

Ibrahim N. Tansel

Name and academic rank:

Ibrahim N. Tansel, Professor

Degrees with fields, institution, and date:

Ph.D., Mechanical Engineering, University of Wisconsin-Madison, May 1986

M.S., Mechanical Engineering, University of Istanbul, Turkey, March 1980

B.S., Mechanical Engineering, University of Istanbul, Turkey, May 1978

Number of years of service for this faculty, date of original appointments, and dates of advancement in rank:

28 Years

Professor, Florida International University, 2007-present

Associate Professor, Florida International University, 1994 - 2007

Assistant Professor, Florida International University, 1990-1994

Other related experience:

Assistant Professor, Tufts University 1986-1990

Teaching Assistant, University of Wisconsin-Madison, 1984-1986

Consulting, patents, etc.:

Motorola, Ft. Lauderdale, Florida, several times,

I. N. Tansel, V. Y. Senyurek, A. Baghalian, S. Tashakori, "Implementation of Heterodyne Effect in SHM and Talking SHM Systems," Pending (US 15/592,438)

Principal publications (Last five years):

1. S. Tashakori, A. Baghalian, V. Y. Senyurek, Muhammet Unal, D. McDaniel, I. N. Tansel, "**Implementation of heterodyning effect for monitoring the health of adhesively bonded and fastened composite joints**," Applied Ocean Research Vol. 72, 2018, pp. 51–59, <https://doi.org/10.1016/j.apor.2018.01.008>.
2. V. Y. Senyurek, A. Baghalian, S. Tashakori, D. McDaniel, I. N. Tansel, "**Localization of multiple defects using the compact phased array (CPA) method**," Journal of Sound and Vibration, Vol. 413, 20 January 2018, pp 383-394. <https://doi.org/10.1016/j.jsv.2017.10.037>
3. A. Baghalian, V. Y. Senyurek, S. Tashakori, D. McDaniel, I. N. Tansel, "**A Novel Nonlinear Acoustic Health Monitoring Approach for Detecting Loose Bolts**," Journal of Nondestructive Evaluation, Vol. 37, No.24, 2018, <https://doi.org/10.1007/s10921-018-0478-0>
4. A. Baghalian, S. Tashakori, V. Y. Senyurek, Muhammet Unal, D. McDaniel, H. Fekrmandi, I. N. Tansel, "**Non-Contact Quantification of Longitudinal and Circumferential Defects in Pipes using the Surface Response to Excitation (SuRE) Method**," International Journal of Prognostics and Health Management, Vol.8, Issue 2, pp.1220, 2017.
5. B. Tansel, N. Dizge, Ibrahim N. Tansel, "**Analysis of high resolution flux data to characterize fouling profiles of membranes with different MWCO under different filtration modes**," Separation and Purification Technology, Vol.173, 2017, pp.200-208, <http://dx.doi.org/10.1016/j.seppur.2016.09.032>
6. H. Fekrmandi, M. Unal, SR Neva, I.N. Tansel, D. McDaniel, "**A novel approach for classification of loads on plate structures using artificial neural networks**," Measurement, Vol. 82, 2016, pp. 37-45. <http://dx.doi.org/10.1016/j.measurement.2015.12.027>
7. Shervin Tashakori, Amin Baghalian, Muhammet Unal, Hadi Fekrmandi, Volkan y Senyürek, Dwayne McDaniel, Ibrahim N. Tansel, "**Contact and non-contact approaches in load monitoring applications using surface response to excitation method**," Measurement, Vol. 89, 2016, pp. 197-203. <http://dx.doi.org/10.1016/j.measurement.2016.04.013>
8. Hadi Fekrmandi, Ibrahim Nur Tansel, Kathleen Oyola, Abdullah Alsenawi, "**A non-contact method for part-based process performance monitoring in end milling operations**", International Journal of Advanced Manufacturing Technology, Vol. 83, Issue 1–4, pp 13–20, 2016. DOI 10.1007/s00170-015-7523-2

9. M. Demetgul, V.Y. Senyurek, R Uyandik, I.N. Tansel, O. Yazicioglu, “**Evaluation of the health of riveted joints with active and passive structural health monitoring techniques**,” Measurement, Vol. 69, 2015, pp. 42-51. [doi:10.1016/j.measurement.2015.03.032](https://doi.org/10.1016/j.measurement.2015.03.032)
10. Hadi Fekrmandi, Javier Rojas, Ibrahim N. Tansel, Ahmet Yapici, Balemir Uragun, “**Investigation of the computational efficiency and validity of the surface response to excitation method**,” Measurement, Volume 62, February 2015, pp 33–40. [doi:10.1016/j.measurement.2014.10.053](https://doi.org/10.1016/j.measurement.2014.10.053)
11. Hadi Fekrmandi, Javier Rojas, Jason Campbell, Ibrahim Nur Tansel, Bulent Kaya, Sezai Taskin, “**Inspection of the Integrity of a Multi-Bolt Robotic Arm Using a Scanning Laser Vibrometer and Implementing the Surface Response to Excitation Method (SuRE)**,” International Journal of Prognostics and Health Management, Vol. 5, 2014, http://www.phmsociety.org/sites/phmsociety.org/files/phm_submission/2013/ijphm_14_001.pdf
12. M. Demetgul, K. Yildiz, S. Taskin, I.N. Tansel, O. Yazicioglu, “**Fault Diagnosis on Material Handling System using Feature Selection and Data Mining Techniques**,” Measurement, Vol. 55, 2014, pp. 15-24. <http://dx.doi.org/10.1016/j.measurement.2014.04.037>
13. Ömer Erkan, Mustafa Demetgül, Birhan Isik, Ibrahim Nur Tansel, “**Selection of optimal machining conditions for the composite materials by using Taguchi and GONNs**,” Measurement, Vol. 48, 2014, pp. 306–313. [doi:10.1016/j.measurement.2013.11.011](https://doi.org/10.1016/j.measurement.2013.11.011)
14. Ibrahim N. Tansel, Ahmet Yapici, “**Part Based Process Performance Monitoring (PbPPM)**,” Journal of Manufacturing Processes, Volume 15, Issue 3, August 2013, pp 329–337, <http://dx.doi.org/10.1016/j.jmapro.2013.02.002>
15. I.N. Tansel, B. Reding, W. L. Cooper, “**Lagrangian Point State Estimation with Optimized, Redundant Induction Coil Gages**,” Experimental Mechanics, Volume 53, Issue 6 , 2013, pp 1065-1072, DOI 10.1007/s11340-013-9714-9.

Membership in scientific and professional societies:

Fellow, ASME
Member ASME, SME

Honors and awards:

Fellow, ASME, 2008
Outstanding Young Manufacturing Engineer Award, SME, 1992
Excellence in Teaching Award, FIU, 1998
Excellence in Research Award, FIU, 1993

Institutional and professional services (Last five years):

Member of Faculty Council for Governance (FCG)

Professional development activities:

Eight fellowship positions after highly competitive review processes managed by NRC AND ASEE.
- NASA, ASEE, 2004, 2005
- Wright Patterson AFB, NRC, 2001, 2002, 2003, 2006
- NAVY, ASEE, 2000, 2001
- Elgin Air Force Base, 2008