【岩手】Innovation ＆ Pre-Development Engineer

★遠方/ビザサポートあり★ 世界トップレベルのシェアを誇る ZAMAグループ

Job Information

Hiring Company
ZAMA Japan Kabushiki Kaisha

Job ID
1613000

Industry
Machinery

Company Type
Small/Medium Company (300 employees or less) - International Company

Non-Japanese Ratio
(Almost) All Japanese

Job Type
Permanent Full-time

Location
Iwate Prefecture

Salary
6 million yen ~ 8 million yen

Refreshed
October 28th, 2026 00:00

General Requirements

Career Level
Entry Level

Minimum English Level
Business Level

Minimum Japanese Level
Business Level

Minimum Education Level
Post Grad Degree (PHD/MBA etc)

Visa Status
Permission to work in Japan required

Job Description

≪Job Description & Position Highlights≫

- Take on a broad range of responsibilities, from early-stage new product concepts and technology research to prototyping and simulation
- Experience the challenge of exploring emerging technologies and materials and turning innovative product concepts into reality
- Leverage advanced technical skills in C/C++, Python, and CFD analysis to contribute to product development and technical decision-making
- Collaborate with customers, overseas offices, and international teams to drive projects in a global engineering environment

【Job Responsibilities】
As an Innovation ＆ Pre-Development Engineer, you will identify, evaluate, and validate new product ideas before they move

into later development phases. You will work with customers and application engineering teams to understand requirements, develop product concepts, research emerging technologies and materials, create physical or digital prototypes, and use simulation to support technical decision-making.

< Key Responsibilities >

1. General:

- Execute tasks in alignment with established engineering processes.
- Implement departmental and management decisions and objectives.
- Report on project progress and maintain schedules.
- Support concept design initiatives, including:
  -Defining specifications and procedures for new products.
  -Conducting concept studies and risk assessments for new or modified components.
  -Preparing drawings, schematics, product specifications, parts lists, and supporting documentation.
  -Leading product design studies.

2. Idea and Technology Identification:

- Research emerging technologies, alternative materials, and new applications to support future product concepts and align relevant opportunities with company strategy.
- Facilitate design negotiations with customers and cross-functional teams, including group companies.
- Evaluate and verify concept designs through feasibility studies, risk assessments, and supporting technical documentation.
- Manage and coordinate the submission of new patents.
- Identify new applications for existing technologies, both within and beyond the outdoor power equipment industry.
- Ensure legal and regulatory compliance for new technologies and concepts.
- Stay informed on the latest scientific and engineering advancements, aligning relevant technologies with company strategy.
- Research and evaluate alternative materials.

3. Simulation & Prototyping:

- Develop innovative data processing algorithms to enhance product performance, especially in fuel management systems.
- Conduct proof-of-concept studies to assess technical feasibility, incorporating rapid prototyping, testing, and reporting.
- Define technical requirements, including hardware and software specifications.
- Build analytical and numerical models using tools such as 3D and 1D CFD, electromagnetic, and structural analysis.
- Run simulations to support product development and data analysis, and translate simulation results into actionable engineering insights.
- Support engineering decision-making by delivering detailed analysis based on simulation outcomes.
- Research and test alternative materials for advanced applications.
- Simulate and analyse mechanical and fluid dynamic effects.

< Reports To >
Senior Innovation Manager

Organization Structure
Japan entity: approximately 38 employees
A young and dynamic team with a friendly and collaborative work environment.

【Employment Type】
Full-time Employee

【Work Hours】
As per company regulations

【Work Location】
ZAMA Japan K.K. Hachimantai, Iwate, Japan

【Holidays and Leave】
As per company regulations

【Benefits】

- Training opportunities (technical skills, career development)
- Full benefits (social security, pension, medical insurance)
- Visa support

Required Skills

【Must Have】
< Key Competencies & Skills >

- Strong programming skills in C/C++, Python for data analysis, and other relevant programming languages.
- Communicate complex technical findings clearly and collaborate effectively with departments, customers, external partners, group companies, and international teams.

- Deep knowledge of internal combustion engines and fuel supply systems.
- Expertise in various simulation methodologies.

< Qualifications and Experience >

- Master’s degree in mechanical engineering, electrical engineering, or a related field.
- Minimum 5 years’ experience in mechanical, electronic, or electromechanical engineering.
- Ability to work independently and communicate complex technical findings clearly.
- Experience collaborating with international teams and operating effectively in a global engineering environment.
- Demonstrated project management experience.
- Comfortable working hands-on with hardware, test benches, and prototype equipment.
- Willingness to travel internationally for business meetings and project collaboration.
- Advanced understanding of fluid dynamics, structural mechanics, and electric/magnetic circuits.
- Experience with simulation software (e.g., Linux OS, Ansys Fluent, Ansys Mechanical, OpenFOAM, ANSA, Matlab, Simulink).
- Apply strong analytical, algorithmic, and structured problem-solving skills to complex mechanical and electromechanical engineering challenges.
- Strong understanding of mechanical, electromechanical, fluid dynamic, structural, and electromagnetic principles relevant to product development.
- Japanese Must Business fluency
- English Must Business fluency

【Nice To Have】

< Key Competencies & Skills >

- Strong algorithmic and analytical thinking.
- Experience with analytical and simulation software.
- Skilled in mechanical drawing and documentation.
- Proficiency with 3D-CAD software.
- Strong self-management and organizational skills.

< Qualifications and Experience >

- Solid background in physical sciences, materials science, and engineering.
- Creative and open-minded approach to developing innovative product concepts.
- Experience facilitating ideation workshops and applying creative thinking techniques.
- Strong ideation skills, with the ability to translate concepts into clear product or service propositions.
- Awareness of product cost factors and the impact of design decisions on manufacturing.
- Knowledge of manufacturing technologies and processes.
- Mandarin Advantageous

Company Description