Summer Fellow Megan Duke ’14 Published in Mathematics Journal

Megan Duke ’14 had the research findings she produced as a part of the university’s Summer Fellows program published in the highly regarded Rose-Hulman Undergraduate Math Journal.

As a senior mathematics major from Weirton, West Virginia, Duke published an article titled A Non-geometric Switch Toggling Problem. Her research focused on when and how any system of switches can be transformed from one initial configuration to another configuration by always changing a fixed number of switches in any one step. This is important research in the context of genetic toggle switches and how they can be used to predict the conditions necessary for gene bi-stability in gene regulatory networks such as E coli or feline leukemia.

Duke conducted her research as a part of the university’s Summer Fellows program, which allows selected students to work closely and intensively with the university’s faculty on specific areas of research. That research project must be chosen for inclusion in the program by the university’s vice president of academic affairs and the university’s president. Professor of Mathematics Dr. Richard Daquila worked with Duke on the research and also serves as her faculty advisor.

To be published in the Rose-Hulman Undergraduate Math Journal, articles must be submitted to a panel of referees and then selected by the publication’s editor-in-chief. The Journal is devoted entirely to papers written by undergraduates students on topics related to mathematics. Although the authors need not be undergraduates at the time of submission or publication, the work must have been completed before graduation. The publication is sponsored by the mathematics department at the Rose-Hulman Institute of Technology.

In addition, Duke was invited to present her findings at the Mathematical Association of America (MAA) fall meeting, held at Cleveland State University. The MAA is the largest professional society that focuses on mathematics at the undergraduate level. Its members include university, college and high school teachers; graduate and undergraduate students; pure and applied mathematicians; computer scientists, statisticians and many others in academia, government, business and industry. Duke’s presentation was one of only a few to be given by an undergraduate student.

Duke graduated from Muskingum in May with a degree in mathematics and a teaching license. She planned to teach mathematics and is also applying for a Woodrow Wilson National Foundation Fellowship grant that would allow her to both teach and attend graduate school.

IN THE PHOTO: Dr. Richard Daquila and Megan Duke.
ALUMNI NEWS AND UPDATES

Newt and Marilyn Lockhart, 1956

The Lockharts still live in Brevard, North Carolina, at 15 Princeton Lane and still have the same phone number.

Marilyn reports that one of her classmates, Mary Lyon Mace, died in July of this year in Yorktown Heights, New York.

Tom Bressoud, 1983

Tom is serving as Chair of the Department of Mathematics and Computer Science at Denison University. He is also Editor for the ACM SIG on Operating Systems publication, Operating Systems Review.

Jeff Seitter, 1984

Jeff is a Lead Enterprise Architect at LexisNexis and is responsible for all Enterprise Architecture functions for U.S. applications. Throughout his 24 year career at LexisNexis, Jeff has worked on key initiatives such as New Lexis, Lexis.com and Rosetta. Prior to joining LexisNexis, Jeff was a Software Engineer at Advance Computer Systems in Dayton, Ohio specializing in developing information display systems. He was responsible for developing and installing the information display system in NYC Grand Central Station. Jeff and Linda Conley Seitter (1982) have two children; Mark who graduated from Butler Univ. and is working at LexisNexis, and Kim who graduated from Muskingum in May 2014 in Education.

Sherri Finnell Gibson, 1986

Sherri is currently teaching the Transitions classes at Central Ohio Technical College. She is also coaching the varsity volleyball team at River View with her husband, Mark Gibson (‘84).

Rajat Kumar, 1988

Rajat is currently the new Business Development Director at General Mills.

Jim Johnson, 1997

Jim Johnson has accepted the position of director of information and educational technology in the Morgan Local School District in McConnelsville, Ohio. At Muskingum, he earned a bachelor of science degree in computer science with a secondary education certification. He also holds a master of education degree from Ohio University in curriculum and instruction with an education technology specialty. Jim completed his doctoral degree at Indiana State University in curriculum and instruction with an education technology specialty. He can be reached at jimthetechguy@gmail.com

Andrea Richard, 2011

Andrea was a Physics and Mathematics major while at Muskingum. She received her Master of Science degree (May 2014) in Nuclear Physics from Ohio University and has started on her Ph.D work in physics at OU.
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Games By Teens

GamesByTeens is a programming contest that gives teens a chance to program a computer game, even if they have had no experience programming.

The results from the 2013 contest can be found here:

http://gamesbyteens.org/fall-2013-contest-winners/

New Computer Science Curriculum

MACS started offering courses in a newly redesigned computer science curriculum fall 2013. The new curriculum aims to both expand the breadth of subjects students take, adding in Mobile Development, Computer Security, and 3D Game Programming, along with exposing students to practical software engineering techniques throughout all the courses. Students use version control from Computer Science I on, get experience with pair programming and agile development, use MVC architecture, and more."

Muskie Fellows Research

Nick Bulinski is working this summer on a Muskie Fellows research project. He is working on using networks to develop AI for games where hidden information is a big part of the