

## 2008 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 eighth year working with the state FLL tournament and sixth year as Indiana State Judge Advisor.

### PROJECT PRESENTATION JUDGES

#### **FLL Championship Lead 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 seventh year as a judge and his fifth year as Lead Judge in the project category.

**Scott Armstrong**, retired engineer, ITT  
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 is retired from ITT in space systems engineering. 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 seventh 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 second year as a FLL judge.

**Gary R. Dostal**, 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. Since retiring Mr. Dostal has taught at the University of Saint Francis and Ivy Tech Community College. 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 seventh year as a judge in the project category.

**Kim McDonald**, IPFW, Professor, Chair, 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 fifth 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 fifth 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 six 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 third year judging.

## **TECHNICAL JUDGES**

### **FLL Championship Lead Technical Judge**

**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 eighth year as a design judge for the Indiana Championship Tournament.

**David 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. Mr. Brumm has worked with the VEX Robotics Summer Exploration Camp at IPFW for the past two years. This is his fifth year volunteering as a tournament judge.

**Edward M. DeWitt**, Senior Engineering Analyst at Navistar, and Associate; Faculty at IPFW  
B. S. M. E. and M.B.A. from IPFW

Mr. DeWitt has been employed by Navistar for nearly 15 years in the testing area of commercial truck and bus steering and brake systems. Mr. DeWitt has a commercial driver's license, and holds a patent for instrumented testing of vehicle steering systems. He is active in the Society of Automotive Engineers as the chairman of a subcommittee in the SAE Truck and Bus organization. In addition to his employment at Navistar, he teaches an Electrical and Computer Engineering Technology class at IPFW focusing on instrumentation, data acquisition, and data analysis. Mr. DeWitt also volunteers as a judge for the Northeast Indiana Regional Science and Engineering Fair and has been a past FLL judge for qualifying tournaments. This is his first year judging at the state level.

**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 sixth year as a design judge for the Indiana Championship Tournament.

**Vicky Hogge**, Raytheon

Bachelors Degree, Computer Engineering Technology, IPFW  
Associates Degree, Electrical Engineering Technology, IPFW

Ms. Hogge is working as a Systems Engineer at Raytheon, Network Centric Systems and as a Limited Term Lecturer at IPFW for the CEIT department. She has a BS from IPFW in Computer Engineering Technology and is working on her MS in Technology at IPFW.

Ms. Hogge has been a FLL volunteer for several years and this will be her second 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.

**Michelle Parker**, Visiting Instructor, IPFW, Department of Computer and Electrical Engineering Technology & Information Systems and Technology (CEIT)  
B.S. Finance Ball and Sports Management from Ball State  
M.S. in Business Information Technology, DePaul University

Ms. Parker began teaching at IPFW in 2002. Prior to moving to Indiana she worked as a consultant for Anderson (now Accenture) as an Adjunct Faculty member at Illinois State University teaching COBOL, Introduction to Computers, HTML Programming. She began teaching at IPFW and currently works with the following boards and committees: IPFW Child Care Center Advisory Board, IS Curriculum Committee, Distance Learning, Computer Science Professional Advisory Board (and website advisor), and Leo High School Business Academy Advisory Board. She has been a judge for the tournament since 2005.

**John Renie**, Instructor, IPFW Dept. of Engineering  
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 second year as a Technical Judge for FLL.

## **TEAM WORK JUDGES**

**FLL Championship Team Work Head Judge**  
**Robin Hullinger**

**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.JimMerz.com](http://www.JimMerz.com). This is his sixth year as a judge in either Team Spirit or Team Work.

**Trent Parker**, Assistant Professor, IPFW, Department of Human Services  
B.S. Psychology, University of Utah  
M.S. Marriage and Family Therapy, Indiana State University  
Ph.D. Marriage and Family Therapy, Texas Tech University

Dr. Parker is an Assistant Professor in the Human Services Department at IPFW. As a marriage and family therapist, he works with families, couples, and adolescents. He has been teaching at IPFW since 2003. Since 2004, Dr. Parker has been the Chair of the Scientific Review Committee for the Northeast Indiana Regional Science and Engineering Fair for students in grades K-12. This is his first year as a FLL Teamwork Judge.

**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 fifth year of participation in the *FIRST* LEGO® League Competition.

### **TEAM SPIRIT & Against All Odds Judges**

#### **FLL Championship Team Work Lead Judge**

**Art Friedel**, Professor Emeritus, Chemistry, IPFW  
B.S. and M.S. Chemistry Education, University of Pittsburgh  
Ph.D., Science Education, Ohio State University

Dr. Friedel taught general chemistry, methods of science teaching, and supervised student teachers of science in middle and high school since his arrival at IPFW in 1967. Although recently retired, Dr. Friedel continues to be active with many IPFW organizations. He was the Director of the Northeast Regional Science and Engineering for 20 years and serves on the Advisory Committee. Dr. Friedel has been a judge for the FLL tournament since 2003.

**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 third year as a FLL volunteer and her second 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 second year judging Team Spirit and Against All Odds.