers class for IPFW's ECET department. Before graduating from IPFW in 2005 she worked as a lab technician and a teaching assistant for the ECET department. While still in college Ms. Hogge worked as a summer intern with the Air Force One Electrical Engineering group for the Boeing Company.

Ms. Hogge has been a FLL volunteer for several years and this will be her first year as a technical judge in the area of programming.

David Liu, Assistant Professor, IPFW Department of Computer Science
Ph.D. Computer Science and Engineering, Ohio State University

Before joining IPFW, Dr. Liu worked as a principle software engineer (starting as a software engineer) in CompuServe (Verizon), Sterling Commerce (ATT), Lucent (Alcatel-Lucent), Bay Networks/Nortel Networks, and River Delta Networks (Motorola). Dr. Liu's research interests include wireless ad hoc and sensor networks, network security and information assurance, pervasive and grid computing, and optical networks.

John Renie, Torque-Traction Technologies, Inc. Dana Corporation – Maumee, OH
BSAE, MS, Ph.D., Purdue University

Dr. Renie studied aerospace engineering at Purdue University majoring in the area of thermal sciences in general and rocket propulsion in particular. During the period of time between 1984 and 1995, he taught at the University of Illinois and Indiana University-Purdue University Fort Wayne (IPFW).

In 1995, he left the academic environment to work for the Spicer Outdoor Power Equipment Components Division of Dana Corporation located in Fort Wayne, IN. His primary responsibility at Dana was as Lab Manager, with responsibility for conducting quality assurance and product durability tests on drive train components involved in leisure and utility vehicles. He also had the responsibility of conducting finite element analysis on drive train components as well as NVH measurements. Currently he is employed with Torque-Traction Technologies, Inc. - Dana Corporation, Maumee, OH. He is an active member of the Fort Wayne chapter of the Society of Automotive Engineers (SAE) serving as their Chairman for one year and as a Governing Board member for the past decade. He has participated in FLL since 2000 and has also served as a judge for the Northeast Indiana Regional Science and Engineering Fair.

Sheldon Stokes, ITT Corporation
Mr. Stokes works for ITT Corporation. This is his first year as a Technical Judge for FLL.

Tammy Toscos, IPFW Lecturer, Department of Computer Science
M.S. Applied Computer Science, Purdue University Fort Wayne, 2001
B.S. Nutrition & Dietetics, Indiana University, 1988

Ms. Toscos is a Ph.D. student in the School of Informatics at Indiana University, Bloomington where she is studying Human Computer Interaction. She earned her B.S. in Nutrition and Dietetics at Indiana University, Bloomington and her M.S. in Applied Computer Science at Indiana University-Purdue University, Fort Wayne. Ms. Toscos's professional background includes practicing as a Registered Dietitian in various health care environments. She has developed technical skills through her work in the defense industry, manufacturing and most recently as a full time lecturer in the Computer Science department at Indiana University-Purdue University, Fort Wayne. She spent the last two summers working for Intel Research in Seattle developing technology to encourage physical activity. This is her second year as a First Lego League judge.

TEAM WORK JUDGES

FLL Championship Team Work Head Judge

David Neal Brumm, 2006 Retired Teacher, Fort Wayne Community Schools
B.S. Psychology, United States Air Force Academy, 1968
Meteorology major, San Jose State University, 1970
M.S. Education, IPFW, Fort Wayne, 1985

Mr. Brumm was a teacher at South Side High School in Mathematics, General Science, Computer Science, Government, International Baccalaureate Theory of Knowledge, and the Technology Coordinator 1985-2006. From 1983-1986, Mr. Brumm taught at Memorial Park Middle School in the areas of Mathematics, Science, Physical Education, and Home Economics. In addition, Mr. Brumm founded South Side's FIRST Robotics team in 2001. This is his fourth year judging teamwork

Brad Gilbreath, IPFW Associate Professor of Organizational Leadership & Supervision
Ph.D. New Mexico State University
M.S.I.R. Purdue University
B.B.A. and M.B.A, Baylor University

Dr. Gilbreath's research interests include supervisor behavior, workplace psychosocial factors, and performance-based pay. His research has been published in the Journal of Applied Psychology, Work & Stress; International Review of Industrial and Organizational Psychology, Journal of Management Education, Journal of Business and Psychology, and Career Development International. His work background is in human resource management and human resource development in the manufacturing and nuclear industries. This is Dr. Gilbreath's sixth year as a FLL volunteer.

Jim Merz

B.F.A. in Sculpture - University of Michigan

Mr. Merz spent 10 years as a computer programmer creating award winning children's educational software as well as software for medical and research applications. Currently Jim creates kinetic sculptures that use motors and embedded microcontrollers to provide the movement. One of these sculptures uses an enhanced Mindstorms controller programmed with NQC. Jim also uses Legos® when prototyping new sculptures. To see Mr. Merz's sculptures which use computer software for motion, see www.jamesmerz.com. This is his fifth year as a judge in either Team Spirit or Team Work.

Marla Schneider, Marketing Manager

Ft. Wayne-Allen County Economic Development Alliance

Ms. Schneider is a graduate of the Information Technology program at the Rochester Institute of Technology. She has worked as a developer in the nuclear power, education, and marketing industries. She is currently managing all of the marketing and information technology at the Fort Wayne-Allen Economic Development Alliance. This will be Ms. Schneider's fourth year of participation in the First Lego League Competition.

TEAM SPIRIT & Against All Odds Judges

Stacey Glass, ITT Space System Division

M.S. Applied Computer Science, IPFW
B.S. Electrical Engineering, University of South Florida

Ms. Glass has been with ITT since 1997 in System and Software Engineering. Prior joining ITT, Ms. Glass was with General Dynamics. She has been involved in many phases of product development, systems engineering, software design, integration, and test.

This is her second year as a FLL volunteer and her first year judging Team Spirit.

Leslie Mauney, Raytheon Network Centric Systems

Ms. Mauney is the Quality Assurance Manager, Fort Wayne Region. In 2006 she was a Judge Assistant in the Teamwork category. This is her first year judging Team Spirit and Against All Odds.