

- **Name:** Hargsoon Yoon
  - **Current Position & Affiliation:** Professor, Norfolk State University
  - **Country:** USA
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• **Educational Background:**

- 2000 - 2003: PhD, Engineering Science, Pennsylvania State University.
- 1992 - 1994: MS, Physics, Yonsei University, South Korea.
- 1986 - 1992: BS, Physics, Yonsei University, South Korea.

• **Professional Experience:**

- 2010-Present: Professor, Dept. of Engineering, Norfolk State University.
- 2022: Visiting Professor, Harvard Medical School
- 2012-Present: Adjunct Associate Professor, Dept. of Anatomy and Pathology, Eastern Virginia Medical School.
- 2005-2009: Research Associate Professor, Dept. of Electrical Engineering, Univ. of Arkansas.

• **Professional Organizations:**

1. NIH Grant Reviewer: ETTN-10 Clinical Neurophysiology, Devices, Neuroprosthetics and Biosensors Small Business, and ETTN-19 Small Business: Commercialization Readiness Pilot, 2019-2021
2. NIH Brain Initiative Program R21 Grant Reviewer, 2015-2018
3. Guest Editor of Journal: *Biosensors, Special Issues on Neural Sensing and Interfacing Technology*.
4. Associate Editor for Special Section Nanodevices of Journal, *Frontiers in Nanotechnology*, 2019-present
5. Review Editor of Journal: *Frontiers in Materials*, 2015-present
6. Conference Co-Chair
  - SPIE International Conference: Nanosensor, Biosensors, and Info-Tech Sensors and Systems, San Diego, CA, 2022
7. Conference Session Chair
  - IEEE Engineering in Medicine & Biology Society, EMBC 2017
  - SPIE International Conference: Nanosensor, Biosensors, and Info-Tech Sensors and Systems, San Diego, CA, 2010-2021
8. Senior Member of IEEE Engineering in Medicine and Biology Society
9. Member of SPIE International Society for Optics and Photonics
10. Member of Society for Neuroscience

• **Main Scientific Publications:**

• **Book Chapter**

1. L Laurie L. Wellman, Austin M. Adkins, Hargsoon Yoon, Richard A. Britten & Larry D. Sanford, *Telemetry in Rats and Mice, Psychiatric Vulnerability, Mood, and Anxiety Disorders*, Springer, pp 201–222 (2022)
2. L. Chen, J. Xie, H. Yoon, M. Srivatsan, R. Harbaugh, V. Varadan, *Biohybrid Circuits: Nanotransducers Linking Cells and Neural Electrodes*. In R. Jung (Ed.). *Biohybrid Systems: Nerves, Interfaces and Machines.*, Wiley-VCH, Weinheim, Germany (2011)

# • Publications

1. Ashley A. Blackwell, Keiona Dunn, Hoang Tran, Vu Pham, Arriyam S. Fesshaye, Hargsoon Yoon, Thong Le, Biswajit Maharathi, Richard A. Britten, “Impact of Low Dose Single Ion (4He) Exposure on Neural Activity,” NASA HRP IWS, Houston, TX, (2023)
2. Hoang V. Tran, Min H. Kim, Thong C. Le, Hargsoon Yoon, “Electrical Impedance Tomography Imaging Localized Impedance Changes Induced by Ion Beam Interactions Simulating Fast Neural Activity, NASA HRP IWS, Houston, TX, (2023)
3. Hoang Van Tran, Min Hyuck Kim, Thong Le, Hargsoon Yoon, High accurate and efficient electrical impedance tomography for fast brain imaging,” Proc. SPIE. 12485, Nano-, Bio-, Info-Tech Sensors, and Wearable Systems, Los Angeles, CA, (2023)
4. Arastu Sharma, Sehyun Lee, Hoonseo Kim, Hargsoon Yoon, Shinwon Ha and Sung Ung Kang, “Molecular Crosstalk Between Circadian Rhythmicity and the Development of Neurodegenerative Disorders” Front. Neurosci. 14. 844 (2020)
5. Min H. Kim, Hargsoon Yoon\*, Sang H. Choi, Zhio Fei, Jongsung Kim, Kyo D. Song and Uhn Lee, “Miniaturized and Wireless Optical Neurotransmitter Sensor for Real-Time Monitoring of Dopamine in the Brain,” Sensors, 6(11), E1894 (2016).
6. Michael Polanco, Sebastian Bawab, Hargsoon Yoon\*, “Computational assessment of neural probe and brain tissue interface under transient motion,” Biosensors, 6, 27 (2016).
7. Michael Polanco, Hargsoon Yoon\*, Sebastian Bawab, “Micromotion-induced dynamic effects from a neural probe and brain tissue interface” J. Micro/Nanolith. MEMS MOEMS., 13(2), 023009 (2014).
8. R. Zhu, G.L. Huang, H. Yoon\*, C.S. Smith, V.K. Varadan, “Biomechanical strain analysis at the interface of brain and nanowire electrodes on a neural probe”, J. Nanotech. Eng. Med., 2, 031001 (2011).
9. H. Yoon\*, P. Hankins, S. Oh, R. E. Haubaug, V. K. Varadan, “Heterostructured IrO<sub>2</sub>/Au nanowire electrodes and unit recordings from hippocampal rat brain” J. Nanotech. Engineering Medicine, 1(2), 021006 (2010).