

## Ibrahim N. Tansel

### 1. Name and academic rank:

Dr. Ibrahim N. Tansel, Professor

### 2. Education – degree, discipline, institution, year

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

M.S. Mechanical Engineering, Technical University of Istanbul, May 1980

B.S. Mechanical Engineering, Technical University of Istanbul, 1977

### 3. Academic experience – institution, rank, title

31 Years

Professor, Mech. & Mater. Eng. Dept., FIU, 1990-present (with promotions in 1994 and 2007)

Chairperson, Mech. & Mater. Eng. Dept., FIU, 2014-2017

Assistant Professor, Mech. Eng. Dept., Tufts University, 1986-1990

### 4. Non-Academic experience:

Summer Faculty Research Program, Naval Air Warfare Center, Aircraft Division (NAWCAD), July- August 2000, Naval Air Warfare Center, Training Systems Division (NAWCTSD) April-June 2001

Air Force/Summer Faculty Fellowship, Wright Patterson AFB, Dayton, OH, July-August 2001, 2002, 2003

Summer Faculty Fellowship, Kennedy Space Center, NASA, June-August 2004, June-August 2005

Summer Faculty Fellowship, Kennedy Space Center, NASA, June-August 2005

Air Force/Summer Faculty Fellowship, Wright Patterson AFB, Dayton, OH, May-August 2006, May-August 2007, July- August 2011, June-August 2012

Summer Faculty Research Program, Structures and Composite (Code 652), Carderock Division, NSWC, July- August 2010, July- August 2011

Summer Faculty Research Program, Structures and Composite (Code 652), Carderock Division, NSWC, July- August 2011

Air Force/Summer Faculty Fellowship, Eglin AFB, FL, worked at University of Colorado at Boulder, June-August 2012, June-August 2013

### 5. Certifications or professional registrations: N/A

### 6. Current membership in professional organizations

American Association of Mechanical Engineering (ASME)

### 7. Honors and awards

World's Top 2% Most Cited Scientists, 2020

Fellow of ASME, 2008

Faculty Research Award of FIU 2003, 1993, Faculty Teaching Award 1998

Outstanding Young Manufacturing Engineer Award, SME, 1992

### 8. Service activities (within and outside of the institution)

Editorial Board Member, MDPI Machines Journal

Served at FIU's following committees: Member of Faculty Senate, Chair of Faculty Council of Engineering and Computing, Member of Faculty Council of Engineering and Computing, Chair of Faculty Council of Engineering and Computing, Member of the Executive Committee of the UFF, Member of Faculty Senate Steering Committee

**9. Briefly list the most important publications and presentations from the past five years**

Modir, Alireza, and Ibrahim Tansel., "Wave Propagation and Structural Health Monitoring Application on Parts Fabricated by Additive Manufacturing" *Automation*, vol. 2, no. 3, 2021, pp: 173-186. <https://doi.org/10.3390/automation2030011>

Alireza Modir and Ibrahim Tansel, "Implementation of the surface thickness on additively manufactured parts for estimation of the loading location," *Smart Materials and Structures*, Vol. 30, Number 2, 2021, 9 pages, <https://doi.org/10.1088/1361-665X/abd4b1>

Shervin Tashakori, Saman Farhangdoust, Amin Baghalian, Dwayne McDaniel, Ibrahim N. Tansel and Armin Mehrabi, "Damage detection of 3D printed mold using the surface response to excitation method," *Structural Engineering and Mechanics*, Volume 75, Number 3, 2020, pp. 369-376, DOI: <http://dx.doi.org/10.12989/sem.2020.75.3.369>

Amin Baghalian, Shervin Tashakori, Volkan Y. Senyurek, Muhammet Unal, Dwayne McDaniel, Ibrahim N. Tansel, "Development of comprehensive heterodyne effect based inspection (CHEBI) method for inclusive monitoring of cracks," *Measurement*, Volume 128, 2018, Pages 89-95, ISSN 0263-2241, <https://doi.org/10.1016/j.measurement.2018.06.030>.

Shervin Tashakori, Amin Baghalian, Volkan Y. Senyurek, Saman Farhangdoust, Dwayne McDaniel, and Ibrahim N. Tansel, "Composites Bond Inspection Using Heterodyne Effect and SuRE Methods," *Shock and Vibration*, Volume 2018, Article ID 1361932, 6 pages, (<file:///C:/Users/tanse/Downloads/1361932.pdf>), <https://doi.org/10.1155/2018/1361932>

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>.

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>

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>

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.

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,

**10. Briefly list the most recent professional development activities**

- NSF Innovation Corps (I-Corps) Program, 2021