SiP Simulation and Virtual Prototyping Specialist (m/f/d)

Ihre Aufgaben

The SiP Simulation and Virtual Prototyping Specialist (m/f/d) is responsible for following tasks:

- Establishing and maintaining the multidisciplinary simulation and electronic design automation tool chain required for SiP feasibility and design studies
- Responsibility for electrical, thermal, mechanical and thermo-mechanical modeling of SiP concepts across die, interconnect, package and board boundaries
- Defining model requirements, simulation methods, boundary conditions, correlation approaches and sign-off criteria
- Producing traceable simulation evidence that supports architecture selection, package design decisions and technical risk reduction
- Integrating external partner models and results into a controlled and reusable AESS virtual development environment
- Defining the SiP simulation strategy and selecting, configuring and integrating suitable tools for signal integrity, power integrity, thermal, mechanical, thermo-mechanical and reliability analysis
- Building parameterized models of dies, chiplets, passives, interconnects, substrates, interposers, package materials, heat paths and relevant board interfaces
- Performing signal-integrity analyses for die-to-die and external interfaces, including insertion loss, return loss, crosstalk, timing margins and channel compliance
- Performing power-integrity analyses covering power-delivery-network impedance, voltage drop, current density, simultaneous switching effects and decoupling concepts
- Performing steady-state and transient thermal analyses and evaluating junction temperatures, thermal gradients, heat spreading and cooling concepts
- Performing mechanical and thermo-mechanical analyses covering package warpage, stress, strain, fatigue and reliability risks of interconnects and material interfaces
- Defining simulation inputs, model fidelity, material properties, meshing strategies, boundary conditions, uncertainty ranges and acceptance criteria
- Correlating models with supplier data, analytical calculations, measurements or prototype results and document model limitations and confidence
- Automating repeatable simulation workflows, design-space exploration, result post-processing and reporting using suitable scripting methods
- Maintaining simulation libraries, templates, version control, documentation and interfaces to package design and system-level modeling environments

Ihr Profil

Job ID
REF81745T

Arbeitsbereich
Engineering

Standort
Regensburg

Leadership Level
Leading Self

Ansprechpartner
Sarah Schwarz

Rechtliche Einheit
AUMOVIO Germany GmbH

- Academic degree in Electrical Engineering, Microelectronics or comparable qualification
- In-depth experience in semiconductor technology
- Longterm experience in IC design methodology and EDA tools
- Several years of experience in multiphysics simulation for semiconductor packages, electronic assemblies or heterogeneous integration
- In-depth experience in at least two of the following domains
  - signal integrity
  - power integrity
  - thermal analysis
  - mechanical analysis
  - thermo-mechanical reliability
- Experience with relevant simulation environments such as Ansys, Cadence, Siemens or equivalent industry tools
- Deep Knowledge of package and substrate structures, material properties, interconnect technologies and semiconductor package failure mechanisms
- Experience with model-order reduction, compact models, parameter extraction, sensitivity analysis and design-space exploration is preferred
- Experience in simulation workflow automation and scripting, for example with Python preferred
- Experience correlating simulation results with measurements, supplier models or prototype data is preferred
- Business fluent English language skills (written and spoken), German language skills desirable
- Initiative - self-confident, takes ownership and acts proactively
- Ability to learn continuously by being open and flexible to new tasks/fields
- Good communication skills
- Customer focus - anticipates and understands the customers' needs
- Motivation and Inspiration
- Team player and contributes towards team goals
- Analytical thinking
- Methodological rigor
- Tool-chain ownership
- Cross-domain collaboration

Applications from severely handicapped people are welcome.

Unser Angebot

- Next to the interesting daily work the region around Regensburg is offering a high recreational value and quality of life.
- Profit from extensive benefits at the location such as different canteens and cafeterias, a continuing education and training, health management, physiotherapy and much more.
- We offer an attractive salary as well as the possibility of hybrid and cross-border mobile work.
- For an improved work-life balance we support you with various initiatives for a better compatibility of family and career such as flexible work time model, part-time option, sabbatical, etc.
- You can expect a highly motivated team as well as diverse topics and projects in the global environment of the automotive industry.

- We are promoting lifelong Learning combined with personal and professional development.
- You are looking for an individual working time model? We support part-time work.

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Über uns

Since its spin-off in September 2025 AUMOVIO continues the business of the former Continental group sector Automotive as an independent company. The technology and electronics company offers a wide-ranging portfolio that makes mobility safe, exciting, connected, and autonomous. This includes sensor solutions, displays, braking and comfort systems as well as comprehensive expertise in software, architecture platforms, and assistance systems for software-defined vehicles. In the fiscal year 2024 the business areas, which now belong to AUMOVIO, generated sales of 19.6 billion Euro. The company is headquartered in Frankfurt, Germany and has about 87.000 employees in more than 100 locations worldwide.