
CAN SAYGIN

SENIOR VP FOR RESEARCH AND DEAN OF THE GRADUATE COLLEGE
PROFESSOR OF MANUFACTURING AND INDUSTRIAL ENGINEERING
THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY (UTRGV)

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Academic Appointments (2005 – 2024)

8/2022 – present: Professor of Manufacturing and Industrial Engineering, College of Engineering and Computer Science, UTRGV
09/2012 – 7/2022: Professor of Mechanical Engineering, University of Texas at San Antonio (UTSA).
08/2006 – 09/2012: Associate Professor (tenured) of Mechanical Eng, UTSA.
09/2005 – 08/2006: Associate Professor (tenured), Missouri University of Science and Technology, Engineering Management and Systems Engineering Department, Rolla, Missouri.

Administrative Appointments (2013-2024)

08/01/2022 – present: Senior Vice President for Research and Dean of the Graduate College, UTRGV.
04/01/2020 – 07/31/2022: Senior Associate Vice President for Research, UTSA.
07/01/2019 – 03/31/2020: Senior Vice Provost for University Planning, UTSA.
06/14/2018 – 02/25/2019: Interim Dean of Graduate School, Provost Office, UTSA.
01/03/2018 – 06/30/2019: Senior Vice Provost for Institutional Intelligence and Strategic Initiatives, President's Office, UTSA.
11/13/2017 – 03/01/2018: Advisor to President for Strategic Initiatives, President's Office, UTSA.
09/15/2016 – 03/01/2018: Associate Vice President for Research, Office of Sponsored Project Administration (OSPA), UTSA.
09/01/2015 – 11/13/2017: Director, Center for Advanced Manufacturing & Lean Systems (CAMLs), UTSA.
05/15/2013 – 09/15/2016: Assistant Vice President for Research, UTSA.

Recent Experience Relevant to the EPA Proposal

Over the last 25 years as a research faculty and an administrator at various levels, he has extensive experience regarding project management of large-scale initiatives. He developed and facilitated the execution of a framework ([click here](#)), which was instrumental for the University of Texas at San Antonio (UTSA) to reach Carnegie R1 (Tier-1 Research Institution) status in 2021-2022. As a faculty member, he has directed several projects funded by the Air Force Research Lab, National Science Foundation, U.S. Department of State, U.S. Department of Defense, the Boeing Company, the Ford Motor Company, UT Health San Antonio, Texas Higher Education Coordinating Board, and by various manufacturing industries. Currently, he serves as PI to two institutional level grants at UTRGV: The NSF grant is entitled “HSI Institutional Transformation Project: Improving Undergraduate STEM Education Through Family-Centered Pedagogy” (\$3M/5 years) and the new Department of Education grant (starting 9/1/2024) is entitled “Target 2030: The University of Texas Rio Grande Valley (UTRGV) Research Strategic Plan to Reach R1 Status” (\$5M/4 years).

As Senior VP for Research, his institutional-level leadership is focused on taking UTRGV to R1 status with a portfolio of initiatives focused on faculty research development, doctoral program development and degree progression monitoring, research space expansion, and partnerships with external entities.

Representative Publications

ORCID -- <https://orcid.org/0000-0002-4728-996X>

Scopus Author ID: 56091035900

- SALINAS, J., GREWAL, P. S., GUTIERREZ, J. J., PEREYRA, N. A., RAMIREZ, D., SALINAS, E., SALINAS, G., SANTANA, V., and SAYGIN, C., “Family-Centered Theory of Change: A Conceptual Framework for Improving Teaching and Learning in Undergraduate STEM Courses”, Metropolitan Universities, Vol. 35, No. 1, pp.103-125, 2024. <https://journals.iupui.edu/index.php/muj/article/view/27550> DOI: 10.18060/27550
- ZARREH, A., LEE, Y., AL JANAHI, R., WAN, H., and SAYGIN, C., “Cyber-Physical Security Evaluation in Manufacturing Systems with a Bayesian Game Model”, Procedia Manufacturing, Elsevier, Vol.51, pp.1158-1165, 2020. <https://doi.org/10.1016/j.promfg.2020.10.163>
- SAYGIN, C., “KPIs Drive Strategic Planning and Execution”, Planning for Higher Education Journal, Vol.47, No.4, July-September 2019. <https://go.gale.com/ps/i.do?p=AONE&u=anon~bd05b6f&id=GALE|A603504395&v=2.1&it=r&sid=googleScholar&asid=7160de69>
- ZARREH, A., WAN, H., LEE, Y., SAYGIN, C., and AL JANAHI, R., “Risk Assessment for Cyber Security of Manufacturing Systems: A Game Theory Approach”, Procedia Manufacturing, Elsevier, Vol.38, pp.605-612, 2019. <https://doi.org/10.1016/j.promfg.2020.01.077>
- ZARREH, A., WAN, H., LEE, Y., SAYGIN, C., and AL JANAHI, R., “Cyber-Security Concerns for Total Productive Maintenance in Smart Manufacturing Systems”, Procedia Manufacturing, Elsevier, Vol.38, pp.532-539, 2019. <https://doi.org/10.1016/j.promfg.2020.01.067>

Patents

- “Unified Control System and Method for Machining of Parts”, COX, W.T., SAYGIN, C., Patent Number: US 11,281,183, Date of Patent: Mar 22, 2022 (Patent Application # 16597524, Oct 9, 2019).
- “Unified Control System and Method for Machining of Parts”, COX, W.T., SAYGIN, C., European Patent Office, Application # 20200897.5 - 1205, Oct 8, 2020.
- “Decentralized Radio Frequency Identification System”, SARANGAPANI, J., RAMACHANDRAN, A., SAYGIN, C., and CHA, K., Patent Number: US 8,143,996 B2, Date of Patent: Mar 27, 2012.
- “Adaptive Inventory Management System”, SARANGAPANI, J., RAMACHANDRAN, A., SAYGIN, C., and CHA, K., Patent Number: US 7,752,089 B2, Date of Patent: July 6, 2010.
- “Process Monitoring and Product Quality Verification for Handheld Pull Type Tools”, ANGUSWAMY, R., FONDA, J., BIRT, J. SARANGAPANI, J. and SAYGIN, C. – University of Missouri Invention Disclosure Number: 07UMR035 (2006)
- “Online Quality Monitoring of Threaded Fasteners Using Sensor-Embedded Handheld Rotary Tools”, MOHAN, D., SARANTAKOS, T., BIRT, J., FONDA, J., SAYGIN, C., and SARANGAPANI, J. – University of Missouri Invention Disclosure Number: 07UMR036 (Nov 2006)
- “RFID Read Rate and Coverage Improvement Through Reader Power Control”, SARANGAPANI, J., CHA, K., RAMACHANDRAN, A., and SAYGIN, C. – University of Missouri Invention Disclosure Number: 06UMR040 (Nov 2006).

Education & Post-Doctoral Research

Post-Doctoral Research (1997-1998), University of Toledo, Flexible Manufacturing Systems Laboratory (Director: Dr. F. Frank Chen), Toledo, Ohio.

Ph.D. (1992-97) in Mechanical Engineering with Production Engineering and Design emphasis, Mechanical Engineering Department, Middle East Technical University (<http://www.metu.edu.tr>), Ankara, Turkey.

M.S. (1989-92) in Mechanical Engineering with Production Engineering and Design emphasis, Mechanical Engineering Department, Middle East Technical University, Ankara, Turkey.

B.S. (1985-89) in Mechanical Engineering, Mechanical Engineering Department, Middle East Technical University, Ankara, Turkey.

Awards and Honors

08/2012: The University of Texas System Regents’ Outstanding Teaching Award 2012, The University of Texas – San Antonio.

04/2011: UTSA 2011 President’s Distinguished Achievement Award for Teaching Excellence, The University of Texas – San Antonio.

04/2010: 2009 College of Engineering - Excellence in Teaching Award, The University of Texas – San Antonio.

04/2005: Bernard Sarchet Honorary Award in recognition of outstanding achievements in Engineering Management, University of Missouri – Rolla.
