

Fraunhofer Institute for Electronic Nano Systems (Fraunhofer ENAS) is a partner for applied research and development in the field of smart systems and their integration for various applications. Its Systems and Applications Business Unit is also quite active in the medical/MedTech sector not only developing smart medical sensors and devices but also pushing forward X-ray technology and high voltage generation. With regard to OPEN CALL topic 2 of the call we would be happy to bring in our expertise in the latter topics:

Recent projects covered the following topics/tasks:

1. spectral X-Ray imaging for diagnosis: improving image quality and reducing dose compared to conventional (CT) methods
 1. Setup/operation of a x-ray generation chain (Generator, x-ray tube, collimator and flat panel detector)
 2. Definition/optimization of acquisition procedure as well as dose/image quality balancing over whole components
 3. substance classification by combining physics and ML

related topics of interest are:

2. use of novel materials for radiation shielding (as substitute for lead)
3. cold emitter, nanotube technology
4. multi emitter technology (arrays of x-ray sources)
5. ultra-light portable x-ray system

We might also contribute with our cross-functional AI team, eg with:

2. AI assisted image reconstruction
3. Hardware acceleration/simulation acceleration via AI/ML
4. AI-assisted decision making

...or with our expertise in microsystems & microelectronics in general.

For more information please contact:

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