KHAN M. IFTEKHARUDDIN, PhD, Fellow SPIE

POSITIONS HELD:

Old Dominion University, Batten College of Engineering and Technology, Norfolk, VA
Professor and Director, Vision Lab, 2011 – Current.
Professor and Interim Dean, 2021- 2022.
Professor and Associate Dean for Research and Graduate Programs, 2017- 2021. 2022 – 2023
Batten Endowed Chair in Machine Learning, 2019 – Current.

Old Dominion University, Department of Electrical and Computer Engineering, Norfolk, VA
Professor and Chair, 2013-2017.

The University of Memphis, Department of Electrical and Computer Engineering, Memphis, TN
Professor, 2011.
Associate Professor, 2003-2011.
Assistant Professor, 2000-2003.

The University of Memphis and the University of Tennessee Health Sciences, Joint Department of Biomedical Engineering, Memphis, TN
Affiliated Faculty, 2001 - 2011

North Dakota State University, Department of Electrical & Computer Engineering, and Department of Computer Science Fargo, ND.
Assistant Professor, 1998-2000.

Timken Research, NDE and Sensor Technology Department, The Timken Company, Canton, OH
Principal Research Engineer, 1997-1998.

BDM Federal, System Architecture Group, Depot Maintenance System, Dayton, OH
Staff Member, 1994 – 1997.

HONORS, AWARDS, & RECOGNITIONS:

- Winner of the **State Council of Higher Education for Virginia's (SCHEV) outstanding faculty award** for the highest standards of teaching, scholarship and service in the State of VA, 2023.
- Cited among the **top 2% researchers in their fields for career and single-year impact in the globe**, Research by Stanford University, published online, 2021, 2022.
- Elected Fellow, Society of Photo-Instrumentation Engineers (SPIE) (Elected, 2004).
- Awarded Batten Endowed Chair in Machine Learning, Old Dominion University (Fall 2019 - present).
- Awarded Old Dominion University's **2020 Faculty Research, Scholarship and Creative Achievement Award (**https://www.odu.edu/news/2020/9/khan_iftekharuddin_#.X1woStZ7nyw).
- Inventor/co-inventor for four patents issued by US Patent and Trademark Office and two IP disclosures.
- Senior Member: IEEE (2002), OSA (2013), and INNS (2019).
- Ranked 1st among 17 teams in NIH/MICCAI Global Brain Tumor Survival Prediction Challenge, 2017.
- Ranked 2nd among 79 teams in NIH/MICCAI Global CPM: Rad-Path Challenge, Shanghai, 2019.
- Received *Most Inspiring Faculty Award for Research* in BCET, 2013, 20127, 2018.
- Awarded *Researcher of the Year Award*, Old Dominion University, 2014.
- Awarded *Outstanding Faculty Research Award*, The University of Memphis, 2011
- Awarded *Researcher of the year award*, North Dakota State University, 2000.

EXTERNAL FUNDING (selected recent grants):

- *GRANTS (IN DOLLARS): Received over* **$23M of research funding** *from different federal, state, non-profit, industry and private sources such as NSF, NIH, NASA, DOT, Air force Research Lab, Army Research Office, Navy, Lawrence Livermore National Lab, Whitaker Foundation, Assisi Foundation, Timken Research, CCAM and FedEx-FIT (of which I am the PI for more than 90% of these grants).*
 (Selected Recent Grants)
- Wright Regional Center for Clinical and Translational Science, NIH CTSA, (VCU Lead), ODU Share: $2,600, 230, May 2023 – April 2030, (PI).

- Virginia Maritime Industrial Base Consortium (VMIBC), <u>Institute for Advanced Learning and Research</u>, Total value: $1,409,978.00 (plus $90,000 cost share), September 2021 – September 2023 (PI).
- Graduate Traineeships in Accelerator Engineering and Physics, $3,000,000, <u>DOE</u>, September 2021 – August 2026 (Co-PI).
- SCC-IRG Track 2: Scalable Modeling and Adaptive Real-time Trust-based communication (SMARTc) system for roadway inundations in flood-prone communities, Smart and Connected Communities (S&CC) Program, CMMI/NSF, (Grant# 1951745), Total Value: $1,483,427,000, September 2020 – August 2023 (PI).
- Howard University, Center of Excellence in Artificial Intelligence and Machine Learning (Old Dominion University – Collaborator site, DoD (OUSD(R&E)), ODU Share: $1,75,000, 000, October 2020 – September 2025, (Co-PI at ODU site).
- REU Site: Deep Learning Driven Cybersecurity Research in a Multidisciplinary Environment, CISE/NSF, (Grant # 1950704), Total Value: $405,000, March 2020 - February 2023 (PI/Co-PI).
- Quantitative Image Modeling for Brain Tumor Analysis and Tracking, NIBIB/NIH, (Grant# R01 EB020683-01A1), Total Value: $1,600,000, May 2016- February 2023 (PI).

PUBLICATIONS: (Google Scholar: h-index 37; 12000+ Citations, accessed in August 2023)
Selected Journal Papers (Candidate has over 85 refereed journal and 165 conference publications)
1. M. A. Witherow, M. D. Samad, N. Diawara, H. Y. Bar, and K. M. Iftekharuddin, "Deep Adaptation of Adult-Child Facial Expressions by Fusing Landmark Features," To Appear, <u>IEEE Transaction on Affective Computing</u>. 2023.
2. L. Vidyaratne, M. Alam, A. Glandon, A. Shabalina, C. Tenant and K. M. Iftekharuddin," "Deep Cellular Recurrent Network for Efficient Analysis of Time-Series Data with Spatial Information", <u>IEEE Transaction on Neural Networks and Learning Systems</u>, 33(11), 6215-6225, 10.1109/TNNLS.2021.3072885, 2022.
3. M. Alam, M. Samad, L. Vidyanathane, A. Glandon, and K. M. Iftekharuddin, "Survey on Deep Neural Networks in Speech and Vision Systems", <u>Neurocomputing</u>, Vol. 417, pp. 302-321, 2020.
4. M. Alam, L. Vidyaratne and K. M. Iftekharuddin, "Sparse Simultaneous Recurrent Deep Learning for Robust Facial Expression Recognition," <u>IEEE Transaction on Neural Networks and Learning Systems,</u> vol. PP, no. 99, pp. 1-12, 2018.
5. M. Alam, L. Vidyaratne and K. M. Iftekharuddin, "Novel Deep Generative Simultaneous Recurrent Model for Efficient Representation Learning Systems Neural Networks", Special Issue on "Deep Reinforcement Learning", Neural Networks, pp. 12-22, 2018.

INNS RELEVANT ACTIVITIES AND SERVICES:
- Served as a Technical Co-Chair for IJCNN 2019.
- Let the biologically-inspired vision Special Interest Group of INNS (2005 – 2013).
- Regularly organized special sessions, symposia and workshops in IJCNN, WCCI, SSCI, SPIE, OSA conferences.
- Served as the Special Session Co-Chair for 2023 IJCNN conference in Gold coast, Australia.
- Has been serving as an Associate Editor for IEEE TNNLS since 2018.
- Member since 2004 and elected Senior Member of INNS since 2019.
- Served as department Chair of Electrical and Computer Engineering for four years (2013-2017), as an Associate Dean for Research and Graduate Programs for five years and as an Interim Dean for one year at his current institution, Old Dominion University.

PROFESSIONAL EXPERIENCES: Journal Editorship
- Senior Editor, Optical Engineering (2017 - 2023)
- Associate Editor, Journal of Medical Imaging (2022- Current)
- Associate Editor, Applied Optics (2022- Current)
- Associate Editor, IEEE Transaction on Neural Networks and Learning Systems (2018 – Current)
- Associate Editor, IEEE Transaction on IoT (2020 – Current)
- Associate Editor, IEEE Transaction on Systems, Man and Cybernetics: (2020 – Current)
- Associate Editor, Artificial Intelligence Review (2020 – Current)