

Senior R&D Scientist/Engineer in Hardware System Prototyping

Location: Copenhagen, Denmark.

Full-time on-site position (no remote work)

Travel: Expected <20% of work time

Reports to: Head of Technology R&D, CTO

Starting date: ASAP

Would you like to help us revolutionize the development and manufacturing of electronic, photonics, and optics industries? Welcome to ATLANT 3D – we invite you for an amazing journey where you will be a part of a team working towards disrupting 60 years of micro and nanofabrication technologies and systems. We offer you a once-in-a-lifetime experience. What we develop is unique, and we are incredibly excited to make a difference.

We are looking for a senior R&D Scientist/Engineer in **Hardware System Prototyping** for our R&D team to lead the development of novel rapid material and microdevice fabrication systems based on our proprietary direct atomic layer processing/patterning (DALP) technology for processing a multiplicity of materials delivered in liquid, gas, and a combination of both for its processing in our unique Nanofabricator systems.

You will join a highly skilled and dedicated team of engineers and scientists and become a key participant in developing innovative solutions within nanotechnology. Cross-functional collaboration is the key to our success. We believe in combining theory and simulation with hands-on prototyping and testing.

What is the job about

You will lead and be responsible for innovation, design, prototyping and demonstrating new innovative electromechanical proof of concept systems and setups utilising various technologies, including microsystems, gas delivery, mechatronics, plasma, inkjet printing systems, vacuum systems, laser technology, analytical and sensing systems to validate new innovative solutions and integrate them into our equipment products or develop new ones.

This involves independent research, working with external experts and vendors, devising and executing experimental plans for demonstrations, working with patent attorneys on securing intellectual property protection, and working with the Engineering team on the technology transfer and integration into the product.

Ultimately you will be driving the innovation edge and performance improvements of ATLANT 3D's products that rely on cutting-edge solutions.





What will be your responsibilities?

As R&D Scientist/Engineer in ATLANT 3D, we expect you to be a driver of innovation, drawing on input from the CTO, the Head of Technology R&D, augmented by the market road map defined by the teams under the CPO to expand the technology leadership of ATLANT 3D. As such, this also includes the drive toward enhancing the company's IP portfolio as defined by the company's IP executive committee.

Your overall responsibilities:

- Lead the development of novel rapid material and microdevice fabrication systems based on our proprietary direct atomic layer processing/patterning (DALP) technology to enable rapid atomically precise material processing with micron range resolution.
- Drive innovation, design, prototyping, and demonstrating new electromechanical proof of concept systems and setups utilising various technologies.
- Develop and implement plans for R&D of new technologies and product ideas, including budgets, timelines, objectives, goals, resource management, and risk analysis.
- Validate new innovative solutions and integrate them into our equipment products or develop new ones.
- Analyze complex data to find trends, provide solutions, and troubleshoot and optimize the designs.
- Design and improve CAD and electrical engineering systems.
- Ensure that the developing plans are executed according to the agreed objectives, budgets, and timelines. Risk analysis and possible alternatives must be included in each program with clear criteria for success, sense of urgency must be shown in the project execution.
- Work with the R&D, Engineering, Applications, and Product Management teams to integrate the developed technology into product and applications development plans.
- Collaborate with Engineering and Application teams to integrate R&D state-of-the-art solutions immediately into equipment product and applications development with clear goals and objectives and successfully transfer R&D project results with adequate documentation
- Participate in evaluating, selecting, and managing suppliers and derisking single-source supply chain issues.
- Participate in evaluating and selecting critical component suppliers with the Engineering team.
- Submit innovative ideas for patent or trade secret applications.
- Provide guidance and mentorship to other colleagues and junior specialists.
- Develop analytical and manufacturing methodologies for quality control.
- Work with vendors to procure and install required tools and equipment.
- Lead external R&D engagements with academic and industrial partners.
- Develop DOEs analyse the data, report the key results, summarise and present during meetings.





Talent & professional capabilities

In the role, you will participate in developing the R&D roadmap for developing new electro-mechanical subsystems. We expect you to perform independent research to be the world expert in this area. You will furthermore should:

- Have a passion for technical leadership and innovation and is a world expert in precision electro-mechanical systems technology.
- An MSc or PhD in Mechanical Engineering, Electrical Engineering, Physics, or other relevant fields with deep experience in precision electro-mechanical systems.
- 8+ years of experience in R&D of micro- and nano-fabrication technologies and systems.
- Strong experience in designing, prototyping, and testing electromechanical systems.
- Experience developing gas delivery systems, mechatronics, plasma, analytical and sensing systems and vacuum systems, and as advantage laser systems and inkjet printing systems.
- Experience and knowledge of ALD technology are advantages.
- Strong experience in the DOE, analysis and interpretation of complex data.
- Strong experience in CAD, such as Solid Works and electrical design.
- Have hands-on skills in electro-mechanical setups, measurement systems and the scientific method and design of experiments.
- Ability to document work and create clear documentation of results and processes that can be handed to other team members.
- Undesting of safety requirements in the lab.
- High general knowledge of relevant technologies and ability to communicate clearly with technology experts in their fields of expertise.
- Ability to work with various international partners, suppliers, customers, and associated travels
- Proficiency with computer systems and data analysis.
- Strong leadership and project management experience.
- Full proficiency in English, both verbal and written.
- Full proficiency in verbal and written English and MS Office 365 tools is necessary.

People skills & competencies

- You are easily self-motivated and proactive in collecting inputs and addressing issues timely.
- You are results-driven, eager to create a sense of urgency for R&D projects and make optimal use of available resources to produce R&D results.
- You can work independently as well as a part of the team, manage multiple projects simultaneously and drive innovation.
- A well-developed judgment and strong decision-making skills allow you to work with other team members independently to produce results.
- A result-driven mindset and the ability to make optimal use of available resources to produce R&D results.
- An open-minded mindset and creative as well as critical thinker.





- Excellent communication skills, and you feel comfortable engaging with stakeholders across all functions and cultures both internally and externally.
- You are self-driven and have chosen never to become complacent in life but aim to develop yourself and the people around you every day. You are also a natural challenger, not afraid to raise your opinion and challenge the status quo.
- You know success combines hard work, solid priorities and high quality.
- You know that working as a team and supporting a solid feedback culture will get us all where we want to go faster!

We offer you the following:

- The opportunity to become part of a company poised to revolutionise the development and manufacturing of the electronic, photonics, and optics industry.
- An opportunity to have influence and make a significant contribution to a young and fast-growing company.
- International team collaboration and a great place to work where we like to be together.
- Opportunities and support to advance your personal and career.
- Working with state-of-the-art, most advanced technologies and highly innovative customer projects.
- Interactions with international partners, suppliers, customers, and associated travel.

ATLANT 3D Nanosystems is a unique workplace driven by exceptional, innovative people. Each team member is unique in our company and contributes to building an international, intelligent, diverse and positive work culture nurtured by a sharp vision and authentic engagement. By joining us, you will have the opportunity to enhance your skills and develop and drive impact. As an agile organisation, we aim to empower our employees with flexibility, transparent management, and inspiring learning. And then we love and support you when you develop into a new role on your career path.

We love passionate and motivated people (like you!) to help us bring innovative solutions, drive impact and be a part of a unique, exciting growth journey.

Ready to start an exciting journey at ATLANT 3D Nanosystems? Be curious and read about us here. If you want to know more about the position, please get in touch with the Head of People & Culture, Susie Sandberg, by email or mobile at +45 4290 9097.

