## **BIO - ECOLOGY, CONSERVATION AND WILDLIFE**



Dr. Pavlowsky, John, Jordan, Trang, Dr. Kissoon-Charles

1<sup>st</sup> Place: John Kincaid, Co-authors – Marc Owen and Bob Pavlowsky

BACTERIAL SOURCE TRACKING OF HUMAN, BOVINE, DOG, AND GOOSE FECAL CONTAMINATION IN THE LITTLE SAC

WATERSHED

Faculty Advisor: Babur Mirza

2<sup>nd</sup> Place: Trang Tran, Co-authors – Jordan Heiman and Bob Pavlowsky

ACCUMULATION OF LEAD IN SYCAMORE TREES ON A MINING-CONTAMINATED GRAVEL BAR IN BIG RIVER, MISSOURI

Faculty Advisor: La Toya Kissoon-Charles

# **BIO - CELLULAR, MICROBIOLOGY AND GENETICS**



(I to r) Megan, Dr. Durham, Harlee

1st Place: Meagan D. Rippee-Brooks

INVESTIGATING THE ROLE OF INFLAMMATORY CYTOKINES DURING INFLUENZA A VIRUS AND ASPERGILLUS FUMIGATUS

**COINFECTIONS IN VITRO** 

Faculty Advisor: Christopher Lupfer

2<sup>nd</sup> Place: Harlee Kelley, Co-Authors: Orion Peterson and Lauren Cornelison

SECONDARY TRAUMATIC STRESS INDUCES GREATER INCREASE IN ERK LEVELS IN FEMALE TRIGEMINAL NEURONS:

POTENTIAL RISK FACTOR FOR OROFACIAL PAIN CONDITIONS

Faculty Advisor: Paul Durham

# **CHEMISTRY**



(I to r) Megan, Carajill

1<sup>st</sup> Place: Megan Prado

QUANTUM YIELD DETERMINATION OF NITROGEN-DOPED CARBON DOTS AND FLUORESCENCE DEPENDENCE ON PH

Faculty Advisor: Adam Wanekaya

2<sup>nd</sup> Place: Carajill Campbell

INVESTIGATION OF THE THERMORESPONSIVE PROPERTIES OF TRI-BLOCK COPOLYMER SOLUPLUS®

Faculty Advisor: Alan Schick

# **COMPUTER SCIENCE**



(I to r Jeff, Dr. Iqbal, Jamie)

1<sup>st</sup> Place: Jeff Dale

MULTI-OBJECTIVE OPTIMIZATION TO FIND BICLUSTERS IN GENE EXPRESSION DATA

Faculty Advisor: Tayo Obafemi-Ajayi

2<sup>nd</sup> Place: Jamie Johnson

TOWARDS AN EASY-TO-USE MICROPLATE IMAGE READING SOLUTION FOR CHEMISTRY EDUCATION

Faculty Advisor: Razib Iqbal

#### **COOPERATIVE ENGINEERING**



(I to r) Konstantin, Keegan, Dersham, Dr. Dua, Ryan, Joe

1st Place: Keegan Allen, Dersham Schmidt, Konstantin Dashkevich

MODEM MADNESS
Faculty Advisor: Rohit Dua

2<sup>nd</sup> Place: Joe Minner and Ryan Kiesling

PLC DISCOVERY STATION USING PROGAMMABLE LOGIC CONTROLLER SYSTEM TO HELP PEOPLE LEARN AND

UNDERSTAND DIGITAL LOGIC Faculty Advisor: Rohit Dua

### **GGP - GEOLOGY**



(I to r) Brooke, Dr. Michelfelder

1<sup>st</sup> Place: Brooke Benz, Co-authors: James Quick, Tyler Sundell

U-PB ZIRCON GEOCHRONOLOGY OF RHYOLITE TUFFS FROM THE BELL TOP FORMATION, SOUTHWEST NEW MEXICO

Faculty advisor: Gary Michelfelder

2<sup>nd</sup> Place: Mackenzie Wegmann, Co-author: Conor O'Dowd

THE PETROLOGY AND GEOCHEMISTRY OF A MIOCENE UNDIFFERENTIATED DACITE IN THE MOGOLLON-DATIL VOLCANIC

FIELD, NEW MEXICO

Faculty Advisor: Gary Michelfelder

# **GGP - GEOGRAPHY, GEOSPATIAL AND PLANNING**



(I to r) Dr. Dogwiler, Bennett, Madeline, Dr. Pavlowsky

1<sup>st</sup> Place: Madeline Behlke-Entwisle

SPATIAL VARIABILITY ON SEDIMENT SIZE AND LEAD CONCENTRATIONS ON A MINING-CONTAMINATED RIVER BAR IN BIG

RIVER, SOUTHWEASTERN MISSOURI Faculty advisor: Bob Pavlowsky

2<sup>nd</sup> Place: Bennett Conway

ASSESSMENT OF OBLIQUE PHOTOGRAPHY IN ENHANCING UAV-BASED PHOTOGRAMMETRY-DERIVED DEMS AND

**ORTHOPHOTOS** 

Faculty advisor: Toby Dogwiler

# **HOSPITALITY LEADERSHIP**



(I to r) Alex, Dr. Kageyama, Dallas

1<sup>st</sup> Place: Alex Baguio, Co-authors: Matésja Daniel, Alex Birge, Guangyi Wang, Idalia Aguilar

AN ANALYSIS OF HOTEL ONLINE REVIEWS

Faculty Advisor: Nancy Kageyama

2<sup>ND</sup> Place: Dallas Schneider, Co-authors: Madison Goodman, Chris Mills, Kennedy Powell, Jordan Moyer, Lindsey Gross

THE IMPACT OF HOTELS' GREEN PRACTICES ON GUEST SATISFACTION

Faculty Advisor: Nancy Kageyama

#### **MATHEMATICS**



1<sup>st</sup> Place: Gabriel Wallace

THE AVERAGE NUMBER OF INTERSECTION POINTS OF A RANDOM POLYGON

Faculty Advisor: Les Reid

# PHYSICS, ASTRONOMY AND MATERIALS SCIENCE



1<sup>st</sup> Place: John Crooke

SEISMIC ANALYSIS OF THE PULSATING SUBDWARF B STAR EPIC 212508753 USING DATA FROM NASA'S KEPLER SPACE

**TELESCOPE** 

Faculty Advisor: Mike Reed