



Iveco Group N.V.
Corporate Seat: Amsterdam,
the Netherlands
Chamber of Commerce
Registration no.
83102701

Iveco Group (MI: IVG) is a leading global automotive company active in commercial and special vehicles. It employs approximately 34,000 people worldwide and has 28 production sites and 29 R&D centres. Within the Group, FPT is the business unit specializing in the research, development and production of powertrains.

Around 270 highly qualified employees work at FPT Motorenforschung AG in Arbon, directly on the shores of Lake Constance in North-Eastern Switzerland. We are the leading innovation centre for FPT and play a central role in the development of future powertrain solutions (not only for diesel engines but also for electrified drivetrains, hybrid engines and fuel cells, as well as for novel engine concepts and fuel types) and are therefore at the forefront of a transition within Iveco towards a future of alternative propulsion systems.

To further grow our team, we are currently looking to fill the position as

Battery Algorithms Validation Engineer (f/m/d)

Your responsibilities:

- Developing the Algorithm concept based on cell technology and application
- Performing data analysis of experimental data and validate BMS algorithms
- postprocessing of simulation results required for development
- Design and develop the test cases for Algorithm validation with development and system team
- Write Simulink and MATLAB code to test and validation for BMS SOX algorithms
- Perform algo validation at MiL, SiL, HiL and component level to evaluate correctness and accuracy
- Create design and user documentation, validation plans and reports
- Collaborate with cross functional teams to define best strategies for SOX algorithms development
- Implement the control logic in Matlab-Simulink using a model-based approach (this includes function optimization for implementation in the embedded systems)

Our requirements:

- Master degree in relevant engineering fields such as Electrical or Mechanical Engineering or equivalent field experience in BMS algorithm design and development
- Strong knowledge and background in BMS algorithms approaches with a minimum of no less than 3-5 years of experience specifically in Battery Management Algorithm development
- Advanced programming skills in Matlab-Simulink
- Specific knowledge of Li-ion battery aging and performance indicators (SoC, SoH, SoX, SoF) and battery management algorithms (cell balancing, contactors control, charging, communication, etc.)
- Proven experience with adaptive and predictive algorithms such as Kalman Filters, and behavior model-based algorithms as well as with version control and requirement management tools
- Familiarity with working with cross-functional teams



- Thorough command of statistical analysis and visualization techniques
- Fluency (C1 or higher) in English as our business language is a must, with additional German and/or Italian skills being considered welcome assets.
- **A valid work permit for Switzerland is a compulsory requirement** (not needed if you are a Swiss citizen or hold a passport from an EU-26 or EFTA member state!)

Life at FPT/IVECO in Arbon

Arbon is located in North-Eastern Switzerland on the shores of Lake Constance 30 minutes from the German and Austrian borders offering an outstanding quality of living, with our site being based right at the lakefront. Lunchbreak by the water or meeting the family after work in the park? That will take you literally just seconds. Are you more into skiing, hiking or biking than watersports? The Swiss and Austrian mountains are at our doorstep. You prefer settling in a city over country life? St.Gallen, Eastern Switzerland's cultural and economic center with its world-renowned university is a mere 15 minutes' drive from Arbon (yes, we provide free parking) with distinctively more affordable costs of living than most of the other larger cities in Switzerland.

As Swissmem members, our working conditions are regulated by the **tariff of the Swiss machinery and metal industry**. We work a 40 hour week with flexible working hours, offer between 25 and 30 days of holidays per year depending on your age grade (plus another 5 to 6 days off as a compensation for 10 minutes extra per day, so in effect **30 to 36 days of holidays for a 40.83 hours week**), **home office** opportunities of **up to 12 days per month** (depending on the position) as well as an open-minded corporate culture with international and diverse teams, flat hierarchies and informal culture based on mutual respect. And, most importantly, we are providing a state-of-the-art environment for engineers in the automotive industry that is second to none within Switzerland and offers various career paths for all interests.

Interested?

Please send your application to recruitment.arbon@ivecogroup.com

FPT Motorenforschung AG, Schlossgasse 2, CH-9320 Arbon TG, Tel. +41 71 44 77 477, www.fpt-motorenforschung.ch