

Haswanth Kusumanchi

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Germany

📅 21/05/2003 (Kakinada, India)

🚩 Indian

🌐 Haswanth Kusumanchi



ABOUT ME

Highly motivated engineering professional currently pursuing an M.Sc. in Materials Science and Engineering at TUHH, Germany. Holds a foundational B.Tech in Mechanical Engineering from NIT Rourkela and IIT Hyderabad. Gained valuable industry experience as a Project Planner at AMNS India, specializing in SAP systems and mechanical project planning over a one-year period. Demonstrated leadership and technical skill as the Chassis and Manufacturing Lead for NIT Rourkela's Formula Student team, continuing to apply this expertise in the chassis department of e-ognition at TUHH.

EDUCATION AND TRAINING

10/2025 – Present
Hamburg, Germany

Master of Science (M.Sc.), *Hamburg University of Technology (TUHH)* 
Field of study: Materials Science and Engineering
Specialisation: Engineering Materials
Current Average Grade: 1.2
Expected End date: 09/2027

08/2023 – 05/2024
Hyderabad, India

Exchange Studies (B.Tech.), *Indian Institute of Technology Hyderabad* 
Field of study: Mechanical Engineering
Final grade: 9.0

10/2020 – 06/2024
Rourkela, India

Bachelor of Technology (B.Tech.), *National Institute of Technology Rourkela* 
Field of study: Mechanical Engineering
Final grade: 8.48

06/2018 – 06/2020
Vijayawada, India

Intermediate Public Examination (Class XII), *FIITJEE Junior College, Vijayawada*
Board: Board of Intermediate Education, Andhra Pradesh, India
Final grade: 8.96

06/2017 – 05/2018
Vijayawada, India

Secondary School Examination (Class X), *Delhi Public School Nidamanuru*
Board: Central Board of Secondary Education (CBSE)
Final Grade: 78.8%

PROFESSIONAL EXPERIENCE

05/2026 – Present
Hamburg, Germany

Airbus Operations GmbH, *Working student in Additive manufacturing and Digitalisation*

- Support new product development (NPD) initiatives for advanced maintenance tools and Ground Support Equipment (GSE).
- Apply additive manufacturing methodologies to design, iterate, and optimize components for weight reduction and functionality.
- Assist in driving the digitalization of tooling workflows to streamline engineering data and improve operational efficiency.
- Collaborate with cross-functional teams to integrate modern manufacturing techniques into legacy aerospace tooling processes.

11/2025 – 03/2026 Hamburg, Germany	Fraunhofer IFAM, Project work As part of Fishing for experience program at TUHH, I am currently working with Fraunhofer IFAM on a project work on the design and simulation of a thermoplastic release-film preforming test platform for composite manufacturing
09/2025 – Present Hamburg, Germany	e-gnition Hamburg e.V., Team Member – Chassis Department Chassis Department Member e-gnition, Formula Student Team, TUHH, Hamburg, Germany - Part of the new egn-26 team, for designing and manufacturing of new Formula Student car for the upcoming season of Formula Student. - Currently working on chassis ergonomics and seat design.
07/2024 – 08/2025 Kirandul, India	ArcelorMittal Nippon Steel India, Graduate Engineering Trainee (GET) Graduate Engineering Trainee (Project Planning) Iron Ore Beneficiation Plant, AM/NS India, Kirandul - Planned and coordinated major capital expansion projects to boost the plant's capacity from 8 MMTPA to 12 MMTPA. - Worked as the project planner for the Iron Ore Tails Processing and Filtration Plant project, ensuring timely resource allocation and scheduling. - Managed project workflows and documentation using proficiency in SAP (MM module) and other softwares for accurate tracking and control. - Developed comprehensive reports, schedules, and presentations using Microsoft Office apps like Microsoft Project to streamline communication and monitor project progress.
05/2023 – 07/2023 Gandhinagar, India	Indian Institue of Technology, Gandhinagar, Summer Internship The project focuses on utilizing FEM techniques to analyze residual stresses in additive manufacturing. By investigating process parameters and material properties, valuable insights are being gained into their impact on the resulting residual stresses. The goal is to optimize additive manufacturing processes, enhancing component quality and reliability.
08/2021 – 05/2024 Rourkela, India	Team Road Runner Electric (TRR), Formula SAE, Chassis and Manufacturing Lead Led the structural development of a Formula Student chassis, performing material characterization and 3D modeling in CATIA V5 and SolidWorks. Conducted comprehensive FEA for impact and torsional stiffness to ensure a safe, weight-optimized design, while overseeing final manufacturing and assembly to ensure precision alignment with digital specifications.

PROJECTS

08/2023 – 05/2024	Effect of molten pool thermal history on laser cladding of Stellite 6 + TiB, <i>Bachelor Thesis</i> This project explores the versatile applications of Stellite 6, renowned for its exceptional resistance to corrosion, wear, and erosion in extreme conditions. By incorporating ceramic particles, such as TiB (20%), during laser cladding, the study investigates the impact of varying scan speed and laser power on molten pool thermal history. The resulting changes in microstructure and TiB particle integrity contribute to enhanced wear resistance, particularly at elevated scan speeds.
05/2023 – 07/2023	Residual stress Modelling during Additive manufacturing using FEM techniques The project as part of the summer research Internship at IIT Gandhinagar focuses on utilizing FFM techniques to analyze residual stresses in additive manufacturing. By investigating process parameters and material properties, valuable insights are being gained into their impact on the resulting residual stresses. The goal is to optimize additive manufacturing processes, enhancing component quality and reliability.

01/2023 – 05/2023

Review and Analysis of remote sensing techniques in Underwater robots

This project at IIT Guwahati is focused on designing, manufacturing, and analyzing underwater robots for deep-water excavations. This entails creating an efficient robot frame and strategically positioning thrusters to facilitate seamless movement.

10/2021 – 11/2021

Implementation and Effectiveness of Solar - Wind Hybrid charging stations

The research project on charging stations for electric vehicles aims to establish an efficient and sustainable charging infrastructure network by integrating a hybrid network of renewable energy sources like Solar and Wind energy.

TECHNICAL SKILLS

- SAP
- ANSYS Explicit Dynamics
- Matlab/Simulink
- Adobe Premiere Pro
- Formula Student
- Solidworks, Inventor, Catia
- ANSYS Workbench, ANSYS Fluent
- Autodesk Fusion360
- Microsoft Office
- Ansys Mechanical
- Python
- AutoCad
- Electric Vehicle Technology

LANGUAGES

ENGLISH
C1 (IELTS)

GERMAN
A1 (Goethe A1)

TELUGU
Native

HINDI
Native

NETWORKS AND MEMBERSHIPS

10/08/2021 – Present
Rourkela

Society of Automotive Engineers (SAE) India, *Member*

As a committed member of the Society of Automotive Engineers (SAE) as a team lead of Team Road Runner Electric (TRR), a Formula student team of NIT Rourkela, I have actively contributed to the organization's mission, participating in various automotive projects and competitions. Through my involvement, I've cultivated a passion for innovation, teamwork, and advancing the field of automotive engineering, reflecting a dedication to excellence in the pursuit of cutting-edge solutions.

11/2020 – 11/2021
Rourkela, India

National Service Scheme (NSS), *Member*

As a member of the National Service Scheme (NSS) India, I have actively engaged in community service and social initiatives, demonstrating a strong commitment to making a positive impact on society. Through my volunteer work, I have honed a service-oriented mindset, showcasing a passion for community development and a sense of responsibility towards society's well-being.

CONFERENCES

12/2023
Chennai, India

International Conference on Material Processing using Lasers and Surface Engineering (IMPULSE'23), *Indian Institute of Technology, Madras*

Presented a paper on the topic "Effect of molten pool thermal history on laser cladding of Stellite 6 + TiB"