Stanford

Muhammad Nasir Ullah

Postdoctoral Scholar, Molecular Imaging Program at Stanford

📄 Curriculum Vitae available Online

Bio

BIO

Muhammad Nasir Ullah has received a BS degree in Electronic Engineering from International Islamic University, Islamabad (IIUI) Pakistan in Jun 2012 and an integrated MS + Ph.D. degree in Bio-Convergence Engineering from Korea University, Seoul, South Korea under the supervision of Professor Jung-Yeol Yeom in Feb 2020. His Ph.D. thesis was focused on detector design for Nuclear Medicine (NM) system and NM-Ultrasound hybrid systems.

His area of research interest is radiation detection and measurement for medical applications. He has been working on detector design for Positron Emission Tomography (PET) system, intraoperative gamma probe detector, beta/gamma discrimination, and hybrid Ultrasound-gamma probe. He has also been working on frontend discrete circuit designs for various types of radiation and Ultrasound (US) detectors. He has published 6 peer-reviewed articles as the first author while 2 as co-author. He also has 4-patents under his name in S. Korea.

HONORS AND AWARDS

- Ph.D. Scholarship, Korea University, Seoul, South Korea (2015-2020)
- Final Year Project Award, International Islamic University, Islamabad, Pakistan (2012)
- Best Paper Award, Korea University, Seoul, South Korea (2019)
- Trainee Grant, IEEE NSS/MIC (2016)
- Trainee Grant, IEEE NSS/MIC (2020)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Korea University (2020)
- Bachelor of Science, Unlisted School (2012)
- Integrated MS + PhD, Korea University, Seoul, South Korea , Bio-Convergence Engineering (2020)
- BSEE, International Islamic University, Islamabad, Pakistan , Electronic Engineering (2012)

STANFORD ADVISORS

- Craig Levin, Postdoctoral Faculty Sponsor

Research & Scholarship

LAB AFFILIATIONS

- Craig Levin, Molecular Imaging instrumentation Laboratory (MIIL) (2/3/2021)

Publications

PUBLICATIONS

- **Application of Artificial Intelligence in PET Instrumentation.** *PET clinics*
  Ullah, M. N., Levin, C. S.
  2022; 17 (1): 175-182

- **Wavelength discrimination (WLD) detector optimization for time-of-flight positron emission tomography with depth of interaction information** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Ullah, M., Park, J., Pratiwi, E., Kim, G., Yeom, J.
  2020; 982

- **Wavelength discrimination (WLD) TOF-PET detector with DOI information** *PHYSICS IN MEDICINE AND BIOLOGY*
  Ullah, M., Pratiwi, E., Park, J., Lee, K., Choi, H., Yeom, J.
  2020; 65 (5): 055003

- **Collimators for Gamma Dual Energy CT Arch-Detector: A Simulation Study** *JOURNAL OF THE KOREAN PHYSICAL SOCIETY*
  Pratiwi, E., Bae, S., Lee, H., Ullah, M., Lee, B., Lee, K., Yeom, J.
  2020; 76 (1): 79–85

- **A new positron-gamma discriminating phoswich detector based on wavelength discrimination (WLD)** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Ullah, M., Park, C., Pratiwi, E., Kim, C., Choi, H., Yeom, J.
  2019; 946

- **Investigation of Optical Properties of Ceramic Ce:GAGG by High Temperature Annealing** *JOURNAL OF THE KOREAN PHYSICAL SOCIETY*
  Park, C., Ullah, M., Kim, C., Cho, S., Yeom, J.
  2019; 75 (12): 962–67

- **Studies on sub-millimeter LYSO:Ce, Ce:GAGG, and a new Ce:GFAG block detector for PET using digital silicon photomultiplier** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*
  Ullah, M., Pratiwi, E., Park, J., Yamamoto, S., Kamada, K., Yoshikawa, A., Yeom, J.
  2018; 911: 115–22

- **Instrumentation for Time-of-Flight Positron Emission Tomography** *NUCLEAR MEDICINE AND MOLECULAR IMAGING*
  Ullah, M., Pratiwi, E., Cheon, J., Choi, H., Yeom, J.
  2016; 50 (2): 112–22