



enGlobe

engineers go global

THI Scholarship Program for Internships (Praxissemester/Abschlussarbeit)

August-December 2022

at

Renault do Brasil (Curitiba, Brazil)

VW Argentina (Buenos Aires, Argentina)

Apply until **March 31,**
2022 for the winter
semester 2022/23!



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What is enGlobe?

englobe – engineers go global is a DAAD funded project at THI which offers 4 scholarships to THI students for internships of 5 months (01.08.-31.12.) in English at Renault do Brasil (Curitiba, Brazil) and VW Argentina (Buenos Aires, Argentina) each year from 2020-2023.

The offered internships in this catalogue are directly connected to the *enGlobe* scholarship 2022, which is automatically granted to successful applicants (no separate application necessary).

The scholarship includes:

- Single travel allowance (fixed sum, for all travel costs): 1.575€ (Brazil) / 1.875€ (Argentina)
- Monthly scholarship rate: 1.175€ (Brazil) / 1.075€ (Argentina)

The internship itself does not include any remuneration or further financial support.

Who can apply?

Primarily students of one of the following undergraduate THI study courses:

- Mechatronik
- Elektro- und Informationstechnik
- Wirtschaftsingenieurwesen
- Fahrzeugtechnik
- Maschinenbau
- Elektrotechnik und Elektromobilität

The internship can be recognized for the **“Praxissemester”** or combined as voluntary internship with the **final thesis**. Sufficient **English language skills (min. B2)** are required for all internships.

Undergraduate students from other study courses can also apply as long as they fulfill the requirements and explain their reasons for application in their motivation letter.

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How to apply?

The following documents have to be submitted **as one pdf file (max. 15 MB)** to enGlobe-internships@thi.de until **March 31, 2022 (23:59)**¹:

- Application form (<https://aware.thi.de/studium-praktikum/brasilien-argentinien/englobe-internships/>), where you can indicate 1-2 internship offer(s) for which you would like to apply
- Motivation letter (1-2 pages) explaining choice of internship offer(s) (preferably in English)
- CV (max. 2 pages) in English
- Current transcript of records in English
- Optional: Proof of sufficient English language skills (min. B2)
- Optional: Proof of Portuguese and/or Spanish language skills
- Optional: Proof of international experience (studies/internships abroad, participation in international conferences/seminars/courses etc., active membership in international organizations etc.)

If you have further questions, please read our FAQ (in German) and/or contact:

Felix Reinhardt, *enGlobe* project coordinator THI

enGlobe-internships@thi.de

+49 841 9348-6516

¹ By sending your application including your personal data, you confirm that THI is allowed to use it for organizational purposes during the selection procedure, the internship, for statistics and alumni activities.



Offers at Renault in Curitiba (Brazil) Development of Industry 4.0 solutions/Production Engineering – Tooling and Support Department

in cooperation with the Federal University of Paraná (UFPR)

Renault do Brasil S.A. is a subsidiary of the Groupe Renault that was established in Curitiba/BR in the year 1998, placed in the Complexo Ayrton Senna, comprising four plants: CVP, CVU, CMO and CIA. Renault currently produces a range of vehicles and vans for the Latin America market, and has the ambition to feature in the TOP-3 of the regional market.

To support Renault in the industrial strategy, there is the PE-TS (Production Engineering – Tooling and Support Department) with the responsibility to deploy the concepts of Industry 4.0 oriented to the maintenance activities.

The **Federal University of Paraná** (UFPR) in Curitiba is a long-standing strategic partner of THI in the automotive network AWARE. UFPR supports this internship program by offering to the interns Portuguese classes and administrative support in visa questions. In case the intern would like to write his/her final thesis connected to the internship and has found a supervisor at THI, the partner university can also support in supervising the thesis on site.

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Offer I:

Internship Responsibilities

The internship tasks will be related to the development of I-4.0 solutions capable to increase the performance of the Renault plants, 80% centered in conditional maintenance data-driven systems, including:

- data-collection, transmission and storage;
- data-analyzing by classification and clustering methods, numerical modeling, etc.;
- automatic pattern recognition; and
- man-system interface development (i.e.: dashboards, reports, etc.);

The supervisor for this project is an eighteen years experienced maintenance manager, with total openness to new ideas on I-4.0.

Requirements

- Primarily students of one of the following undergraduate THI study courses: Mechatronik, Elektro- und Informationstechnik, Wirtschaftsingenieurwesen, Fahrzeugtechnik (students from other study courses can also apply)
- Advantageous: knowledge of conditional-based maintenance methods
- Advantageous: knowledge of vibration, thermal and other physical quantities measurements
- Advantageous: knowledge of statistics, time-domain, frequency-domain, neural-networks and fuzzy-logics
- Programming skills (VBA, Python, MATLAB and Simulink, others)

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Offer II:

Internship Responsibilities

The internship tasks will be focused on the development of a line balancing system to optimize human and material resources, improve and define the better component assembly sequence and ensure ergonomics. The expected skills to do this project are in:

- Data Mining
- Artificial Intelligence
- Data visualization (PowerBI or Tableau)
- Knowledge in automotive process, mainly assembly lines

You will be integrated in the technical team, your supervisor is an eighteen years experienced expert in the Automotive Industry, leading teams in Maintenance, Manufacturing and Engineering.

Requirements

- Primarily students of one of the following undergraduate THI study courses: Mechatronik, Elektro- und Informationstechnik, Wirtschaftsingenieurwesen, Fahrzeugtechnik (students from other study courses can also apply)
- Statistics and Math
- Programming skills (Python, R)
- Teamwork skills (communication, decision making, organization and planning, etc.)



Volkswagen Argentina

III. Offer at VW Argentina in Buenos Aires (Argentina) Electrical and Electronic testing analysis and failure diagnosis on MQB to MEB platform/Department of Quality Assurance in cooperation with Technical University of Argentina, FRGP (UTN)

Volkswagen Argentina is the biggest car manufacturer in Argentina, located in General Pacheco, Buenos Aires State, producing cars and pick-ups.

Your internship will take place in the Quality Assurance Department, dealing with analysis procedures on the complete vehicle. Your main task is to develop a theoretical and practical framework or guideline in order to find and analyze the failures that might occur on the MQB network infrastructure, keeping in mind the increasing complexity to reach the latest electrical-vehicle-on-board-network (MEB). You will be provided with a description of the necessary equipment in order to make material testings, functional analysis and diagnosis for electric and electronic parts of the complete vehicle. You will work full-time in our plant; attending to technical or Spanish classes at UTN in the evening is possible.

Technical University of Argentina (UTN) in Buenos Aires is a strategic partner of THI in the automotive network AWARE. UTN supports this internship program offering Spanish classes and administrative support in visa questions. In case you would like to write your final thesis connected to this topic and you have identified a supervisor at THI, UTN can also support in supervising the thesis on site. Furthermore, UTN is offering rooms for exchange students in its student residency on its campus, next to VW.

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Requirements

- Primarily students of one of the following undergraduate THI study courses: Mechatronik, Elektro- und Informationstechnik, Maschinenbau, Wirtschaftsingenieurwesen, Fahrzeugtechnik, Elektrotechnik und Elektromobilität (students from other study courses can also apply)
- Proactive and communicative attitude skills are necessary to interact with the different areas. In addition, the intern should be interested in searching technical information on new electronic vehicles and in being part of the analysis team to carry out practical and functional electric tests on the complete vehicle.

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Volkswagen Argentina

IV. Offer at VW Argentina in Buenos Aires (Argentina) Digitalization and application of industry 4.0-concepts/Department of Production

in cooperation with Technical University of Argentina, FRGP (UTN)

Volkswagen Argentina is the biggest car manufacturer in Argentina, located in General Pacheco, Buenos Aires State, producing cars and pick-ups.

Your internship will take place in the production area, dealing with optimization procedures of the production line and analyzing the possible implementations with the Pilot Hall area.

The main objective of your internship is to analyze and identify new potential opportunities of digitalization for the already implemented process and operations, in order to apply concepts of Industry 4.0 and traceability in our plant. You will work in a specialized team and you will receive training and support regarding current Industry 4.0 concepts of the more experienced specialists. You will work full-time in our plant; attending to technical or Spanish classes at UTN in the evening is possible.

Technical University of Argentina (UTN) in Buenos Aires is a strategic partner of THI in the automotive network AWARE. UTN supports this internship program offering Spanish classes and administrative support in visa questions. In case you would like to write your final thesis connected to this topic and you have identified a supervisor at THI, UTN can also support in supervising the thesis on site. Furthermore, UTN is offering rooms for exchange students in its student residency on its campus, next to VW.

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Requirements

- Primarily students of one of the following undergraduate THI study courses: Mechatronik, Elektro- und Informationstechnik, Maschinenbau, Wirtschaftsingenieurwesen und Fahrzeugtechnik, Elektrotechnik und Elektromobilität und Elektromobilität (students from other study courses can also apply)
- Proactive attitude and fluent communicative skills are necessary to have a successful contact with different areas and to make a team building.

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