
44TH ANNUAL TENNESSEE STATE UNIVERSITY-WIDE RESEARCH SYMPOSIUM

LIST OF AWARD WINNERS

ORAL PRESENTATION SESSIONS

GRADUATE - AGRICULTURAL SCIENCES - SESSION 1 (G-AGSCI-1)

1st	A062	SURVIVAL AND MOVEMENT PATTERNS OF REINTRODUCED ZOO-RAISED EASTERN HELLBENDERS Marley Machara*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): William Sutton
2nd	A056	BIOCHEMICAL ANALYSIS OF BACILLUS THURINGIENSIS ISOLATE IMC 8 IN PLANT DISEASE PROTECTION AND GROWTH PROMOTION IN TOMATO. Jamilie Robinson*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Margaret Mmbaga, R. Ravi
2nd	A044	SINGLE CELL PROTEOMICS ANALYSIS OF TOMATO POLLEN MICROSPORE UNDER HEAT STRESS. Pyria Thapa*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou, Hui Li
2nd	A051	GENETIC SEGREGATION DETECTED THROUGH SINGLE NUCLEOTIDE POLYMORPHISMS OF SWEET SORGHUM MICROSPORES Dilovan Yahya*, Aron Felts. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Ahmad Aziz
3rd	A020	PHOTOSYNTHETIC RESPONSES OF SWITCHGRASS TO CO₂ CONCENTRATION AND LIGHT Christina Kieffer*, FNU Navneet, Joshua Borlay. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Dafeng Hui

GRADUATE - AGRICULTURAL SCIENCES - SESSION 2 (G-AGSCI-2)

1st	A024	SMALL SIGNALING PEPTIDES MEDIATE NODULATION AND NITROGEN ACQUISITION Divya Jain*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Sonali Roy, Suping Zhou, Ali Taheri, Lena Maria Muller, Xiaofei Wang
2nd	A028	EVALUATION OF FUNGICIDES AND BIOFUNGICIDES TO CONTROL PHYTOPHTHORA ROOT ROT AND RHIZOCTONIA ROOT ROT ON RED MAPLE Madhav Parajuli*. <i>Otis L. Floyd Research Center</i> , College of Agriculture. Advisor(s): Fulya Baysal-Gurel
2nd	A045	PROTEOMICS ANALYSIS OF STRAWBERRY FRUITS EXPOSED TO ESSENTIAL OILS Kajol Pradhan*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Suping Zhou

GRADUATE - AGRICULTURAL SCIENCES - SESSION 3 (G-AGSCI-3)

1st	A066	SWEET SORGHUM BIOFUEL TRAITS: THE JOURNEY FROM SEED TO MICROSPORE Aron Felts*, Dilovan Yahya. <i>Agricultural and Environmental Sciences</i> , College of Agriculture Advisor(s): Ahmad Aziz
2nd	A069	DO DAY-NEUTRAL STRAWBERRY PLANTS RESPOND DIFFERENTLY TO NITRATE (NO₃) VERSUS AMMONIUM (NH₄) FORMS OF NITROGEN? Sunil Gurung*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Dharma Pitchay
2nd	A095	UNRAVELING GENETIC AND BIOCHEMICAL MECHANISMS-INDUCED GROWTH-PROMOTING ENDOPHYTES INVOLVED IN CELL WALLS SYNTHESIS TO IMPROVE SORGHUM FOR SUSTAINABLE BIOENERGY SYSTEMS IN TENNESSEE Adam Traore*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Christine Ondzighi-Assoume, Margaret Mmbaga

GRADUATE ENGINEERING and COMPUTER SCIENCE - SESSION 1 (G-ENGR)

1st	A082	A COMPARISON OF COMSOL AND PYTHON MODELS FOR PVDF BASED SURFACE ACOUSTIC WAVE (SAW) SENSORS WITH SIMULATED RESULTS Omari Paul*, Akinwunmi Joaquim, Michael Ibezim, Dewayne Johnson, April Falconer. <i>Center of Excellence: Information Systems and Engineering Management</i> , Research and Sponsored Programs. Advisor(s): Richard Mu, Richard Mu, Frances Williams, Arend M. van der Zande
2nd	A003	TRAVEL TIME IMPACTS FROM CONVERTING HOV TO HOT LANES IN NASHVILLE METROPOLITAN AREA DURING MORNING RUSH HOURS Hellen Shita*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba

GRADUATE - LIFE AND PHYSICAL SCIENCES (G-LPSCI)

1st	A058	COLLECTION AND CONVERSION OF FOOD WASTE FOR VALUE-ADDED BIOPRODUCTS Phyllicia Hemphill*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Joshua OHair, Xiaofei Wang
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GRADUATE - INTERDISCIPLINARY STUDIES (G-IDSTU)

1st	A039	ASSEMENT OF ECONOMIC IMPACT OF COVID-19 ON AGRICULTURE AND FOOD SYSTEM IN TENNESSEE Kabirat Nasiru*. <i>Agricultural and Environmental Sciences</i> , College of Agriculture. Advisor(s): Prabodh Illukpitiya
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UNDERGRADUATE - ENGINEERING AND COMPUTER SCIENCE - SESSION 1

(U-ENGR-1)

1st	A059	DESIGN OF PASSIVE FLOW SPLITTING MODULE FOR MICROFLUIDICS Tesfaye Segni*, Amyra Black, Amari Meddling. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Landon Onyebueke, Lizhi Ouyang, Show-Mei Lin, Johnathan Reynolds
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UNDERGRADUATE - ENGINEERING AND COMPUTER SCIENCE - SESSION 2

(U-ENGR-2)

1st	A090	DESIGN OF A COAXIAL 3D PRINTING NOZZLE FOR DIRECT WRITE EPOXY RESINS Amairanny Espinosa*, Morgan Quates. <i>Mechanical and Manufacturing Engineering</i> , College of Engineering. Advisor(s): Landon Onyebueke, Lizhi Ouyang, Sitaram Aryal, Anne Munyasia
2nd	A085	POLYVINYLIDENE FLUORIDE (PVDF) MICROFIBERS SYNTHESIZED USING THE HIGH VOLTAGE ELECTROSPINNING TECHNIQUE Michael Ibezim*, Omari Paul, Akinwunmi Joaquim, Dewayne Johnson, April Falconer. <i>Center of Excellence: Information Systems and Engineering Management</i> , Research and Sponsored Programs. Advisor(s): Richard Mu, Frances Williams, Nadya Mason

UNDERGRADUATE - INTERDISCIPLINARY STUDIES (U-IDSTU)

1st	A068	PERCEIVED IMPACT OF STRESSORS ON BLACK ADOLESCENT FEMALE STUDENTS IN CENTRAL ALABAMA DURING THE ONSET OF COVID-19 PANDEMIC Brittany Wiggins*. <i>Sociology</i> , College of Liberal Arts. Advisor(s): Roger Klomegah
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POSTER PRESENTATION SESSIONS

GRADUATE - AGRICULTURAL SCIENCE (G-AGSCI)

1st	A013	ANTIMICROBIAL TRICLOSAN (TCS) INCREASES PRODUCTION OF INTERLEUKIN 1 BETA (IL-1β) IN HUMAN IMMUNE CELLS Wendy Wilburn*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
2nd	A019	HOW MUCH IS SOIL NITROUS OXIDE EMISSION REDUCED WITH BIOCHAR APPLICATION? AN EVALUATION OF META-ANALYSES FNU Navneet*, Christina Kieffer. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Dafeng Hui

GRADUATE - HEALTH SCIENCE -SESSION 1 (G-HSCI-1)

1st	A077	COMPARING POSITIVE REINFORCEMENT AND SENSORY BASED APPROACH: PRODUCING POSITIVE CLASSROOM BEHAVIORS FOR CHILDREN WITH AUTISM Jamia Pennington*, Sandra Dicks*, Kayla Pendleton*. <i>Occupational Therapy</i> , College of Health Sciences. Advisor(s): Lisa Porter
2nd	A099	THE EFFECT OF COMMUNITY-LEVEL POVERTY ON RATES OF TEENAGE PREGNANCY Nikayla Cobb*. Human Performance and Sport Sciences, College of Health Sciences. Advisor(s): Poliala Dickson, Dr. James Heimdal

GRADUATE - HEALTH SCIENCE - SESSION 2 (G-HSCI-2)

1st	A011	THE ROLE OF TLR4 IN PENTACHLOROPHENOL STIMULATION OF IL-1β PRODUCTION IN HUMAN IMMUNE CELLS Aleshia Seaton-Terry*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
2nd	A057	BEST PRACTICES OF EMERGING INTERVENTIONS USED TO IMPROVE WALKING ABILITY IN ADULT ACUTE/SUBACUTE STROKE: A SYSTEMATIC REVIEW Matthew Black*, Casey Kennedy*, Carlo Quintanilla*, Andrew Sanderson*, Derek Smith*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): Karen Smith
3rd	A088	PHYSICAL THERAPY AND TRANSGENDER HEALTH Beshoy Ibrahim*, Jessica Carlson*, Greice de Sa*, Nick Lauren*, Ana Villalva*. <i>Physical Therapy</i> , College of Health Sciences. Advisor(s): David Lehman

UNDERGRADUATE - ENGINEERING AND COMPUTER SCIENCE

1st	A007	ANALYSIS OF FACTORS AFFECTING PEDESTRIAN AND BICYCLE CRASH FREQUENCY Jose Portillo*. <i>Civil and Architectural Engineering</i> , College of Engineering. Advisor(s): Deo Chimba
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UNDERGRADUATE - LIFE AND PHYSICAL SCIENCES

1st	A087	WNT SIGNAL MODULATION IN CHRONIC WOUNDS Ashanti Mitchell*, Karrington Powell*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Sarika Saraswati
2nd	A043	THE SGLT2 INHIBITOR CANAGLIFLOZIN REDUCES ANDROGEN RECEPTOR EXPRESSION AND NUCLEAR LOCALIZATION OF BETA-CATENIN IN HUMAN Kalkidan Bekele*. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen, LaMonica Stewart, Ph.D.
2nd	A012	EFFECTS OF HEXABROMOCYCLODODECANE (HBCD) EXPOSURES ON INTERLEUKIN 6 (IL-6) PRODUCTION IN HUMAN MONOCYTE-DEPLETED PERIPHERAL BLOOD MONONUCLEAR CELLS (MD-PBMCs) Kameron Brooks*, April Falconer-Turner. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
2nd	A017	PARTICIPATION OF TOLL-LIKE RECEPTORS IN TRIBUTYLTIN-INDUCED INCREASES IN INTERLEUKIN 6 PRODUCTION BY HUMAN IMMUNE CELLS. Toran Kirkland*, Aliyah Alcala. <i>Biological Sciences</i> , College of Life and Physical Sciences. Advisor(s): Margaret Whalen
