

# The Late Professor Ibrahim El Sadek

## 1949 – 2012

Name: Ibrahim Said El Sadek  
Title: Professor - Mathematics & Statistics  
Administrative Title: Associate Dean of College of Arts and Sciences



- Teaching Areas

Applied Mathematics

- Research Areas

Control Theory, Structural Control: Optimal Control of Distributed Parameter Systems, Simultaneous Design and/or Control of Composite Structures, Time Delay Systems, Structural Optimization, Active Control of Smart Structures , Active noise and vibration control, Undergraduate Research in Mathematics.

- Education

- M. Sc. in Mathematics, Middle East Technical University, Ankara, Turkey, 1975.
- M. Sc. in Applied Mathematics, University of California at Santa Barbara, 1981.
- Ph.D. in Applied Mathematics, University of California at Santa Barbara, 1983
- B. Sc. in Numerical Analysis and Computational Techniques, Middle East Technical University, Ankara, Turkey, 1973.

- Professional Experience

- 2000-present, Associate Dean, College of Arts and Sciences, American University of Sharjah.
- 1999-2000. Chairman, Department of Mathematics, Computer Science and Statistics, American University of Sharjah
- 1997-present. Professor, Department of Mathematics and Statistics, American University of Sharjah .
- 1993-1995 Professor, Department of Mathematical Sciences, King Fahd University of Petroleum and Minerals, Dhahran , Saudi Arabia. (On leave of Absence from University of North Carolina at Wilmington )

- 1991-1999 Tenured Professor, Department of Mathematical Sciences, University of North Carolina at Wilmington.

- Memberships

1981-1993 Member of American Mathematical Society (AMS). 1984-Present Member of Canadian Mathematical Society (CMS). 1989-1993 Member of The Mathematical Association of America (MAA).

- Academic and Professional Awards

- 1982-1983: Outstanding Teaching Assistant Award. Campuswide Award, University of California at Santa Barbara.
- 1984-1985: Golden Apple Award. Outstanding Teaching Award, Engineering Society, Queen's University at Kingston, Canada.
- 1996 - 1997: UNCW Award for excellence in Scholarship, Research and Creativity ( University of North Carolina at Wilmington).

- Selected Research, Scholarship and Creative Work

*Publications*

- Ibrahim Sadek, Taher Abualrub and Marwan Abukhaled, "Coupled Galerkin and Parameterization Methods for Optimal Control of Discretely Connected Parallel Beams," Applied Mathematical Modelling Volume 34, Issue 12, December 2010
- Ismail Kucuk, Ibrahim Sadek and Sarp Adali "Variational principles for multi-walled carbon nanotubes undergoing vibrations based on nonlocal Timoshenko beam theory," Journal of Nanomaterials, Volume 2010 (2010), Article ID 461252, 7 pages doi:10.1155/2010/461252
- Chun-Hung Lin , John C. Bruch Jr , James M. Sloss , Sarp Adali , Ibrahim S. Sadek Optimal multi-interval control of a cantilever beam by a recursive control algorithm, Optimal Control Applications & Methods, Volume: 30 Issue: 4 Pages: 399-414 Published: JUL-AUG 2009
- Ibrahim Sadek, Husein Abdel-Hamid and Julie Scott, Optimal Scanning Control of Flexible Structures in Two Dimensional Space. Journal of Computation and Applied Mathematics, Volume 233 Pages: 389-404 Published 2009.
- O Kayacik, JC Bruch Jr, JM Sloss, S Adali, IS Sadek , Piezo Control of Free Vibrations of Damped Beams with Time Delay in the Sensor Feedback, Mechanics Of Advanced Materials And Structures, Volume: 16, Issue: 5 , pages: 345 - 355 Published: JUL 2009
- Sadek I, Kucuk I, Zeini E, Adali S, Optimal Boundary Control of Dynamics Responses Of Piezo Actuating Micro-Beams , Applied Mathematical Modelling, Volume: 33 Issue: 8 Pages: 3343-3353 Published: AUG 2009

*Conference Presentations*

- Active Vibration Control of Plates Integrated with Distributed Piezoelectric Patches Using Control Approach; Proceedings of the 30th IASTED Asian Conference on Modelling, Identification, and Control -AsiaMIC- 2010, : November 24 – 26, 2010 Phuket, Thailand (Ibrahim S. Sadek, Ismail Kucuk, and Sarp Adali)
- "Maximum Principle for the Optimal Control of a Smart Plate," Proceedings of the 4th International Conference Humanoid, Nanotechnology, Information Technology Communication and Control, Environment and Management (HNICEM)The Institute of Electrical and Electronics Engineers Inc. (IEEE) – Philippine Section March 12-15, 2009 Trader's Hotel, Manila, Philippines (Ibrahim Sadek, Ismail Kucuk, Eiman Zeini , and Sarp Adali)

- “BILINEAR OPTIMAL CONTROL OF THE WAVE EQUATION USING CAS WAVELETS, “ Proceedings of the 4th International Conference Humanoid, Nanotechnology, Information Technology Communication and Control, Environment and Management (HNICEM)The Institute of Electrical and Electronics Engineers Inc. (IEEE) – Philippine Section March 12-15, 2009 Trader's Hotel, Manila, Philippines (TAHER ABUALRUB, IBRAHIM SADEK, MARWAN ABUKHALED).
- “VARIATIONAL ITERATION METHOD IN AN OPTIMAL CONTROL PROBLEM,“ Proceedings of the Third International Conference on Modeling, Simulation and Applied Optimization Sharjah, U.A.E. January 20-22, 2009 (Ismail Kucuk and Ibrahim Sadek)
- “Infinite Horizon Optimal Boundary Control of Heat Conduction Problem.” Proceedings of the Third International Conference on Modeling, Simulation and Applied Optimization Sharjah, U.A.E. January 20-22, 2009 (I.S. Sadek and M.A. Bokhari)
- “Optimal Vibration Control of Flexible Beams by Moving Actuators.” .” Proceedings of the International Conference on” Systems Theory: Modelling, Analysis and Control” May 25-28, 2009, Fes-Morocco (Ibrahim Sadek and Ismail Kucuk)

*Other*

- Guest Editor/Co-editor of special issues for :Journal of the Franklin Institute, Journal of Applied Mathematics ;Mathematics and Computers in Simulations ;Applied Mathematics and Computation







