

1D Simulation Engineer

Dinex, Middelfart

Do you want to join our growth journey? Are you ready to walk the extra mile to create results? Dinex is looking for 1D Simulation Engineer. Working in Dinex holds many personal and professional development opportunities and for the right candidate great career opportunities in an exciting global environment.

Qualifications

- 2-3 years relevant experience or relevant student experience via internships or master thesis
- Deep understanding of reaction kinetics and reactor chemistry
- Understanding of diesel engine combustions and exhaust aftertreatment including the function of exhaust aftertreatment components DOC, DPF, SCR and ASC
- Basic understanding of control strategy of exhaust aftertreatment systems
- Mechanical or Chemical Engineering (Master or PhD)
- Several years of experience in the simulation of exhaust aftertreatment, experience with commercial simulation tools (axisuite, GT-Power, Boost), good knowledge of Matlab / Simulink
- Good English skills both written and oral

Success Criteria

- Succeed in reaction kinetics modelling method development and complete calibration of key emission components such as DOC, DPF, SCR, ASC and TWC
- Successful simulation/modelling driven development of new ATS projects
- Enable SIL/HIL transient SCR testing on engine dyno in collaboration with calibration engineer

Roles & Responsibilities

Primary work tasks (75% of work time)

- Technical support modelling of exhaust aftertreatment systems from HQ in customer projects and internal projects
- Dinex technical expert within exhaust aftertreatment modelling
- Planning, coordination and implementation of measurement campaigns to engine and synthetic gas test benches for the characterization of aftertreatment components
- Calibration of simulation models for exhaust aftertreatment systems with respect to backpressure, thermal, reaction kinetics, soot loading and regeneration.
- Development of automated calibration of simulation models of exhaust gas aftertreatment systems based on experimental data from engine and synthetic gas test benches
- Development and maintenance of a database for calibrated exhaust aftertreatment components
- Development of simulation-based validation method for emission control systems on engine and synthetic gas test benches
- Comparison and validation of simulation results with engine dyno testing
- Conducting simulation-based studies on the performance of components and systems for exhaust aftertreatment for the design and validation
- Efficient usage of software via automatic scripting and upgrades of software
- Documentation and presentation of the results of simulation studies for internal and external customers

Secondary work tasks (25% of work time)

- Definition, evaluation, documentation and presentation of measurement campaigns on engine or chassis dyno

In case you have any questions, feel free to contact Head of Product Management ATS OEM, Kasper Steen Andersen (KSA) at +45 4013 2481

Please send your application to our HR department by email to hr@dinex.dk as soon as possible. [Here](#) you can find how we handle your personal information.

The actual start date will be set upon further agreement.

The Dinex Group is a leading global manufacturer and distributor of innovative engineered exhaust and emission control products and solutions for the heavy duty and gas engine industry. Today, the Dinex Group, headquartered in Denmark, operates through 16 companies and employs approximately 1400 dedicated people worldwide. The Dinex Group is present in 14 different countries with production and sales facilities in Denmark, UK, Finland, Germany, Latvia, USA, Turkey, Russia and China. Additionally, the Dinex Group has sales companies in Spain, Italy, France, Germany, UK, Poland and Serbia.

going the extra mile

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