



The Max Planck Institute for Microstructure Physics, Halle, Germany, Department of Nanophotonics, Integration, and Neural Technology led by Director Prof. Joyce Poon, is recruiting an

Electronics Engineer

for the development of printed circuit boards, FPGAs, embedded systems, and interface software for the custom microchips being created in the department. These microchips span a range of applications, including machine learning accelerators, LiDAR, microdisplay engines, and brain implants. The research mission of the department is to invent devices and microsystems for future computing.

Your Tasks

- Collaborate with the team to develop and demonstrate integrated systems involving microchips with photonic, electronic, and microfluidic circuits
- Develop software interfaces between the microchips and embedded systems
- Design printed circuit boards (PCBs) and electronic circuits for photonic microchips
- Program and test embedded systems involving microcontrollers, FPGAs, and/or microprocessors to control and read out from microchips
- Construct laboratory equipment setups for integrated circuit test and measurement
- Package fabricated microchips with carriers, rigid & flexible printed circuit boards, connectors, flexible cables, etc. using a combination of wirebonding, flip-chip bonding, adhesive bonding techniques

Your Profile

- Minimum B.S. Degree in Electrical or Computer Engineering or equivalent
- You have a combination of hardware and software skills
- You have expertise in microelectronic circuit design and simulations (e.g., LTspice), FPGAs (e.g., VHDL programming, Xilinx Vivado), PCB layout (e.g., KiCAD or equivalent), microcontrollers
- You have experience with programming interfaces to embedded systems in C
- You have experience with setting up hardware for test and debugging from DC up to low frequency RF (~5 GHz)
- Experience in the mechanical design and design+test of instrumentation is an asset
- You are a fast learner and excited to learn about other disciplines
- You are an effective team player that excels in a fast-paced, highly dynamic, interdisciplinary and international environment
- You have excellent written and oral communication skills in English

We Offer

- The opportunity to work at the forefront of scientific research with an incredible team of highly motivated and smart people
- The opportunity to interact with a wide network of international collaborators
- Remuneration and social benefits according to TVöD (German Civil Servant pay scale)
- Fixed-term contract initially for 2 years, with the potential of extension
- Start date: As soon as possible

Your Application

- Please upload your **CV with the names of two references as a single pdf file** to <https://s.gwdg.de/LQFDbt>. Please name your file with your name as **lastname_firstname.pdf**.
 - Your file has been successfully uploaded if you see your filename under "Uploaded files" after your submission.
- If you encounter problems with the file upload, please email office.poon@mpi-halle.mpg.de
- For more information about our department, please visit <https://www.mpi-halle.mpg.de/NINT>

The Max Planck Society aims to employ more persons with disabilities. Applications from persons with disabilities are encouraged. The Max Planck Society seeks to increase the number of women in areas where they are underrepresented and therefore encourages women to apply.