Curriculum Vitae
John M. Mativo

Mary Frances Early College of Education | College of Engineering
Workforce Ed. & Instructional Tech. Dept. | Env., Civil, Ag., & Mech. Engineering School
University of Georgia

EDUCATION

Ph.D.	2020	Dissertation: System Design of Composite Thermoelectrics for Aircraft Energy Harvesting Mechanical Engineering University of Dayton, Ohio Mentor – Prof. Kevin Hallinan
M.S.M.E	2006	Mechanical Engineering University of Dayton, Ohio
B.M.E	1995	Designed-Based Capstone Project: Design, Construction and Testing of a Rotorcraft Rig in Hover Mechanical Engineering Auburn University, Alabama Mentor- Prof. George Flowers
Ed.D.	1993	Dissertation: Perception of Leadership Skills: Relationships to Postsecondary Vocational Industrial Clubs of America Participation in Georgia Vocational Technical Education University of Georgia, Athens, Georgia Mentor- Prof. Nelson Foel
M. Ed.	1990	Trade and Industrial Education University of Georgia, Athens, Georgia Mentor- Prof. John Scott
B. I. T	1988	Design and Build of a Welding Cart Bachelor of Industrial Technology - Automotive Andrews University, Michigan [University of Eastern Africa, Baraton, Kenya] Mentor – Dr. James Watkins
B. A	1987	Theology Andrews University, Michigan [UEAB]

POSITIONS HELD

Professor 08/2021-present	Joint appointment in Mary Frances Early College of Education (MFECOE), and College of Engineering (CENGR). In MFECOE- Department of Workforce Education and Instructional Technology. Co-Program Coordinator. In CENGR – School of Environmental, Civil, Agricultural, and Mechanical Engineering.
Associate Professor 2013-2021	UGA MFECOE- Career and Information Studies Department Member: Engineering Education Transformations Institute
Assistant Professor 2007-2013	UGA MFECOE Workforce Education, Leadership, and Social Foundations Department. Member: Faculty of Engineering

Associate Professor 2005-2007	Ohio Northern University, Department of Technological Studies, Getty College of Arts and Sciences
Assistant Professor 2002-2005	Ohio Northern University, Department of Technological Studies, Getty College of Arts and Sciences
Senior Lecturer & Chair 1996-2001	University of Eastern Africa, Baraton, Kenya. Department of Technology, School of Science and Technology
Lecturer 1995-1996	University of Eastern Africa, Baraton, Kenya. Department of Technology, School of Science and Technology

OTHER POSITIONS

Research Engineer/ Scientist Contractor 2009-2014 (summers)	Air Force Research Lab, Dayton, Ohio *Thermal Management*
Research Engineer/ Scientist Contractor 2008 (summer)	Air Force Research Lab, Dayton, Ohio *Aircraft Morphing*
1993-1995	Student Research Assistant: Department of Mechanical Engineering; College of Engineering; Auburn University; Auburn, AL
1990-1993	Graduate Assistant: Department of Trade and Industrial Education; College of Education; University of Georgia; Athens, GA
1988-1990	Graduate Assistant: Vocational Education Materials Center; College of Education; University of Georgia, Athens, GA
1986-1988	Automotive Workshop and Garage Manager: Dept. of Industrial Technology; University of Eastern Africa, Baraton, Kenya
1986-1987	Summer Sales Representative: Skandinaviska Bokforlaget, Stockholm, Sweden
1982-1986	Dairy and Farm Student Worker: Department of Agriculture; University of Eastern Africa, Baraton, Kenya
1980-1982	Secondary School Instructor, Changamwe SDA School, Mombasa, Kenya

INSTRUCTION
Courses taught at the University of Georgia

Dr. Mativo's instructional activities range from regular teaching of courses related to students from workforce education and engineering to a doctoral research seminar. As a member of graduate faculty, he supervises masters and doctoral level research/dissertations. He serves or has served as major professor of 10 doctoral students, and has been a committee member for an additional 46 doctoral students that had successful completions (see supervision of student research section).

Courses taught since Fall 2012–Spring2023: Workforce Education Program & UGA Engineering

Course Title/Description	Enrollment	Credit hrs.
CSEE 2220 (WFED 4990): Logic Design	23	69
EBUS 5050/7050: Intro. to Programing for Workforce Ed. (JAVA)	4	12
ENGR 1140: Computation Engineering Methods -MATLAB	163	326
ENGR 2130: Engineering Dynamics	1,487	4,461
ENGR 4900: Special Topics [Energy Conversion of Prime Mover]	3	6
ETES 2320/2320L: Creative Activities for Teachers & Lab	13	39
ETES 5110/7110 Application of Engineering in Technological Studies	1	3
FYOS 1001: Alternative Energy & Sustainability	151	151
FYOS 1001: Product Design and Innovation	47	47
MCHE 4900: Special Topic [Introduction to Vehicle Dynamics]	5	15
MCHE 4960H: Undergraduate Research – Energy Harvesting Electric	3	3
WFED 7200/E: Program Evaluation in Workforce Education	41	123
WFED 7005/9005: Graduate Seminar in Workforce Education	11	33
WFED 8010: Workforce Ethics for a Technological World	29	87
WFED 8020: International Workforce Education	12	36
WFED 8050E: Understanding the Global Marketplace	16	48
WFED 8320/E: Global Innovation, Technology, and Careers	56	168
WEFD 8990: Action Research	18	54
WFED 9000: Doctoral Research	24	75
WFED 9300: Doctoral Dissertation	20	60
WFED 9630: Cri. of Literature	34	102
WFED 9800: Practicum in Workforce Education	6	18
Total (Fall 2012- Spring 2023)	**2,150**	**5,936**

Development of new courses

MCHE 4310/6310: Introduction to Vehicle Dynamics

This course focuses on the dynamics and controls of land vehicles. Activities include a physical understanding of automotive vehicle dynamics such as simple lateral, longitudinal and ride quality models; a design of ground vehicles for directional stability and control; tire mechanics and their effects on vehicle performance; and a synthesis of steering mechanism and suspension system. Digital simulation of vehicle dynamics using computers will be conducted.

WFED 8320: Global Innovation, Technology, and Careers

Explores theories of innovation, innovation types, technological trends, and associated emerging careers. Through problem-based learning challenges, students will develop an understanding of the design process and the integration of disciplines, such as science, technology, engineering, and mathematics often used to solve real-world problems and drive global innovation.

ENGR 4900: Special Topics - Energy Conversion of Prime Mover

To enable the student to develop skills/understanding of topics on an individual or team basis. To enable the student to develop deeper understanding of a specific engineering topic related to the student's academic interest. Published paper with students: "*Conversion of a prime mover: One-third scale model-T from gasoline to electric power." (ASEE, 2019)*

Supervision of Undergraduate Research

MCHE 4960H: Undergraduate Research – Energy Harvesting Electric – Supervised Aman Luthra in a yearlong study. Published paper "*Harnessing Drag Energy in Electric Automobiles." (ASEE, 2020)*

Student advising

Founding Faculty Advisor for UGA Society for Automotive Engineers (SAE) 2014 – present

Our UGA Society of Automotive Engineers (SAE) also known as UGA Motorsports started with four students and through recruitment and student interest, and relevance to real life work, the club averages about 160 students, with about ¾ in Collegiate Design Series where Formula SAE vehicles are designed and built from scratch, and later participate in annual competition with over 100 universities. A quarter of the member students engage in the endurance car, where they modify a stock vehicle into race car and participate in two competitions held each year. In Spring 2020, the University of Georgia, approved UGA Motorsports Formula SAE as an Experiential Learning experience site for students. Since 2018, over 135 Engineering students have used FSAE activities as their Capstone course, with design in the Fall semester and fabrication in the Spring semester. In summer 2019, 5 students and I participated in the annual FSAE competition in Lincoln, Nebraska, the first for UGA. Dean Leo joined us for a day at the race. Since then, UGA has participated annually, except during the COVID-19 disruption. The subsequent competitions have been held at the International Speedway in Brooklyn, Michigan, with UGA represented by me and 11 students in Summer 2021, 7 students in 2022, 11 students in 2023. Through student nomination, I was awarded *SAE Outstanding Faculty Advisor* for the 2019 International recognition.

Faculty Advisor and Co-Advisor for UGA Society of Mechanical Engineers (ASME) 2014 – 2017

Courses taught at the University of Dayton

2008 & 2009 summer; Mechanical and Aerospace Engineering Department

MEE 410L Thermofluids

Courses taught at Ohio Northern University

2002 – 2007; Technological Studies Department

Course	Course
Energy and Transportation	Introduction to Communication Technology
Nonmetallic Materials and Processes	Student Teaching Seminar in Technology
Metallic Materials and Processes	Organization & Methods of Teaching Tech.
Product Manufacturing	Strategies for Teaching Technology Ed.
Advanced Robotics and Automation	Independent Study
Senior Capstone	Internship in Technology

- Advised and supervised 11 students in 4 senior projects in Robotics and Automation
- Supervised 12 student teaching interns
- Supervised 4 students in professional practice

Courses taught at the University of Eastern Africa, Baraton, Kenya

1995-2001; Department of Technology

Courses	Courses
Fundamentals of Electricity	Automotive Electricity and Electronics
Fundamentals of Electronics (DC)	Suspension and Power Train
Circuit Analysis (AC)	Suspension and Alignment
Power Technology	Welding I
Engines I & II	Mechanical Drawing
Engine Performance	Thermodynamics
Automotive Diesel	Industrial Economics
Heating, Ventilation & Air Condition (HVAC)	Research methods & Statistics (Graduate level)

- Supervised over 50 senior projects in Automotive and Electronics majors
- Major professor to Masters – program started (1 student)
- Member Masters' thesis committee (3 students)

ADMINISTRATIVE ACTIVITIES

Co-Program Coordinator Workforce Education program, University of Georgia, Athens, USA
2021 – present

Department Chair Department of Technology, University of Eastern Africa, Baraton, Kenya
1996-2001

SCHOLARLY ACTIVITIES - Publications

Chapters in Books

Mativo, J. M. (2021). Robotics Education as an integrator tool. *Educational Media,Technology Yearbook, Vol. 43, Robert Maribe Branch et al. (Eds): Educational Media and Technology Yearbook,* 978-3-030-71773-5, 503054_1_En, (Chapter 4). Springer Nature

Mativo, J. M., Womble, M., and Jones, K. (2013). Engineering and technology students' perceptions of courses. *International Journal of Technology and Design Education.* Vol.23 No. 1. Online ISSN 1573-1804; Print ISSN 0957-7572, pp 103-115.

Thai, C. N. Mativo, J. M., and Clinton, G. (2010). Robotics-based Curriculum Development for An Immigration Course into Computer Systems Engineering. *Technological Developments in Education and Automation. 1st Edition XIV 537 p. ISBN 978-90-481-3655-1,* pp. 165-171

Journal and refereed conference publications

Swisher, K., Kurz, T., Jayasuriya, S., Covert, J., Mativo, J., Pidaparti, R. & Robinson, D.T. (2023). Middle School Teachers' Perceptions of Computer Vision. In E. Langran (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 2283-2288). New Orleans, LA, United States: Association for the Advancement of Computing in Education (AACE). Retrieved April 10, 2023 from https://www.learntechlib.org/primary/p/222123/.

Kisaalita, W. S., Muyanja, C.K., Mativo, J.M. (2022). Undergraduate Students' Short-Term Inquiry- or Design-Based Overseas Experiences Enhance their Global Engagement Acumen. *European Journal of Engineering Education.* DOI: 10.1080/03043797.2022.2134761

Kisaalita, W. S., Mativo, J. M., & Youngblood, K. M. (2022). What reflective essays tell us about student learning outcomes from inquiry- and/or design-based international engagement projects? *Journal of Community Engagement and Scholarship. 14, **2**, 1-13 (2022). DOI: 10.54656/jces.v14i2.29*

Mativo, J., & Lancaster, J. (2022, August). *Lessons learned in engine temperature control through radiator configurations: A formula SAE design.* Paper presented at 2022 ASEE Annual Conference & Exposition, Minneapolis, MN. https://peer.asee.org/41336

Kurz, T.L., Jayasuriya, S., Rego, J., Jackson, K., Swisher, K., Mativo, J., Pidaparti, R., Robinson, D. & Collins, C. (2021). Changes in Middle School Teachers' Thinking after Engaging in Professional Development Emphasizing Computer Vision. In E. Langran & D. Rutledge (Eds.), *Proceedings of SITE Interactive Conference* (pp. 313-317). Online, United States: Association for the Advancement of Computing in Education (AACE). Retrieved October 30, 2021 from https://www.learntechlib.org/primary/p/220213/

Mativo, J., Hallinan, K., George, U., Reich, G., and Steininger, R. (2021). "Topology optimized thermoelectric generator: a parametric study" Energy Harvesting and Systems. https://doi.org/10.1515/ehs-2021-0002

Luthra, A., Lawrence, T., & Mativo, J.M. (2020). *Harnessing Drag Energy in Electric Automobiles.* American Society for Engineering Education (ASEE) – Energy Conversion Division. Montreal, Quebec, Canada. June 21–24. Paper ID#31199., pp 1-12

Walters, K., Mativo, J. M., & George, U. (2020). *Women enrolled in engineering programs: Their interest and goals.* ASEE, Montreal, Quebec, Canada. June 21–24. Paper ID#28519., pp 1-14

Pierson, J., Mativo, J.M., Chiuz, E., Trudgen, M., & Herring, C. (2020). *Student participation in Formula SAE design, fabrication, and testing as Capstone Experience.* ASEE – Capstone Division. Montreal, Quebec, Canada. June 21–24. Paper ID#30390., pp 1-14

Sirinterlicki, A., Mativo, J.M., Pham, J.T. (2020). *Using Nintendo Switch Development Environment to Teach Computer Game Programming and Virtual Reality.* ASEE. Montreal, Quebec, Canada. June 21-24. Paper ID# 30164., pp 1-12

Mativo, J. M. & Uduak George. (2019). *Influences of female/women engineering professionals at the workplace, home, and community*. ASEE-Women in Engineering Division. Tampa, FL. June 16 – 19. Paper ID#24875., pp 1-15

Mativo, J. M., Plant, D. & Wallon, D. (2019). *Conversion of a prime mover: One-third scale model-T from gasoline to electric power.* ASEE-Energy Conversion Division. Tampa, FL. June 16–19. Paper ID#26398., pp 1-23

Sirinterlicki, A. & Mativo, J.M. (2019). *Critical Thinking in Manufacturing Engineering Education.* ASEE-Engineering Technology Division. Tampa, FL. June 16–19. Paper ID#26737., pp 1-10

Mativo, J. M. & Hallinan, K (2017) Development of Compliant Thermoelectric Generators (TEGs) in Aerospace Applications Using Topology Optimization. *Energy Harvesting and Systems.* 4 (2), PP 87-105. doi.org/10.1515/ehs-2016-0017

Kopcha, T. J., McGregor, J., Shin, S., Qian, Y., Choi, J., Hill, R., Mativo, J. M, Choi, I. (2017). Developing an Integrative STEM Curriculum for Robotics Education Through Educational Design Research. *Journal of Formative Design in Learning, 1*(1), 31-44. doi:10.1007/s41686-017-0005-1

Mativo, J. M. & Asunda, P. (2017) Integrated STEM: A New Primer for Teaching Technology Education (Part 2), *Technology and Engineering Teacher* February, pp. 14-19

Mativo, J. M., Sochacka, N., Youngblood, K., Brouillard, R., and Walther, J. (2017). *Developing real-life problem-based learning (PBL) activities through partnership with industry.* ASEE-Mechanical Engineering Division, Columbus OH. June 25–28. Paper ID#17786., pp 1-13

Mativo, J. M., Hill, R. B., Choi, I., Kopcha, T.J., McGregor, J. (2017). *Lessons learned in teaching science using an integrative approach that used engineering design process*. ASEE – K-12 Division, Columbus OH. June 25–28. Paper ID#20359., pp 1-9

Mativo, J. M., Smith, B., Thompson, E., & Wicklein, R. (2016). A Formative Evaluation of a South East High School Integrative Science, Technology, Engineering, and Mathematics (STEM) Academy., *Elsevier_ Technology in Society* 45(2016) 34-39

Huang, S. & Mativo, J. M. (2016). *Promote students' understanding of engineering dynamics: A true/false reasoning practice.* ASEE- Mechanical Engineering Division, New Orleans, LA. June 26–29. Paper ID#16053., pp 1-7

Huang, S. & Mativo, J. M. (2015). *Impact of reflective learning practices on students' learning of engineering dynamics*. ASEE – Mechanical Eng. Division, Seattle, WA. June 12–17. Paper ID#12469., pp 1-7

Mativo, J. M. & Huang, S. (2015). Learning from Student Projects in Logic Design. *Journal of STEM Teacher Education* Vol. 50, No. 1, Fall 2015. ISSN: 19381603

Asunda, P. & Mativo, J. M. (2015). Integrated STEM: A New Primer for Teaching Technology Education. *Technology and Engineering Teacher* Vol. 75, Issue 4, December/January 2016

Mativo, J. M. (2014). Cognitive responsiveness to human factors engineering design. *Journal of Manufacturing and Design Science* 1(3):32-37; DOI: 10.12966/jmds.12.01.2014

Mativo, J. M. & Huang, S. (2014). *Prediction of students' academic performance: Adapt a methodology of predictive modeling for a Small Sample Size*. Frontiers In Education (FIE). Institute of Electrical and Electronics Engineers (IEEE); Madrid, Spain. October 22-25. pp 1-3.

Mativo, J. M., Hill, R. B., & Godfrey, P. W. (2013**).** "Effects of Human Factors in Engineering and Design for Teaching Mathematics: A Comparison Study of Online and Face–to-Face at a Technical College" *Journal of STEM Education. Vol 14. Issue 4, pp. 34-42*

Mativo, J. M., & Savadatti, S. (2013). *Challenges in Transforming Brittle to Flexible Structures*. American Society for Engineering Education (ASEE) – Mechanical Engineering Division. Atlanta, GA. June 24–26. Paper ID#6890., pp 1-12

Thai, C. N. & Mativo, J. M. (2012). Development of a Senior Level Robotics Course for Engineering Students. *ASEE Computers in Education Journal* Vol. 3, No. 1

Mativo, J. & Wicklein, R. (2011). Learning Effects of Design Strategies on High School Students. *Journal of sTEm Teacher Education, Vol.48, no. 3* (Dec.). pp. 66-92

Mativo, J. M**.,** Womble, M. N., & Jones, K. H. (2011). Engineering and Technology Students' Perceptions of Courses. *International Journal of Technology and Design Education, Springer: April 20*. DOI 10.1007/s10798-011-9167-3. pp. 1- 13

Thompson, E. & Mativo, J. M. (2011). Understanding Designs of Mechanical Systems. *eTEchnology and Engineering Teacher* (May/June)

Smith, N. & Mativo, J. M.(2011). *Statistically Designed Beam Deflection Lab*. International Mechanical Engineering Congress and Exposition. Denver, CO., Nov.11-17

Mativo, J. M. & Smith, N. (2011). *Learning in Laboratory Compliments to Lecture Courses via Student Designed and Implemented Experiments.* American Society for Engineering Education Conference (ASEE), Vancouver, British Columbia, Canada June 27-29

Bellamy, J. & Mativo, J. M. (2010). A Different Angle for Teaching Math. *The Technology Teacher. 69 (2) 26-28*. April.

Mativo, J. M**.** & Sirinterlikci, A. (2010). *Design of a Flexible Thermoelectric Element.* ASEE Louisville, KY June 20-23. asee.org

Sirinterlikci, A., & Mativo, J. M. (2010). *Marrying Manufacturing Programs with Biological and Biomedical Engineering Fields.* ASEE, Louisville, KY June 20-23. asee.org

Sirinterlikci, A. & Mativo, J. M. (2010). *Teaching Reverse Engineering for Non-Industrial Applications.* ASEE, Louisville, KY June 20-23, asee.org

Mativo, J. M (2009). *Engineering Design: The Mechatronics Approach and Cognitive Experience.* ASEE. Austin, TX June 14 – 17, asee.org

Mativo, J. M. & Borrego, M. (2008). *Perceptions of Engineering Education*. ASEE. Pittsburgh, PA June 22 – 25, asee.org

Mativo, J. M. & Kellam, N. (2008). *Responsiveness of Engineering Curricula to Cultural and Societal Changes.* ASEE. Pittsburgh, PA June 22 – 25, asee.org

Mativo, J. M. & Stienecker, A. (2007). *Innovative Exposure to Engineering Basics through Mechatronics Summer Honors Program for High School Students***.** ASEE. Honolulu, HI. June 24 – 27, asee.org

Mativo, J. M. & Sirinterlikci, A. (2006). *Summer Honors Institute for the Gifted.* Proceedings of the 2006 ASEE. Chicago, IL. June 18 – 20, asee.org

Mativo, J. M. & Sirinterlikci, A. (2005). *Pedagogy in Teaching Manufacturing Engineering.* Society of Manufacturing Engineers Technical paper. SME Identification Product ID: TP05PUB238 http://www.sme.org/cgi-bin/get-item.pl? TP05PUB238&2&SME&

Mativo, J. M. & Sirinterlikci, A. (2005). *Teaching Complex Product Design with Art*. 35th ASEE/IEEE Frontiers in Education Conference. FIE. Indianapolis, IN. October 19-22. # F3H-13. http://fie.engrng.pitt.edu/fie2005/papers/1064.pdf

Mativo, J. M. (2005). *Curriculum Development in Industrial Technology: Materials Science and Processes*. Proceedings of the 2005 ASEE. Portland, OR. June 12 -15. #2647. http://www.asee.org/acPapers/2005-746_Final.pdf

Mativo, J. M. & Sirinterlikci, A. (2005). *A Cross-Disciplinary Study via Animatronics*. Proceedings of the 2005 ASEE. Portland, OR. June 12 – 15, asee.org

Mativo, J. M. & Sirinterlikci, A. (2005). A Novel Approach in Integrating Product Design in Curriculum: Toy and Entertainment Animatron Design. *Journal of Manufacturing Systems.* SME Vol. 24 (3). pp. 194 – 200.

Mativo, J. M. (2005). Preparation of an Industrial Technology Teacher and Administrator for a Developing Country. *TechDirections,* December pp. 22 – 25

Mativo, J. M. (2005). Wood Education: A comprehensive Approach for Curriculum Integration. *TechDirections.* February, pp 24- 26.

Mativo, J. M. & Sirinterlikci, A. (2004). *A 6-12 Initiative for integrated study of Engineering Sciences, Technologies & Art.* 34th ASEE/IEEE Frontiers in Education Conference. Work in Progress. Savannah, GA. S3D-16 [1178] http://fie.engrng.pitt.edu/fie2004/papers/1178.pdf

Work Submitted Under Review

Kurz, T., Jayasuriya, S., Swisher, K., Mativo, J., Pidaparti, R., and Robinson, D., (2023). Teachable Machine in the Middle School Science Classroom. *School Science and Mathematics*. Manuscript ID: SSM-IOP-09-2023-016. (under review)

Hoang, N., Anguiano, J., Mativo, J. & George, U. (2023). Understanding motivations/influences for selecting a major for university students in a US Southeast region. *American Educational Research Journal* [under 2nd review]

Kisaalita, W. & Mativo, J. (2023). STEM Students' global awareness development during the four years of their undergraduate study program. *Technology Interface International Journal* (under review)

Other publications

Choi, I., Hill, R., Kopcha, T., Mativo, J., Bae, Y., Hodge, E., . . . Um, K. (2015). *Danger zone: A STEM-integrated robotics unit – My design journal.* Seoul, Korea: RoboRobo Co., Ltd. ISBN: 979-11-86693-01-8

Choi, I., Hill, R., Kopcha, T., Mativo, J., Bae, Y., Hodge, E., . . . Um, K. (2015). *Danger zone: A STEM-integrated robotics unit – My design journal (teacher's ed.).* Seoul, Korea: RoboRobo Co., Ltd. 91 pages

Other edited or co-edited publications

RAIL (2019). My Design Journal - Swahili Translation -Danger Zone: A STEM-Integrated Robotics Unit: (**John Mativo**, Trans.). Athens, GA: RAIL, University of Georgia (Original work published 2015). ISBN: 978-1-7327929-0-6

Grants

Dr. Mativo has consistently and persistently written and submitted funding proposals during each year he has been at the University of Georgia. Dr. Mativo has been PI or Co-PI in submitted grants of over $27 M which are for general STEM enhancement learning scholarships, instruction, basic engineering research, and service. Dr. Mativo's research continues to focus on engineering education and workforce education.

Grants under review

- $1,409,293 (2023-2027) National Science Foundation. Collaborative Research: DRK-12: Design and Development: Building Elementary Teachers Capacity through Bio-inspired Design and Intelligence (BiDiGE) Project ID# FP00027912 (PI- Ramana Pidaparti, Co-PIs: Julie Luft, John Mativo
- $449,942 (2023-2027) National Science Foundation. Phenomenologically-Anchored Inquiry Science for English Learners through Instructional Conversations (PAISELIC). NSF 20-572. (PI-Paula Mellom, CO-PIs John Mativo, Rebecca Hixon)

Grants received

- $103,906 (6/2022-12/2024) Language and Cultural Immersion for K-12 Technology and Engineering Curriculum Development Project for Tanzania 2022 (FP00026047). PI-Mativo, J., Co-PI Branch, R.
- $46,000 (2022-2023) For UGA Motorsports [College of Engineering ($25K), External ($21K)]
- $200,000 (2022 – 2023) IUGB Phase II. U.S. Department of State, FP00024544. PI- Watkins, B., Co-PIs Ness, E., Mativo, J., and Branch, R.
- $94,460 (2021-2023) U. S. Department of Education: Language and Cultural Immersion for K-12 Information and Communication Technology (ICT) for Tanzania (PI- Branch; Co-PI Mativo)
- $36,500 (2020-2021) UGA College of Engineering + External Donors: FSAE and Endurance development(PI- Mativo; Co-PI Trudgen)
- $250,000 (2020-2022) US DEPARTMENT OF STATE, SIV10020GR0113. IUGB-UGA Development focused Learning and US-Style Higher Education in West Africa (FP00022158). PI- Watkins, B., Co-PIs Mativo, J., Branch, R.
- $94,460 (2020 – 22) U.S. Department of Education: Cultural immersion and technology and engineering curriculum (PI- Mativo; Co-PI Branch) #P021A200013
- $1,500,000 (2020 -24) NSF. Collaborative Research: DTI: ImageSTEM: Middle School Teacher and Student's Experiences with Artificial Intelligence via Computational Cameras. PI- Jayasuriya, S. (Arizona S. U); Pidaparti, R. (Co-PI)., Robinson, D., & Mativo, J. NSF# 1949384 & 1949493
- $35,000 (2019-2020) UGA College of Engineering: FSAE and Endurance development (PI- Mativo; Co-PI Trudgen)
- $89,760 (2018 – 20) U.S. Department of Education: Cultural immersion and technology and engineering curriculum (PI- Mativo; Co-PI Branch) #P021A180009
- $40,795 (2018) UGA Graduate School Lab Enhancement (PI – Mativo)
- $22,000 (2018-19) UGA College of Engineering: FSAE development (PI- Mativo, Co-PI Trudgen)
- $6,000 [5,000 Faculty of Robotics; 1,000 College of Engineering], (2017) The Georgia Informatics Institutes Remote Education and Collaborative Human-Robot Research Laboratory, Kyle Johnsen (PI), John Mativo (Co-PI), Javad Mohammadpour (Co-PI), Mark Trudgen (Co-PI), and Dominik May (Co-PI).
- $64,783 (2017) Robot Math: Enhancing Mathematics through Robotics. PI- Kopcha, TJ; CO-Pis Beckmann, S; and Mativo, J.M.
- $7,995 (2015-16). Internal grant from UGA office of STEM. Exploring methods to immerse students in real life learning in dynamics. Co_Pis: Jo Walther, Nicki Sochacka
- $2,500 (2015). COE Maymester. Research support program grant – PI J. Mativo
- $1,000 (2014). Internal grant from Office of STEM Education to promote learning communities.
- $140,609 (2014) Robot STEM Education. Robororobo, S. Korea. PI_ Choi, I; Co_Pis: Hill, R., Kopcha, T., Hodge, E., and Mativo, J.
- $638,254 (2014) DUE-S-STEM Scholar Science, Technology, Engineering, and Math (NSF 12-529). Scholarship for Developing Excellence in Engineering and Physics. PI – Lewis, S. P., Co-Pis: Kutal, C. R; Dennis, B; Foutz, T; Milton, J., and Mativo, J.M.
- $5,000 (2014, Feb.4). COE Maymester Innovations in Instruction Grant – PI J. Mativo

- $600 (2013). Internal grant from Office of STEM Education to promote learning communities. PI: John Mativo
- $10,000 (2013). Northrop Grumman Corporation. Test for Engineering Aptitude in Mathematics and Engineering (TEAMS) annual competition. Mativo (PI), Thai (CO-PI), Vandergrift (CO-PI)
- $5,700 (2012). Summer Research Support Funds (COE_UGA). *Implication and Impact of Teaching Innovation*.
- $6,000 (2010).Northrop Grumman Corporation. *Test for Engineering Aptitude in Mathematics and Engineering (TEAMS)* annual competition. Mativo (PI), Thai (CO-PI), Vandergrift (CO-PI)
- $42,500.00 (2009). National Center for Engineering and Technology – NSF. *Learning Effects and Attitudes of Design Strategies on High School Students*. Wicklein (PI), Mativo (CO-PI)
- $63,500 (2007). Ohio Department of Education. *Summer Honors Institute* – Ohio Northern University. De Luca (PI), Mativo (CO-PI)
- $50,000 (2006). Ohio Department of Education and Ohio Northern University. Part of *Summer Honors Institute*. De Luca (PI), Mativo (CO-PI)
- $ 4,500 (2005) Ohio Northern University. *Teaching with Technology Initiative.*
- $500 (2005) Sally Ride Foundation. For *ToyChallenge for middle school competition*
- $2,000 (2004) Society of Automotive Engineers. *World in Motion Mechanical supplies*.
- $136,409 (2005) Ohio Department of Education and Ohio Northern University. *Summer Honors Institute*. De Luca, Dennis (PI), Mativo (CO-PI)
- $350 (2004) Association of Technology, Management, and Applied Engineering (ATMAE.) *2003-2004 University Division Mini-grant.*
- $1,500 (2004) Ohio Northern University Summer Development Grant. *Development of Metallic and Nonmetallic Materials Laboratory for Technology Curriculum*.
- $500 (2004) Ohio Northern University Summer Development Grant. *Development of Metallic and Nonmetallic Materials Laboratory for Technology Curriculum*.
- $45,000 (2003). Innoplas Corporation, Ohio. *Three injection molds* ($15,000 each)
- $500 (2003) Alvin Rudisill – Epsilon Pi Tau Scholarship Award. *Technology Excellence*
- $55,000.00 (1998 – 2001) Several Grants from USA, Germany, & Kenya. *Technology Department Building Expansion – Electronics and Automotive at UEAB*

Grants submitted, not funded

- $30,000 (2022-2025) Usability Studies Course for Point-of-Care (or Home) Use Medical Devices: Unlocking Entrepreneurial Mind-sets Toward E-Team Formation
- $94,460 (2019) U.S. Department of Education: Cultural immersion and technology and engineering curriculum (PI- Mativo; Co-PI Branch)
- $1,228,484 (2018) NSF Engaging Ele. Sch. Stu. Bldg…inspired Engineering (PI- Pidaparti, Co-PI – Mativo)
- $1,023,500 (2018) NSF Lowering Barriers to Robotics for App. Res. … Immer. Virtl. Reality. (PI- K. Johnsen, Co-PI Mativo)
- $19,000,044 (2017). Advanced Functional Fabrics of America (AFFOA) Fabric Discovery Center (FDC) Minko, S. (PI); Co_Pis: Locklin, J., Bhat, G., Mativo, J., Sharma, S.
- $685,600 (2017). The Bureau of Educational and Cultural Affairs (ECA-ECAPEC-17-015) Chepyator-Thomson, R (PI); Co_Pis: Mativo, J.M. and Dwivedi, P.
- $112,323 (2017). SBIR Phase II: Engaging Undergraduate Engineering Students in Authentic Inquiry, Johnsen, K. (PI); Co_Pis: Savadatti, S.; Mativo, J.
- $299,700 (2017) NSF proposal: Girls' Embodiment of STEM Thinking while Using Robots (GESTURE). PI- Kopcha, TJ; co-PI-Mativo, J.

- $2,000,000. NSF proposal (2015-16) for establishing an Engineering Research Center at UGA. PI- Jason Locklin. Proposal # FP00006608
- $142,660.00 (2014). To NSF. The Globally-Connected Stem Classroom: Cultivating R2c2 (Respectful, Reflective, Collaborative, And Creative) Student Minds For A Sustainable Future. PI: Ikseon Choi, CO-Pis: T. Kopcha, & John Mativo
- $448,555.00 (2013). To National Science Foundation. The Globally-Connected STEM Classroom: Cultivating R2C2 (Respectful, Reflective, Collaborative, and Creative) Student Minds for a Sustainable Future. PI: Ikseon Choi, CO-Pis: Emily Hodge, John Mativo, Theodore Kopcha
- $2,351,718 (2011). To National Science Foundation – DR K-12. *Experience STEM Integrated Engineering Design Problem Solving.* Wicklein, R. - PI; Choi, I- Co-PI; Mativo, J – Co-PI.
- $39, 713.00 (2010). To Utah State University (NCETE). *Learning Effects of Design Strategies on High School Students*. Mativo, J. – PI; Wicklein, R. Co-PI
- $2,266,945.00 (2010). To National Science Foundation – *DR K-12. STEM Integrated Engineering Design Problem Solving.* Wicklein, R. - PI; Choi, I- Co-PI; Gattie, D. Co-PI; Mativo, J – Co-PI.
- $195,323.00 (2010). To US Dept. of Education. *Mobility Independence: The Intelligent Wheelchair System.* Mativo, J. – PI; Chase, P. Co-PI; Patrick, A – Co-PI.
- $595,739.00 (2009). To US Dept. of Education. *Mobility Independence: The Intelligent Wheelchair System.* Mativo, J. – PI; Chase, P. – Co-PI; Patrick, A – Co-PI.
- $20,000. (2008). To Hewlett Packard Corp. *Engineering Design Learning Enhanced Through A Wireless Tablet-PC Technology Environment*. Mativo, J. – PI.
- $300, 000. (2006) From National Science Foundation (05-621) *Information Technology Methods in STEM Curriculum (ITMSTEMC)*. Mativo, J. – Principal Investigator, Stienecker, A. Co-PI.
- $361,620 (2005) From National Science Foundation (04-611): *Integrated Study of Engineering Sciences, Technologies, and Art via Animated Toys and Robots*. Mativo, J. (PI), Sirinterlikci, A. Co-PI.
- $100,000 (2005) From Hewlett Packer: *HP Technology for Teaching Grant Initiative – 2005 Higher Education Edition*. Mativo (CO-PI), Jao (Co-PI).
- $39, 367 (2004) To Coca-cola Foundation. Mativo (CO-PI), Sirinterlikci (Co-PI)
- $300,000 (2004) To National Science Foundation (02-147): *Integrated Study of Engineering Sciences, Technologies, and Art via Animated Toys and Robots*. Mativo (PI), Sirinterlikci (CO-PI)
- $15,000 (2004) Martha Holden Jennings Foundation, Cleveland, OH. – Mativo (PI), Sirinterlikci (Co-PI)

Recognitions and outstanding achievements

- University level: Josiah Meigs Distinguished Teaching Professor, UGA, Jul 2021
- University level -Member: UGA Teaching Academy, Inducted on November 14, 2019
- International level: SAE Outstanding Faculty Advisors Program, Society of Automotive Engineers Award (2019)
- University level: Richard B. Russell Excellence for Undergraduate Teaching Award – 2017
- College Award: Faculty Senate D. Keith Osborn Award for Teaching Excellence in the College of Education, UGA, 2015 [Associate Level]
- College Award: Faculty Senate D. Keith Osborn Award for Teaching Excellence in the College of Education, UGA, 2012 [Assistant Level]
- Order of the Engineer: UGA Engineering May 9, 2008
- Sigma Xi: Science Research Honorary Society, 2004

- Epsilon Pi Tau: International Honorary for Professions in Technology, 2003
- Phi Kappa Phi: Honor Society for Academic Excellence, 1992
- Phi Beta Delta: Honor Society for International Scholars, 1992

Areas in which research is done
As a scholar in workforce education and engineering. Research is especially focused on learning science, technology, engineering, and mathematic (STEM) content, particularly in engineering and technology career pathways. Two related main areas of focus: (1) instruction and curricular development for students in workforce education and engineering, and (2) research engagement in basic engineering, of particular interest is energy harvesting. The two strands strengthen each other by providing real life engineering applications to the courses taught. This provides students with coursework relevant to the existing workforce.

University of Georgia Motor Sports (UGA MS)
Dr. Mativo is founding Faculty Advisor for the UGA MS. From its inception in Fall 2014 (stemming from his Dynamics Course), he has been supported by the College of Engineering and external donors to help build the UGA MS. UGA MS has two main divisions namely the Collegiate Design Series (CDS) of Society of Automotive Engineers; and the Endurance Racing. In our CDS division, we have successfully built three formula SAE ICE vehicles from scratch. We have participated in four events 2019, 2021, 2022, and 2023. Also, in this series, we have built a BAJA SAE vehicle, and have built a Formula SAE EV powertrain. In the Endurance race division, we have modified a Mustang and used it in Champcar competitions since 2019. We are currently modifying a BMW for the same purpose. Annually, about 160 students participate in the UGA MS. Also, the Formula SAE has been designated as an experiential platform where university students can get credits. Several papers have resulted from activities conducted at the UGA MS.

Supervision of student research
During his tenure at the University of Georgia, Dr. Mativo has served on 56 doctoral committees, 10 as Major Professor*, that had successful completions. He currently serves on 10 doctoral committees, 7 of which he is chair.

Completed Ed. D or Ph. D Programs – Committee Served On

Name (Major Professor) *	Department	Year Completed	Count
Kesse, Moulare*	CIS [Workforce Education (WE)]	2023	56
Malone, Kendra	CIS	2023	55
Turnispeed, Melissa	CIS	2023	54
Wilson, Greg	CIS	2022	53
James, Shuntavia*	CIS	2022	52
Boyle, Tami*	CIS	2022	51
Jackson, Angelique H.*	CIS	2022	50
Schenk, Raymond*	CIS	2022	49
Williams, Alexis	CIS	2022	48
Robertson, Sally	CIS	2022	47
Hearn, Luke	CIS	2021	46
Highnote, Connie	CIS	2021	45
Coes, Alvie	CIS	2021	44
Collins, Sharron La Sha	CIS	2021	43
Landers, Rachael	CIS [Learn., Dsg., & Tech (LDT)]	2021	42
Daniel, Jeremy	CIS [Workforce (WE)]	2021	41
Goad, Stephen*	CIS (WE)	2021	40

Bishop, Samantha	CIS (WE)	2020	39
Ocak, Ceren	CIS (LDT)	2020	38
Yassine, Brianne	CIS (LDT)	2020	37
Woodley, Kylea	CIS (WE)	2020	36
Conley, Lisa D	CIS (WE)	2020	35
Coppet, Tycie	CIS (WE)	2020	34
Grady, Zeketra	CIS (WE)	2020	33
Qian, Yingxiao (Karen)	CIS (LDT)	2019	32
Turman, Jason Kyle	CIS (WE)	2019	31
Todd, Andrew W*	CIS (WE)	2019	30
Choi, Hungyoon	CIS (WE)	2019	29
Pollard, Ashley*	CIS (WE)	2018	28
Parks, Valencia H	CIS (WE)	2018	27
Harbin, Tonia*	CIS (WE)	2018	26
Mercer, Lynn	CIS (WE)	2017	25
Kiprono, Felisters	CIS(WE)	2017	24
Rivers, Cynthia H.	CIS(WE)	2017	23
Dongho, Kim	CIS(LDT)	2017	22
Shin, Seungki	CIS (LDT)	2017	21
Kwame, Nti	CIS(WE)	2016	20
Xing, Xue	CIS(WE)	2016	19
Schmidt, Christine	CIS(WE)	2016	18
Schmidt, Timothy	CIS(WE)	2016	17
Smith, Zach*	CIS(WE)	2015	16
Cook, Michael	CIS (WE)	2015	15
Wen, Jiaxin	CIS(WE)	2015	14
Wilson, Gregory	CIS(LDT)	2015	13
Gurney, James	CIS(WE)-SF	2015	12
Thompson, Ezra	CIS (WE) –TE	2014	11
Koch, Joanna Greer	CIS (WE) – SF	2013	10
Carr, Ashley	CIS (WE) –SF	2013	9
Kang, Byeonggu	CIS (WE)	2012	8
Lui, Yu	CIS (WE)	2012	7
Pontzer, Mary Michael	CIS (WE) –SF	2011	6
Park, Jae Hyun	CIS (WE)	2011	5
Gemici, Sinan	CIS (WE)	2010	4
Washington, Cheryl Denise	CIS (WE) –BE	2010	3
West, David	CIS (WE) –AE	2009	2
Camick, Paul William	CIS (WE) –TE	2009	1

Ed.D. and Ph. D Committee Currently Serving On or *chairing as major professor

Count	Name	Program	Expected Completion
10	Todd, Melissa	WE	2024
9	Griffing, Steven*	WE	2026
8	Bayah, Daniel K*	WE	2026
7	Rutter, Mikella*	WE	2024
6	Lowe, Benjamin*	WE	2024
5	Kelly, Laura*	WE	2023

4	Lewis, Quinesha*	WE	2023
3	Shan, Samuel Shi Huh*	WE	2023
2	Edwards, Jennifer C	WE	2022
1	Joyner, Tracy L	WE	2022
	Wooden, Jennifer	WE	2021**completed EdS
	Rankins, Juliette	WE	2021**completed EdS

Editorship or editorial board member/ journal reviewer

- Associate Editor - *Journal of Research in Technical Careers* 2016–2018
- Reviewer for *Journal of Research in Technical Careers* from 2016–2019
- Reviewer for the *TeachEngineering* Digital Library, a K-12 engineering resource 2010 to present
- Reviewer for the *Journal of Engineering Technology*, a refereed journal for the Engineering Technology division of the ASEE 2006–2014
- Reviewer: *Journal of Pre-College Engineering Education*, a refereed Journal 2010–2014
- Reviewer for *American Society for Engineering Education*, Mechanical Engineering Division, Engineering Technology division, and K-12 Division. 2007–present
- ITEEA CTTEE reviewer 2012–present

Conference papers and presentations

Suren Jayasuriya, Kimberlee Swisher, Joshua Rego, Sreenithy Chandran, John Mativo, Terri Kurz, Cerenity Collins, Dawn Robinson and Ramana Pidaparti. (2023, August). *PROGRAMNAME: Integrating Computer Vision, Machine Learning, and Computational Cameras Concepts into Middle School Lessons.* Educational Advances in Artificial Intelligence [EAAI-24] (under review for Feb. 2024)

Suren Jayasuriya, Kimberlee Swisher, Joshua Rego, Sreenithy Chandran, John Mativo, Terri Kurz, Cerenity Collins, Dawn Robinson and Ramana Pidaparti. (2023, August). *ImageSTEAM: Teacher Professional Development for Integrating Computer Vision, Machine Learning, and Computational Cameras Concepts into Middle School Lessons.* Educational Advances in Artificial Intelligence [EAAI-24] (under review for Feb. 2024)

Mativo, J. M., & Pidaparti, R., & Swisher, K. A. (2023, June), *Board 166: Experiences from ImageSTEAM Workshop for the Middle School (Work In Progress)* Paper presented at 2023 ASEE Annual Conference & Exposition, Baltimore , Maryland. https://peer.asee.org/42520

Pidaparti, R., Mativo, J. M., Swisher, K. A., & Jayasuriya, S. (2023). Middle School Teachers Lesson Modules on Artificial Intelligence (AI) topics from Summer Workshop. ASEE-SE (March 12-14)

Jayasuriya, S., Kurz, T.L**.,** Swisher, K., Mativo, J., & Pidaparti, R. (2023, January). *Artificial Intelligence Activities for Teachers: What and How They Learned*, Paper presented at the Hawaiian International Conference on Education, Honolulu, Oahu, Hawaii.

Swisher, K., Kurz, T., Jayasuriya, S., Covert, J., Mativo, J., Pidaparti, R. & Robinson, D.T. (2023). *Middle School Teachers' Perceptions of Computer Vision*. Paper presented at Society for Information Technology and Teacher Education (SITE) annual conference New Orleans, LA, United States.

Collins, C., Robinson, D., Mativo, J., Pidaparti, R., Jayasuriya, S., Swisher, K., & Terri, K. (2022). Using Affect Control Theory to Investigate the Identity Impacts of a Middle School STEM Workshop. In *Annual Meeting of the Southern Sociological Society*

Mativo, J., Robinson, D., Collins, C., Pidaparti, R., Swisher, K., Jayasuriya, S., Rego, J., O'Donnell, M., Barnard, W., Kurz, T. (2022). AI through Computational Cameras for K6-K8 Teachers and Students: Preliminary Results from Virtual Workshop. ASEE -SE (March 14-15).

Jayasuriya, S., Pidaparti, R., Mativo, J., Swisher, K., & Robinson, D. (2022). *Middle School Teachers' and Students' Experiences with Artificial Intelligence via Computational Cameras*. Poster session presented at the meeting of NSF-stelar

Walters, K., Choi, I., Ocak, C., Mativo, J., Kwon, S., Truong, E. (2019, October). *A case study for Train-the-Trainer and teacher-empowerment in Honduras: 6th grade STEM-integrated robotics curriculum implementation.* Poster presented at the annual conference of the Association for Educational Communications and Technology, Las Vegas, NV.

Kopcha, T., & Mativo, J. (2018, October 1). Integrating Robots into Elementary Mathematics. In *Georgia STEM Forum* State Conference. Athens, GA

Mativo, J. M. & Smith, B. (2016, April 8–12). *Evaluation of an integrated STEM (Science, Technology, Engineering, Math) Program: The students' perspective*. American Educational Research Association (AERA). Washington DC.

Choi, I., Kopcha, T., Mativo, J., Hill, R., Hodge, E., Shin, S., Way, B., McGregor, J., Kim, S., Choi, J. & Bae, Y. (2016). Learning Computer Programming in Context: Developing STEM-integrated Robotics Lesson Module for 5th Grade. In *Proceedings of Society for Information Technology & Teacher Education International Conference 2016* (pp. 68-74). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE). https://www.learntechlib.org/p/171653/

Mativo, J.M., & Hallinan, K. (2016, September 6). Modeling thermoelectric topology optimization for use in vibratory environments. Energy Harvesting Workshop. Arlington, VA.

Mativo, J. M., Walther, J., & Sochacka, N. (2016, February 26). Experiential learning: Developing real-life problem-based learning activities through partnership with industry- Engineering Dynamics. Presented at the Fifth Annual UGA STEM Institute on Teaching and Learning: Increasing the pool of STEM Talent.

Seungki, S., Kopcha, T.J., Choi, I., Mativo, J., Hill, R., Qian, K., & McGregor, J. (2016, April 1). Childrens' computational thinking during a robotics activity. Poster presentation at UGA COE Research Conference.

Mativo, J. M. (2015, April 8–10). Panelist (Invited): *Matching individual and organizational needs.* UZURI Conference: Strength in Numbers, Pittsburgh PA.

Mativo, J. M. & Huang, S. (2014, October 17). *Prediction of students' academic performance: Adapt a methodology of predictive modeling for a Small Sample Size*. College of Education innovation in Teaching Conference, UGA. Athens, GA.

Mativo, J.M., & Camick, P. (2014, October 17). *Test of engineering aptitude in mathematics and science*. GA Engineering and Technology Education Association. Savannah GA.

Mativo, J.M., & Thompson, E. (2014, March 26–29). *Lessons Learned from ongoing Integrated STEM cases.* International Technology and Engineering Education Association (ITEEA), Orlando, FL.

Mativo, J. M. (2013, October 28–November 2). *Contemporary engineering education trends in the United States of America*. 3rd Global Engineering Education Forum. Seoul, Korea.

Mativo, J. M. (2013, November 1). *Workshop seminar on appropriate technology*. Yonsei University (Mechanical and Materials Engineering). Seoul, Korea.

Mativo, J. M. (2013, March 6–8). *Investigating optimization*. International Technology and Engineering Education Association (ITEEA), Columbus, OH.

Scott, G., Mativo, J. M., & Lammi, M. (2013, March 6–8). *But I don't have a degree in engineering!* International Technology and Engineering Education Association (ITEEA), Columbus, OH.

Mativo, J. M. & Wicklein, R. (2012). Curriculum Dilemma for Undergraduate Education.(International Technology and Engineering Education Association (ITEEA). Long Beach, CA, March 15 – 17

Mativo, J. M. & Wicklein, R. (2011). Convert Waste Heat to Electricity: Thermoelectric Generator. ITEEA, Minneapolis, MN, March 23-26

Mativo, J. M. & Griffing, S. (2010). *Design for a Practical Green Energy Education*. ITEEA Conference. Charlotte, NC March 17-19

Wicklein, R. & Mativo, J. M. (2010) *Learning effects of Design Strategies on High School Students*. ITEEA. Charlotte, NC March 17-19

Mativo, J. M (2009). *Everyday Products: Best Engineering Design Concept Exposure*. ITEEA. Louisville, KY March 25-27

Mativo, J. M. (2008). *Cognitive Responses to Engineering Designed Products*. The 2008 IAJC-IJE International Conference. ISBN 978-1-60643-379-9 Paper #090, IT P401

Thai, C. N., Mativo, J. M., and Clinton, G. (2008). *Robotics-based Curriculum Development for An Immigration Course into Computer Systems Engineering*. International Joint Conferences on Computer, Information, and Systems Science, and Engineering. _ December 2008.

Mativo, J. M. (2008) Day long Workshop. Georgia Engineering and Technology Education Association, Fall Conference – Rockdale, GA October 2008

Mativo, J, M. (2008) Mechatronics: A Necessity for Engineering and Technology. ITEEA March 2008. Salt Lake City, UT.

Mativo, J. M., & Mativo, V. V. (2007). *Perceptions of Engineering Education*. ITEEA., San Antonio, TX. March 15-17, 2007

Mativo, J. M. & Sirinterlikci, A. (2005). *What makes a Good Materials Learning Experience in a Technology Program?* Proceedings of the 2005 Materials Science & Technology Annual Conference & Exposition. Pittsburgh, PA. September 25 – 28. pp 81 – 91.

PUBLIC SERVICE

- UGA Undergraduate Admissions Faculty Presenter, March 28, 2022
- Keynote Speaker at 7th International Conference on Africa & Its Diaspora (2021 BICAID) Biannual International Conference on Africa and It's Diaspora, at African Studies Institute, University of Georgia. Title: Openness to Learning and practice Nov. 12, 2021
- Keynote Speaker at ChargeNorth STEM, North Gwinnett High School March 2020
- Coordinator, Test for Engineering Aptitude in Mathematics and Science, 2009–2019
- Judge, UGA Global Education Forum, Annually - March, 2014–March 2019
- Judge, 2018 Georgia Technology Student Association National Conference, Atlanta, GA
- Judge, 2nd Annual RAIL Robotics Competition, May 17, 2016, SIMS academy of Innovation and Technology, Barrow County
- Volunteer, FIRST Robotics Competition, UGA, April 13–16, 2016
- Volunteer, FIRST Lego League, State Competition, UGA, Feb. 2013 - Feb 5, 2016
- Reviewed (2015) several articles for ASEE, FIE, and ITEEA
- Appointed National Science Foundation Primary Panelist for Advancing Informal STEM Learning (AISL), March 20–21, 2014
- Judge, Technology Student Association, Electrical Applications, March 14. '14; March 2015
- 2013 Invited Panelist, Dekalb County STEM initiative (October, 23)
- 2013 Science Venture Program. Presenter at Cedar Shoals High School – Invited (March, 5)

PROFESSIONAL SERVICE

- Chair Search Committee for Workforce Education Position, Career and Informational Studies Department, 2021 – 2022.
- Member- FLRC- Mr. Adam Wineland for promotion to Senior Lecturer (Member), January 1, 2022–December 31, 2022 – ECAM College of Engineering
- Chair- Dr. Eliza Banu for promotion to Senior Lecturer (Chair), January 1, 2022–December 31, 2022 – ECAM College of Engineering
- Member -UGA Teaching Academy Executive Committee 2022-2025
- Participant in search for Vice Provost for Academic Affairs 2022
- Member- First Year Odyssey Advisory Committee 2021-2024
- Member- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) 2020-2022.
- Member Search Committee for Associate Director for Active Learning Initiatives position, 2022
- Member FYOS Advisory Board, UGA (2021-2024)
- Chair Search Committee for Workforce Education Position, Career and Informational Studies Department, 2021 – 2022.
- Member QEP (Quality Enhancement Plan) Development and Implementation Committee, UGA. October 2020 - 22
- Reviewer, UGA Office of Research. Faculty Seed Grants in the Sciences FY21- 2020
- Member, T^2 Summit: A Technology and Talent Automotive/Motorsports Summit, UGA College of Engineering & Industry initiative 2019-present
- Member, Science Education search committee 2019 –2020
- Advisory Board Member, Georgia Educators in Mathematics and Science, UGA 2018–2019
- Member, UGA PRAC reviewer for African Studies Institute in the College of Arts and Sciences 2016–2018
- Member, CIS - Workforce Education search committee 2018–2019
- Member, CIS - Learning, Design, and Technology search committee 2017–2018

- Member, RAIL outreach program to San Pedro Sula, Honduras – May 2018
- Member, College of Education Senate 2017 –present
- Invited… Panelist for UGA STEM initiative – experiential learning, Feb 26, 2016
- CIS, Research and Scholarship Committee, Member
- CIS, Awards Committee: Member 2014–2016
- Torrance Chair, Search Committee Member 2015–2016
- Founding Advisor (2014-present), Society of Automotive Engineers, C. of Engineering, UGA
- Co-Advisor (2014–2016, American Society of Mechanical Engineers, C. of Engineering
- Elected Member, 2014–2017 – UGA University Council Standing Committee on Facilities
- Co-Chair UGA University Council Standing Committee on Facilities 2016–2017
- Reviewed 9 articles for summer 2014 Innovation Instruction Summer Grants: Office of the Vice President for Instruction UGA, March 28, 2014
- Reviewed 2 articles for Faculty of Robotics UGA- Grants, 2014
- COE Promotion & Tenure committee, 2014
- Appointed CIS Peer Evaluation Committee served Feb 13 to 17, 2014.
- 2013 Secured UGA Takshila (India) Partnership with Dr. Branch and Rajesh Kumar
- Elected Member, 2013–2016 – UGA University Council Standing Committee on Intercollegiate Athletics
- Elected Member, 2012–2015 – UGA University Council
- Member, 2012–2014 – COE Student Appeals Committee
- Recruit at UGA Griffin-Bionic Educator Conference, April, 26, 2013

Selected Media

Motorsports

UGA Motorsports story by students: https://www.uga-motorsports.com/

UGA Motorsports story by Grassroots Motorsports: https://grassrootsmotorsports.com/articles/how-university-georgia-students-turn-stem-classes-/

UGA Motorsports story by MFECOE: https://coe.uga.edu/news/2021-05-associate-professor-turns-stem-education-into-race-cars/

UGA Magazine “Georgia” (Cover page + pp 22-27): https://ugamagazine.uga.edu/issue/winter-2022

Robotics Education

2019 story by U.S. Dept. of Ed.: https://content.govdelivery.com/accounts/USED/bulletins/24dfe99

2019 videos of the Tanzania Group Projects Abroad -Fulbright Hays program
https://www.youtube.com/channel/UCpVP4Kk_S105buF4Q9Qffaw/videos

2023 Tanzania TV News 24 documentary of Mwenge Catholic University Work Cell and technology (in Kiswahili). Showcasing work cell technology as they promote the university:
https://www.youtube.com/watch?v=qZ2_1H0Twq0

Artificial Intelligence

2023 website with artifacts produced through the AI workshop: https://www.imagesteam.org/