



Research Assistant – Detector Model Development & ANN Signal Processing (short term) - DTU Space

Kgs. Lyngby, Denmark

 **BE THE FIRST TO APPLY**

JOB DESCRIPTION

DTU Space invites applications for a 4-month Research Assistant position to support the i-RASE (Intelligent Radiation Sensor Readout Systems) project. The role focuses on developing detector models and training artificial neural networks (ANN) using synthetic data for advanced radiation sensor readout.

Responsibilities and qualifications

Key Responsibilities:

- Further development of a detector model for radiation sensor readout.
- Training and optimizing ANN-based signal processing algorithms.
- Working with synthetic data to enhance electron tracking performance.
- Collaborating with the i-RASE team to integrate models with broader project workflows.

Qualifications:

- Strong expertise in machine learning for signal processing.
- Experience with detector modeling and synthetic data generation.
- Proficiency in Python and relevant deep learning frameworks (e.g., TensorFlow, PyTorch).
- Ability to work independently and adapt to ongoing project dependencies.

As a formal qualification, you must have a master's degree in engineering or equivalent.

We offer

DTU is a leading technical university globally recognized for the excellence of its research, education, innovation and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility.

Salary and terms of employment

The appointment will be based on the collective agreement with the Confederation of Professional Associations. The allowance will be agreed upon with the relevant union.

The period of employment is 4 months. Start Date: 1 May 2025

You can read more about career paths at DTU here.

Further information

Further information may be obtained from Professor Irfan Kuvvetli on irfan@space.dtu.dk

You can read more about the department at Astrophysics and Atmospheric Physics

If you are applying from abroad, you may find useful information on working in Denmark and at DTU at DTU – Moving to Denmark.

Application procedure

Your complete online application must be submitted no later than **24 March 2025 (23:59 Danish time)**.

Applications must be submitted **as one PDF file** containing all materials to be given consideration. To apply, please open the link "Apply now", fill out the online application form, and attach **all your materials in English in one PDF file**. The file must include:

- Application (cover letter)
- CV
- Academic Diplomas (MSc)

Applications received after the deadline will not be considered.

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply. As DTU works with research in critical technology, which is subject to special rules for security and export control, open-source background checks may be conducted on qualified candidates for the position.

The DTU Space Institute has about 200 employees and is located in the greater Copenhagen area at the Lyngby Campus of the Technical University of Denmark together with 19 other institutes within the technical sciences. We link natural science closely with the development of new technology. DTU Space is involved in the full life cycle of space activities, including concept and design, construction and proto-typing, calibration and validation, implementation and operations, data analysis, processing, dissemination, and applications, leading to new instruments and applications. With the specialized and refined technology available, we are getting more and more answers and further insight about the Earth and the universe surrounding us. We contribute to about 200 scientific publications a year.

In the Astrophysics & Atmospheric Physics Division of the Space Research and Space Technology Institute (DTU Space), current focus areas cover large-scale structure of the universe, physics of compact objects, exoplanets, upper atmosphere physics and cosmo-climatology as well as development of instrumentation, in particular high-energy instrumentation, i.e. X- and gamma ray detectors and -optics. The division is currently active in the operation of instruments and data analysis from three satellites. The division also runs four instrumentation laboratories and hosts a center for space weather research and forecasts.

Technology for people

DTU develops technology for people. With our international elite research and study programmes, we are helping to create a better world and to solve the global challenges formulated in the UN's 17 Sustainable Development Goals. Hans Christian Ørsted founded DTU in 1829 with a clear mission to develop and create value using science and engineering to benefit society. That mission lives on today. DTU has 13,500 students and 6,000 employees. We work in an international atmosphere and have an inclusive, evolving, and informal working environment. DTU has campuses in all parts of Denmark and in Greenland, and we collaborate with the best universities around the world.

APPLY NOW

JOB INFO

Job Identification

4769

Job Category	VIP B
Posting Date	03/10/2025, 01:33 PM
Apply Before	03/25/2025, 04:29 AM
Locations	📍 Elektrovej, Kgs. Lyngby, 2800, DK

