Job Notification Form, IIT Delhi

Company Overview

Name: Honda R&D

Website: honda.co.jp

Company Type: Other (1)

Description: Honda R&D Co. Ltd

Job Details

Designation: 3) AI based recognition and control system Engineer

Type: Core (Technical)

Place of Posting: Wako-shi, Saitama, Japan

Job Details: 〈Honda R&D Solution System Development Center〉
Honda R&D Solution System Development Center is committed to pursuing innovative development and creation of “value” in life and mobility. The mission of our department is to make a new epoch by research and development of “Robot” and “New Device using robotics technology” that will be useful to everyday life.Toward our mission, you will work on object/environmental recognition, behaviour planning and control system research and development by applying your skill and knowledge on AI and control technologies. You must have strong will to achieve goals with hypothetical thinking and comprehensive skills to work as a team member. You should proactively take actions, interacting with stakeholders and identifying issues and possible solutions in order to maximize the individual as well as organizational output. You are also expected to expand your work to other technical domains for broader achievements.

<Responsibilities>

・Develop a solution system including requirement analysis, design, testing, data collection, programming, analysis of the results and reporting.

・Demonstrate the developed system functions according to the user requirement in the real environment.

・ Work closely with system engineering and software engineering teams to develop systems from concept to mass production level.

・Well collaborate with oversea departments, external researchers, universities and companies.

<Specific Goals>
The candidate will research AI and control technologies working on real robots by using his/her experienced knowledge and skills. Honda expects the candidate to create novel AI based recognition algorithms with using machine learning techniques for robot navigation and manipulation. The recognition algorithm includes human detection/tracking, object detection, semantic segmentation, 3D pose estimation, self-localization, mapping and so on. The images of research

schedule and deliverables are as follows.

Phase1:
Understanding robot system: The candidate will join an advanced research team and learn the challenges of developing robots for real-world deployment and learn the importance of systems engineering leading to mass production.
《Period: 1st year》
Deliverables: Understanding essential problems of recognition system for work robot through the team activity. Collecting sensor and robot system data from real robot and applying AI algorithms to the robot system. Analyzing your test result and compile the report with countermeasures and improvement plans.

Phase2:
Joining a real robot project: The candidate will join a real mass production related research project of work robot. The candidate will develop and implement new algorithm for the robot.

《Period: 2nd to 3rd year》
Deliverables: Discussing about the possibility of robot system with team members. Collecting sensor and system data with using a real moving and working robot. Developing appropreate algorithm for recognition algorithm e.g., object detection, human detection/tracking, semantic segmentation, self-localization, mapping and so on. Writing report about the developed algorithm. Writing patent and/or paper about the algorithm.

International: Yes

Joining By: 1 October 2023

Salary Details

CTC:	8,852,500 JPY Per Annum
Gross:	8,290,000 JPY Per Annum
Base Salary:	5,800,000 JPY Per Annum
Joining Bonus:	0 JPY Per Annum
HRA:	1,030,000 (min) -1,030,000 (max) JPY Per Annum
Medical Allowance:	0 (min) -0 (max) JPY Per Annum
Other cash benefits part of gross:	1,460,000 (min) -1,460,000 (max) JPY Per Annum
RSUs:	0 JPY Per Annum
ESOPs:	0 JPY Per Annum
Performance/other bonuses:	562,500 (min) -1,125,000 (max) JPY Per Annum
Other cash benefits part of CTC:	0 (min) -0 (max) JPY Per Annum
Other Cash Benefits:	CTC Breakdown [Annual] ・Basic salary: 5,800,000 JPY ・Allowances(Meal, Commuting, etc): 460,000 JPY

- Allowance(Meal, Commuting, etc): 460,000 JPY
- House Rent: 1,030,000 JPY
- JPN language lesson: 1,000,000 JPY

After every 6 months of evaluation:
1. Output meets the assignments: no incentive (CTC: JPY 8290000)
2. Outstanding outputs: additional bonus of JPY 562500 (CTC: JPY 8290000+562500)
3. Supreme outputs: additional bonus of JPY 1125000 (CTC: JPY 8690000+1125000)
So maximum CTC a candidate can get after 1 year depending upon his performance is JPY 8290000+ 1125000+ 1125000 = JPY 10540000

Selection Process

Resume Shortlist:	No
Written Test:	No
Online Test:	Yes
Group Discussion:	No
Medical Test:	No
Personal Interview:	Yes
No. of Rounds:	2
No. of Offers:	3
Minimum CGPA:	N/A

Eligibility

Recruiting PHDs:	Yes
Eligible Departments:	B.Tech in Biochemical Engineering & Biotechnology, B.Tech in Chemical Engineering, B.Tech in Civil Engineering, B.Tech in Computer Science & Engineering, B.Tech in Electrical Engineering, B.Tech in Electrical Engineering (Power and Automation), B.Tech in Engineering Physics, B.Tech in Mathematics & Computing, B.Tech in Mechanical Engineering, B.Tech in Production & Industrial Engineering, B.Tech in Textile Engineering, B.Tech and M.Tech in Biochemical Engg & Biotechnology, B.Tech and M.Tech in Chemical Engineering, B.Tech and M.Tech in Computer Science & Engineering, B.Tech and M.Tech in Mathematics & Computing, M.Tech in Applied Optics, M.Tech in Atmospheric-Oceanic Science and Technology, M.Tech in Biomedical Engineering, M.Tech in Chemical Engineering, M.Tech in Communications Engineering, M.Tech in Computer Science & Engineering, M.Tech in Computer Technology, M.Tech in Construction Engineering & Management, M.Tech in Control & Automation, M.Tech in Cyber

Security, M.Tech in Electric Mobility, M.Tech in Energy & Environment Technologies and Management, M.Tech in Energy Studies, M.Tech in Engineering Analysis & Design, M.Tech in Environmental Engineering & Management, M.Tech in Fibre Science & Technology, M.Tech in Geotechnical and Geoenvironmental Engineering, M.Tech in Industrial Engineering, M.Tech in Instrument Technology, M.Tech in Integrated Electronics & Circuits, M.Tech in Materials Engineering, M.Tech in Mechanical Design, M.Tech in Molecular Engineering: Chemical Synthesis & Analysis, M.Tech in Optoelectronics & Optical Communication, M.Tech in Polymer Science and Technology, M.Tech in Power Electronics, Electrical Machines & Drives, M.Tech in Power Systems, M.Tech in Production Engineering, M.Tech in Radio Frequency Design & Technology, M.Tech in Rock Engineering & Underground Structures, M.Tech in Solid State Materials, M.Tech in Structural Engineering, M.Tech in Telecommunication Technology & Management, M.Tech in Textile Chemical Processing, M.Tech in Textile Engineering, M.Tech in Thermal Engineering, M.Tech in Transportation Engineering, M.Tech in VLSI Design Tools & Technology, M.Tech in Water Resources Engineering, M.Sc in Chemistry, M.Sc in Cognitive Science, M.Sc in Economics, M.Sc in Mathematics, M.Sc in Physics, M.S.(R) in Machine Intelligence & Data Science, M.S.(R) in Applied Mechanics, M.S.(R) in Biochemical Engineering and Biotechnology, M.S.(R) in Biological Sciences, M.S.(R) in Telecommunication Technology and Management, B.Tech in Civil Engineering and M.Tech in Geotechnical and Geoenvironmental Engineering, B.Tech in Civil Engineering and M.Tech in Water Resources Engineering, B.Tech in Civil Engineering and M.Tech in Structural Engineering, B.Tech in Civil Engineering and M.Tech in Construction Engineering & Management, M.S.(R) in Civil Engineering, M.S.(R) in Chemical Engineering, B.Tech in Textile Engineering and M.Tech in Computer Science & Engineering, B.Tech in Mechanical Engineering and M.Tech in Computer Science & Engineering, B.Tech in Electrical Engineering (Power and Automation) and M.Tech in Computer Science & Engineering, B.Tech in Biochemical Engineering & Biotechnology and M.Tech in Computer Science & Engineering, M.S.(R) in Computer Science & Engineering, Master of Design in Industrial Design, M.S.(R) in Electrical Engineering, M.S.(R) in Energy Science and Engineering, M.S.(R) in Sensors, Instrumentation and Cyber-physical System Engineering, M.S.(R) in VLSI Design Tools and Technology, B.Tech in Mechanical Engineering and M.Tech in Thermal Engineering, B.Tech in Mechanical Engineering and M.Tech in Computer Science & Engineering, M.S.(R) in Mechanical Engineering, M.S.(R) in Materials Science and Engineering, Post Graduate Diploma for Visionary Leadership in Manufacturing, Masters in Public Policy, M.S.(R) in Information Technology