Vacancies URE

For more information please send an email to universityracing@tue.nl

Open applications are always welcome. For a BEP, internship or graduation thesis please contact us to discuss possibilities.
DEPARTMENTS

BOARD

OVERALL TECH

CHASSIS

AERODYNAMICS

POWERTRAIN AND DRIVETRAIN

VEHICLE DYNAMICS

ELECTRONICS AND SOFTWARE

CONTROL

AUTONOMOUS SYSTEMS

BUSINESS PLAN

COST

OPERATIONS

ACQUISITION

Educating the engineers of the future
Board

Educating the engineers of the future
Vacancy

Chief Executive Officer

**Occupation**

Full-time board

**Department**

Board/Team/Operations/Public Relations/Business Plan

**Job description**

Throughout the next season you will be the chief of the team, operations and public relations. You will be the face of the team and will be responsible for everything that happens in the team. As the CEO you must guide the team in the right direction together with the rest of the board.

Besides the top level you will be responsible for the operations and public relations department of URE. Furthermore, you are also responsible for the business plan to be made for the competition.

**Profile**

The CEO is mature, has a strong long-term vision for the team’s direction and can communicate this clearly.

**Preferences:**

- Bachelor finished or nearly finished
- Strong communication and management skills
- Networking skills
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic and motivated student who is interested in automotive. As the CEO you will be the face of the team thus it is especially important to give it all and radiate energy at all times.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to an internship or more.

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Vacancy

Chief Financial Officer

**Occupation**

Full-time board

**Department**

Board/Finance/Cost/Account

**Job description**

Throughout the next season you will be responsible for the financial administration and the cost report to be handed in for the competition. Furthermore, you will function as the account manager for URE. Your main tasks as CFO will comprise of treasury duties, financial risk management and financial reporting. As an account manager you will be responsible for partner acquisition and communication, assisted by a relevant technical manager for technical matters. Furthermore, you will be responsible for events such as fairs which are either in cooperation with partners or potential partners can be contacted on these fairs. Furthermore, you will be part of the board steering URE in the right direction in financial terms.

**Profile**

The CFO is mature, has a strong eye for detail. The CFO is very approachable but can be strict and direct when necessary.

**Preferences:**

- Bachelor finished or nearly finished
- Strong communication and management skills
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic and motivated student who is interested in automotive. As the CFO you will be responsible for the financial side of the team, therefore it is required to be very detail oriented. It is desired that you are a strong speaker who is comfortable with speaking to new people and giving presentations.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

**Educating the engineers of the future**
Vacancy

Chief Technical Officer

Occupation

Full-time board

Department

Board/Overall Tech/Planning/Design judging/Tooling

Job description

Throughout the next season you will be the chief of the technical side of the team. As the CTO you are the end responsible for the design of the whole car. You are responsible in creating the specifications for the engineers, implementing systems engineering and doing the final design review before your approval. After approval you will make the complete CAD assembly for the whole car from the subsystems. Finally, you will be responsible for the design documentation and preparation for the design judging event of the competition. To accomplish all of this you are responsible for the design planning in cooperation with the production manager for the production planning.

Furthermore, you are part of the board and will steer URE in the right direction in technical terms, this includes research into possible new technologies for future implementation.

Profile

The CTO is a technical person who has a strong long-term vision for the team's technical direction and can communicate this clearly.

Preferences:

- Bachelor finished
- Strong communication, planning and management skills
- Basic knowledge on both mechanical and electrical workings of an electric car
- Experience working with multidisciplinary projects
- Affinity with Siemens NX, Matlab and Simulink preferred
- No 9 to 5 mentality
- Team player

What's asked/offered

We are looking for an enthusiastic and motivated student who is highly interested in automotive. As the CTO you must be a technical and experienced person willing to give it all.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Overall Tech

Educating the engineers of the future
Vacancy

Lead Test Engineer

**Occupation**

Full-time engineering

**Department**

Overall Tech/Testing

**Job description**

Throughout the next season you will be the chief of testing. This includes testing, car maintenance and workshop organization. As the lead test engineer, you are responsible for tests to be carried out as efficiently as possible both on and off the track. Technical managers forward test plans for you to review, once approved you plan a test day taking several factors into account such as weather, testing crew and possibly other priorities. After that you will lead the test crew and carry out the tests. Next to that you are responsible for car maintenance, this not only includes repairs but also setting set-up and set-down of the car for test days. You will be responsible in organizing acquired test data and general data analysis/troubleshooting.

Furthermore, you will be responsible for creating a driver and a mechanics training program.

**Profile**

The lead test engineer is a practical person with strong organizational skills

**Preferences:**

- Bachelor ME/AU finished or nearly finished
- Affinity with Matlab/Simulink
- Basic knowledge of both mechanical and electrical workings of an electric car
- Pragmatic
- Able to keep your cool in a highly dynamic environment
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, practical and motivated student who is interested in automotive. Specific interest in racing and race cars is desired. As the lead test engineer, you will spend a big portion of your time testing, this can also be in the weekend and will also include a lot of non-office hours.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

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Vacancy

Production Engineer

Occupation

Full-time management

Department

Overall Tech/Production

Job description

Throughout the next season you will be the chief of production. This includes all subcomponents and tools necessary. You will do the second design review together with the engineer, focused mostly on reviewing manufacturability of the components, technical drawings and ensuring they meet the specifications. Once approved by the CTO you will make sure the subcomponent gets produced, this includes creating a production planning in cooperation with the CTO for the design planning.

Furthermore, once made official by the CFO, you will be in direct contact with our manufacturing partners ensuring the planning is as optimal as can be to meet our deadlines. You will discuss our partners’ manufacturing capabilities and minimize production issues, both in technical terms and in logistical terms. This mostly happens during the design period, but you will also do research into potential new production methods and potential partners which are capable of this.

Profile

The production manager is a practical person with prior hands-on production experience.

Preferences:

- Bachelor ME finished or nearly finished
- Strong communication and planning skills
- Affinity with Siemens NX
- Hands-on experience with basic production methods and technical drawings
- Basic knowledge on electronics manufacturing is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, practical and motivated student who is interested in automotive. As the production manager you will be the go-to for practical issues thus prior experience is highly desired.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Technical Manager
Chassis & Aerodynamics

**Occupation**

*Full-time management*

**Department**

*Overall Tech/Chassis/Aerodynamics*

**Job description**

Throughout the next season you will be the chief of the chassis and the aerodynamics departments. You will be responsible for the design in your department and subsequently the supervision of your engineers. You make sure every part will be compliant to the specified rules and will be designed according to specifications. Next to that you will be responsible for handing in the required documents like for example the Structural Equivalency Spreadsheet (SES). You will do the first design review catching any major flaws. You will also review any test plans before they are sent to the lead test engineer.

You will make sure your engineers have all the tools they need. To accomplish this, you will take care of the technical side in partner communication, this includes professors from the university.

**Profile**

The technical manager is a person with technical knowledge but above all a strong communicator.

**Preferences:**

- Bachelor ME finished or nearly finished
- Strong communication and management skills
- Affinity with Siemens NX/ANSYS is preferred
- Basic knowledge on composites and fluid dynamics
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. As a technical manager you will be the end responsible for the design. Technical knowledge is necessary, but management and communication skills are more important.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

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Vacancy

Technical Manager
Electronics and Software & Control

Occupation

Full-time management

Department

Overall Tech/Electronics and Software/Control

Job description

Throughout the next season you will be the chief of the electronics and software and the control departments. You will be responsible for the design in your department and subsequently the supervision of your engineers. You make sure every part will be rules compliant and will be designed according to specifications, part of this is the Electronic System Form (ESF) to be handed in. You will do the first design review catching any major flaws. You will also review any test plans before they are sent to the lead test engineer. You will make a departmental planning which will be approved by the CTO. Next to that you will be in contact with the CFO regarding costs.

You will make sure your engineers have all the tools they need. To accomplish this, you will take care of the technical side in partner communication, this includes professors from the university.

Profile

The technical manager is a person with technical knowledge but above all a strong communicator.

Preferences:

- Bachelor EE/AU/SS finished or nearly finished
- Strong communication and management skills
- Affinity with Altium Designer/LTSpice/C/Matlab/Simulink is preferred
- Basic knowledge on electronics, e-manufacturing and control
- No 9 to 5 mentality
- Team player

What's asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. As a technical manager you will be the end responsible for the design. Technical knowledge is necessary but management and communication skills are more important.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Technical Manager
Powertrain and Drivetrain

**Occupation**

*Full-time management*

**Department**

*Overall Tech/Powertrain/Drivetrain*

**Job description**

Throughout the next season you will be the chief of the powertrain and drivetrain department. You will be responsible for the design in your department and subsequently the supervision of your engineers. You make sure every part will be rules compliant and will be designed according to specifications, part of this is the Electronic System Form (ESF) to be handed in. You will do the first design review catching any major flaws.

**Profile**

The technical manager is a person with technical knowledge but above all a strong communicator.

**Preferences:**

- Bachelor ME/AU finished or nearly finished
- Strong communication and management skills
- Affinity with Siemens NX/Matlab is preferred
- Basic knowledge on power electronics, electric machines and drivetrains
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. As a technical manager you will be the end responsible for the design. Technical knowledge is necessary, but management and communication skills are more important.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more

_Educating the engineers of the future_
Vacancy

Technical Manager
Suspension and Vehicle Dynamics

Occupation

Full-time management

Department

Overall Tech/Suspension/Vehicle Dynamics

Job description

Throughout the next season you will be the chief of the suspension and vehicle dynamics department. You will be responsible for the design in your department and subsequently the supervision of your engineers. You make sure every part will be rules compliant and will be designed according to specifications. You will do the first design review catching any major flaws. You will make sure your engineers have all the tools they need. To accomplish this, you will take care of the technical side in communication with partners, this includes professors from the university.

Profile

The technical manager is a person with technical knowledge but above all a strong communicator.

Preferences:

- Bachelor ME/AU finished or nearly finished
- Strong communication and management skills
- Affinity with Siemens NX/Matlab/Simulink is preferred
- Followed vehicle dynamic courses (BSc and/or MSc) or background in vehicle dynamics
- Interest in race cars
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. As a technical manager you will be the end responsible for the design. Technical knowledge is necessary but management and communication skills are more important.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Chassis

Educating the engineers of the future
Vacancy

Lay-up Engineer

Occupation

Part-time engineering

Department

Chassis

Job description

Throughout the next season you will be responsible for the lay-up design for the monocoque, aerodynamic package and the accumulator casing. These parts consist of multiple layers of carbon or glass fibre, combined they form a laminate or lay-up. In the case of the monocoque this exists of multiple areas with different specifications. Your task is to design, simulate and test the lay-ups necessary to build the monocoque and accumulator casing. You will mostly use ANSYS or MSC Marc/Mentat to predict the failure point of the composite panels. After design and simulation you will produce composite test panels for a three point bending test and a push through test used to validate your design. Finally you will document your observations to improve the FEM models.

You will stay in close contact with your technical manager and the rest of your department. Besides the above mentioned responsibilities you will also help in the design and production of the monocoque in collaboration with the material engineer and the chassis manager.

Profile

The lay-up engineer is a technical person with interest in material sciences.

Preferences:

- Bachelor ME finished or nearly finished
- Affinity with ANSYS (or MSC Marc/Mentat) is preferred
- Basic knowledge on composites is preferred
- Knowledge on testing procedures is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend at least 15h/week, averaged over the year.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

HV Mounting Engineer

Occupation

Part-time engineering

Department

Chassis

Job description

Throughout the next season, you will be responsible for the mounting of the accumulator. This is currently done through alignment brackets at the firewall and bolts through the rear, although it is believed that weight can be saved by designing a new mounting which makes use of a different mounting concept. Therefore, it is your responsibility to make sure that the accumulator is mounted in a light, structurally decent and rule compliant manner.

You will stay in close contact with your technical manager and the rest of your department. Besides this, you will work closely together with the accumulator engineer to make sure that the accumulator is mounted correctly to the chassis.

Profile

The material engineer is a technical person with interest in material sciences.

Preferences:

- Bachelor ME finished or nearly finished
- Affinity with ANSYS (or MSC Marc/Mentat) is preferred
- Basic knowledge on composites and material mechanics is preferred
- Knowledge on testing procedures is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend at least 15h/week, averaged over the year.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Material Testing Engineer

Occupation
Part-time engineering

Department
Chassis

Job description
Throughout the next season you will be responsible for characterisation and analysis of the carbon and glass fibre materials that are used by URE. All the used FEM simulations programs should provide future users’ results that are as close to reality as possible. First you will do research on the materials used. These materials must be tested through tests such as tensile tests, compressions tests and durability tests. You will set up and perform these tests. After you have obtained the necessary data you will design and improve the FEM models that will be used for the design of the components.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for the performed tests.

Besides the above mentioned responsibilities you will also help in the design of the monocoque in collaboration with the lay-up engineer and the chassis manager.

Profile
The material engineer is a technical person with interest in material sciences.

Preferences:
- Bachelor ME finished or nearly finished
- Affinity with ANSYS (or MSC Marc/Mentat) is preferred
- Basic knowledge on composites and material mechanics is preferred
- Knowledge on testing procedures is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend at least 15h/week, averaged over the year.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Driver Ergonomics Engineer

Occupation
Part-time engineering

Department
Chassis

Job description
Throughout the next season you will be responsible for the ergonomics of the driver and will ensure comfort of the driver during the races. This includes designing the seat incorporating the perfect pedals and steering wheel layout and including adjustability for different drivers.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing these composite test panels.

Besides the above mentioned responsibilities, you will also help in the design of the monocoque in collaboration with the material engineer and the chassis manager.

Profile
The driver ergonomics engineer is a technical person with interest in material sciences.

Preferences:
- Bachelor ME finished or nearly finished
- Affinity with ANSYS (or MSC Marc/Mentat) is preferred
- Basic knowledge on composites is preferred
- Knowledge on testing procedures is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Aerodynamics

Educating the engineers of the future
Vacancy

Lead Aerodynamics Engineer

Occupation

Full-time engineering

Department

Aerodynamics

Job description

Throughout the next season you will be responsible for the design and validation of the aerodynamic package. The package consists of a front and rear wing, sidepods, undertrays and a diffuser. You will not have to design all the parts, but you will perform CFD simulations on the entire car with the aerodynamic package. You will design the structural part of these components. You work in close cooperation with other engineers who are designing aerodynamic components and make sure that the package will be designed as a whole. Furthermore, you will test and validate the aerodynamic package on the whole car.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted for testing the aerodynamic package.

Profile

The lead aerodynamics engineer is a technical person with interest in fluid dynamics.

Preferences:

- Bachelor ME finished or nearly finished
- Affinity with Siemens NX/ANSYS (or MSC Marc/Mentat) is preferred
- Basic knowledge on composites/fluid dynamics is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Diffuser Engineer

Occupation
Part-time engineering

Department
Aerodynamics

Job description
Throughout the next season, you will be responsible for the design of the diffuser, a shaped section of the car underbody which improves the car’s downforce by lowering the pressure under the car. This is done by the phenomena of Diffuser Pumping, Ground interaction and upsweep. An optimization of these three phenomena results in the ideal geometry. Currently, research is already performed towards diffusers, meaning some knowledge on the design and a basic concept is available. It is your responsibility to design the diffuser and to structurally attach it to the monocoque.

You will work together with the Undertray Engineer to provide a cooperative and structurally solid solution for underbody aerodynamics. You will stay in close contact with your technical manager and the rest of your department. Besides you will help in the production of the aerodynamic package.

Profile
The diffuser engineer is a technical person with interest in CAD and simulations.

Preferences:
- 2nd year bachelor ME or up
- Affinity with Siemens NX/ANSYS Fluent is preferred
- Basic knowledge on fluid dynamics is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend at least 15h/week, averaged over the year.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Undertray Engineer

Occupation

Part-time engineering

Department

Aerodynamics

Job description

Throughout the next season you will be responsible for the design of the undertray, a shaped section of the car underbody and side which serves a purpose in both cooling and downforce generation. For cooling, a radiator is placed on the side of the car, providing cooled water flow to the motors and inverter. Besides this, a small duct provides cooled air to the accumulator. For downforce, currently a large side wing is used that provides good ground interaction and upsweep, but different concepts should be researched. It is your responsibility to design the undertray and to structurally attach it to the monocoque.

You will work together with the Diffuser Engineer to provide a cooperative and structurally solid solution for underbody aerodynamics. You will stay in close contact with your technical manager and the rest of your department. Besides you will help in the production of the aerodynamic package.

Profile

The undertray engineer is a technical person with interest in CAD and simulations.

Preferences:

- 2nd year bachelor ME or up
- Affinity with Siemens NX/ANSYS Fluent is preferred
- Basic knowledge on fluid dynamics is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend at least 15h/week, averaged over the year.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Front Wing Engineer

Occupation

Part-time engineering

Department

Aerodynamics

Job description

Throughout the next season you will be responsible for the design of the Front Wing, an aerodynamic component which serves a purpose in generating downforce, providing flow to the undertray and radiators and minimizing the front wheel wake. Currently, the front wing consists of one main element with small flaps behind. It is the target to keep a similar set-up due to its structural rigidity. The choice of flap and main element usage is free however, meaning the component provides a high amount of freedom to the designer. It is your responsibility to design the diffuser and to structurally attach it to the monocoque.

You will stay in close contact with your technical manager and the rest of your department. Besides you will help in the production of the aerodynamic package.

Profile

The Front wing engineer is a technical person with interest in CAD and simulations.

Preferences:

- 2nd year bachelor ME or up
- Affinity with Siemens NX/ANSYS Fluent is preferred
- Basic knowledge on fluid dynamics is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend at least 15h/week, averaged over the year.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Small addition Engineer

Occupation

Part-time engineering

Department

Aerodynamics

Job description

Throughout the next season you will be responsible for the design and testing of small additions. These are small aerodynamic components (like small flaps or vortex generators) with can increase the performance of the aerodynamic package. It is your task to evaluate the influence of these additions on large components like the front wing, undertray, rear wing and diffuser. To evaluate the performance, you will most likely use CFD, but there is a possibility for wind-tunnel testing. Therefore, as the small addition engineer, you will be responsible for the conduction of wind-tunnel tests throughout the year if this opportunity arises.

You will stay in close contact with your technical manager and the rest of your department. Besides you will help in the production of the aerodynamic package.

Profile

The Front wing engineer is a technical person with interest in CAD, simulation and testing.

Preferences:

- 3rd year bachelor ME or up
- Affinity with Siemens NX, ANSYS Fluent and Matlab is preferred
- Basic knowledge on fluid dynamics is preferred
- No 9 to 5 mentality
- Team player

What's asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend at least 15h/week, averaged over the year.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners' facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Structural Aerodynamics Engineer

Occupation
Part-time engineering

Department
Aerodynamics

Job description
Throughout the next season you will be responsible for the structural redesign of the aerodynamic elements. The aerodynamic package of the URE12 uses a very potent and structural decent production method. However, improvements are still possible. The goals of this assignment are to improve the ease of production and decrease the weight while keeping the needed structural integrity.

You will stay in close contact with your technical manager and the rest of your department. Besides you will help in the production of the aerodynamic package.

Profile
The structural aerodynamics engineer is a technical person with interest in CAD and simulations.

Preferences:
- 3rd year bachelor ME or up
- Affinity with Siemens NX is preferred
- Basic knowledge on FEM is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more
Powertrain and Drivetrain

*Educating the engineers of the future*
Vacancy

Lead Accumulator Engineer

Occupation

Full-time engineering

Department

Powertrain and Drivetrain

Job description

Throughout the next season you will be responsible for the design of the accumulator. The accumulator houses the battery cells for the car and besides that the battery management system is completely self-developed. It is your task to design a high-performance accumulator in given the design space. Integration of both high and low voltage components must be done in the accumulator thus requiring a general sense of EMC. To design the accumulator and/or make recommendations for the next year it is required to test these battery cells. Furthermore, it is your task to keep the battery management system working.

You will stay in close contact with your technical manager and the rest of your department. You will be supported by other accumulator engineers, but you will be the lead engineer.

Profile

The lead accumulator engineer is a technical person with interest in thermodynamics and energy storage.

Preferences:

- Bachelor EE finished or nearly finished
- Affinity with Siemens NX/Altium Designer preferred
- Basic knowledge on (power) electronics/battery cells/battery management systems
- No 9 to 5 mentality
- Team player

What's asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Electric Machines Engineer

Occupation

Full-time engineering

Department

Powertrain and Drivetrain

Job description

Throughout the next season you will be responsible for research onto our electric machines. For several years we have had self-developed electric machines. However, these have not been completely tested and validated yet. It is your task to thoroughly test these electric machines and think of possibly alternative testing methods. You will note your observations for any possible design improvements and work on designing a possible revision of these electric machines. An internship or graduation thesis might be possible, contact us for the possibilities.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing these electric machines. You will regularly have contact with or partner, AE group, which helps us design and produce the electric machines.

Profile

The electric machines engineer is a technical person with interest in electromechanics and power electronics.

Preferences:

- Master EE student with specialisation in EPE
- Affinity with Matlab/Simulink
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy
Inverter Engineer (EE)

Occupation
Full-time engineering

Department
Powertrain and Drivetrain

Job description
Throughout the next season you will be responsible for the electrical layout of our self-developed quad inverter which drives our four also self-developed electric machines. You will further validate the inverter and research its electronic stability. It is possible that the inverter needs changes and in that case you will start developing a new inverter. An internship or graduation thesis at Prodrive Technologies (our partner in the inverter development) is one of the possibilities.

You will stay in close contact with your technical manager and the lead test engineer should be consulted for testing.

Profile
The inverter engineer is a technical person with interest in power electronics.

Preferences:

- Master EE with specialisation in EPE
- Affinity with LTSpice and Matlab
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Cooling Engineer

Occupation

Part-time engineering

Department

Powertrain and Drivetrain

Job description

During your research you will create a model predicting the steady state temperatures of the water-cooling system, consisting of 4 motors, 2 radiators, an inverter and a pump. The model can be used to dimension the system and evaluate design decisions and will be made in Matlab or Simulink. Further parts of the research consist of a validation of the model using the system on the existing car, the URE13. Besides this, a sensitivity analysis can be performed, giving the optimal system specifications for a certain desired performance.

Profile

- Bachelor ME finished or nearly finished
- Affinity with Matlab/Simulink is preferred
- Knowledge on testing procedures is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend at least 15h/week, averaged over the year.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Accumulator Engineer

Occupation
Part-time engineering

Department
Powertrain and Drivetrain

Job description
Throughout the next season you will be responsible for the design of the accumulator. The accumulator houses the battery cells for the car and besides that the battery management system is completely self-developed. It is your task to improve the design of a high-performance accumulator in the given design space. Integration of both high and low voltage components must be done in the accumulator thus requiring a general sense of EMC. To design the accumulator and/or make recommendations for the next year it is required to test these battery cells. Furthermore, it is your task to keep the battery management system working.

You will stay in close contact with your technical manager and the rest of your department.

Profile
The accumulator engineer is a technical person with interest in thermodynamics and energy storage.

Preferences:
- Bachelor ME finished or nearly finished
- Affinity with Siemens NX/Altium Designer preferred
- Basic knowledge on (power) electronics/battery cells/battery management systems
- Basic knowledge on thermodynamics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy
Final Drive Engineer

Occupation
Part-time engineering

Department
Drivetrain

Job description
Throughout the next season you will be responsible for the final drive design. The latest URE cars feature 4 individual in-wheel electric machines running at 18,000 rpm. The past two years URE has ran a final drive system consisting of a two-stage planetary gear set. This year the final gear ratio will be adapted. It is your task to redesign the final drive and make adjustments where necessary to improve for example ease of manufacturing or lifetime.

Profile
The final drive engineer is a technical person with interest in mechanical drive systems.

Preferences:
- Bachelor ME finished or nearly finished
- Basic knowledge in gear design preferred
- Affinity with Siemens NX
- Knowledge about manufacturing methods preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Motor Testbench Engineer

Occupation

Part-time engineering

Department

Powertrain and Drivetrain

Job description

Throughout the next season you will be responsible for research onto our electric machines. For several years we have had self-developed electric machines. However these have not been completely tested and validated yet. It is your task to thoroughly test these electric machines and think of possibly alternative testing methods. You will note your observations for any possible design improvements and work on designing a possible revision of these electric machines.

You will stay in close contact with your technical manager and the rest of your department.

Profile

The electric machines engineer is a technical person with interest in electromechanics and power electronics.

Preferences:

- Master EE student with specialisation in EPE
- Affinity with Matlab/Simulink
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vehicle Dynamics

Educating the engineers of the future
Vacancy
Suspension Engineer

Occupation
Part-time engineering

Department
Vehicle Dynamics

Job description
Throughout the next season you will be responsible for the overall suspension design of the URE14. For this task you will work together with another engineer of the team. Together your task is to determine requirements of the suspension system based on: steering requirements, vehicle weight, aerodynamic load, tire stiffness, undamped mass, etc. Then you will design a suspension geometry achieving the best compromise of all these parameters possible. Furthermore, you will deliver requirements for the springs, dampers and the anti-roll bar system. Siemens NX is used for structural design while several vehicle dynamics models are available which you can adapt to suit suspension geometry research.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing of components or with one of URE’s vehicles.

Profile
The suspension engineer is a technical person with interest in both structural design as vehicle dynamics.

Preferences:
- Master student ME or AUT
- Affinity with Siemens NX
- Be familiar with Matlab/Simulink
- Followed vehicle dynamic courses (BSc and/or MSc) or extensive knowledge in vehicle dynamics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Suspension Box Engineer

Occupation

Part-time engineering

Department

Vehicle Dynamics

Job description

Throughout the next season, you will be responsible for the design of the Suspension Box of the URE14. The design of the suspension box will mainly be focused on the design of the spring and damper systems, and the anti-roll system. Both springs and dampers and the ARS to be redesigned to suit the new suspension and monocoque. For the ARS the stiffness and strength of the system might have to be redesigned as well to suit the needs of the suspension setup. As spring and dampers engineer you will have to simulate a variety of situations in order to make sure the vehicle provides the best handling while remaining rule compliant. The system should not only suit the tires but also provide optimum ride height. Another part of this assignment is the attachment of the springs and dampers to the chassis. As ARS engineer you will have to simulate a variety of load cases to make sure the ARS meets these needs while remaining rule compliant.

You will work in close cooperation with our partners KONI and Merwede Springs to provide us with the best possible solution. Furthermore, you will stay in close contact with your technical manager and the rest of your department during your assignment.

Profile

The springs and dampers part requires a technical person with interest in vehicle dynamics. The ARS part requires a technical person with interest in CAD, numerical simulations and vehicle dynamics.

Preferences:

- 3rd year Bachelor ME/AU or up
- Basic vehicle dynamics knowledge (followed the bachelor course 4AUB0)
- Affinity with Matlab/Simulink is preferred
- 15 hours a week availability
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Future Spring & Damper Engineer

**Occupation**

Part-time engineering

**Department**

Vehicle Dynamics

**Job description**

Throughout the next season, you will be responsible for research of future spring and damper technology. You will continue research on frequency selective dampers from previous year to make recommendations for future spring and dampers. You will investigate options with KONI to make psychical changes to the dampers. You will work in close cooperation with our partners KONI and Merwede Springs to find solutions for problems, to optimize the vehicles damping capabilities.

Furthermore, you will stay in close contact with your technical manager and the rest of your department during your assignment.

**Profile**

The springs and dampers engineer is a technical person with interest in vehicle dynamics.

**Preferences:**

- 3rd year Bachelor ME/AU or up
- Basic vehicle dynamics knowledge (followed the bachelor course 4AUB0)
- Affinity with Matlab/Simulink is preferred
- 15 hours a week availability
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

*Educating the engineers of the future*
Vacancy

Anti-roll system engineer

**Occupation**

Part-time engineering

**Department**

Vehicle Dynamics

**Job description**

During the next season you will be responsible for the design of the anti-roll system. The ARS has to be redesigned in order to suit a redesigned monocoque and suspension. Placement and design have to be adapted to a new chassis design, while stiffness and strength of the system might have to be redesigned as well to suit the needs of the suspension setup. As ARS engineer you will have to simulate a variety of load cases to make sure the ARS meets these needs while remaining rule complaint.

During your assignment you will stay in close contact with your technical manager and the rest of your department.

**Profile**

The ARS engineer is a technical person with interest in CAD, numerical simulations and vehicle dynamics.

**Preferences:**

- 3rd year bachelor ME or up
- Affinity with Siemens NX is preferred
- Knowledge on FEM analysis
- Basic knowledge on vehicle dynamics
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Tire Engineer

Occupation
Part-time engineering

Department
Vehicle Dynamics

Job description
Throughout the next season you will be responsible for the tire development of the custom Vredestein racing tires. In 2010 URE started a unique collaboration with Apollo Vredestein R&D which enabled the development of custom racing tires. A lot of effort has been made in optimizing, testing and modelling the tires. Last year an interesting finding regarding the tires has been made. Therefore, you will use the available tire and vehicle models, supplemented with measurements to be done to maximize the performance of the tires.

In close collaboration with our partner you will find the optimum balance of weight, operating temperature, durability, stiffness, grip, etc. Therefore, a model-based design method must be determined. Then the design itself can start after which extensive testing is required. This will include vehicle testing and flat plank testing at the AES-lab. Other testing facilities might become available through one of our partners.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing of the tires.

Profile
The tire development engineer is a technical person with interest vehicle dynamics.

Preferences:
- Bachelor ME or AU finished or nearly finished
- Affinity with Matlab/Simulink and FEM is preferred
- Followed vehicle dynamic courses (BSc and/or MSc) or background in vehicle dynamics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Modelling Engineer – Two Track Model

**Occupation**
Part-time engineering

**Department**
Vehicle Dynamics

**Job description**
The two-track model comes further on in the chain of vehicle simulation models than the point mass
model. Using the two-track model, the same vehicle parameters can be studied as for the point mass
model and the bicycle model. However, more precise and with that also more difficult. This again,
stresses the need for a point mass and bicycle model. To have a better understanding of the
simulations of more complex models. Furthermore, there are a few more parameters that can be
studied. The focus of finding parameters will mainly be for the control department. So besides
working together with your department you will also work together with the control department, to
provide the basic parameters for the control department.

**Profile**
The vehicle dynamics model engineer is a technical person with interest in vehicle dynamics.

**Preferences:**
- Bachelor ME or AU finished or nearly finished
- Affinity with Matlab/Simulink
- Followed vehicle dynamic courses (BSc and/or MSc) or background in vehicle dynamics
- No 9 to 5 mentality
- Team player

**What’s asked/offered**
We are looking for an enthusiastic, and motivated student who is interested in automotive. In turn
we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that
we have gathered over the years. You will get the chance to put theory into practice and make use of
our and our partners’ facilities. Next to that you will be able to expand your network with URE
alumni, and our partners, possibly leading to for example an internship or more.

**Educating the engineers of the future**
Vacancy

Modelling Engineer – Multi Body Model

Occupation

Part-time engineering

Department

Vehicle Dynamics

Job description

Throughout the next season you will be responsible for the development of the Multi Body Model. For the development there are many additions and improvement that can be done. The focus point will be on implementing the control models on the car to simulate them in them in the multi body model. Another important addition will be implementing the new suspension points and the suspension box of the URE14 in the multi body model. The task is will also include the validation of the additions in the model. Besides the two focus points, many additions can be investigated and implemented as well during the year. You will work in close cooperation with the vehicle dynamics department.

Profile

The vehicle dynamics model engineer is a technical person with interest in vehicle dynamics.

Preferences:

- Bachelor ME or AU finished or nearly finished
- Affinity with Matlab/Simulink
- Followed vehicle dynamic courses (BSc and/or MSc) or background in vehicle dynamics
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy
Modelling Engineer – Circuit Simulation Tool

Occupation
Part-time engineering

Department
Vehicle Dynamics

Job description
Throughout the next season you will be responsible for the development of the Circuit Simulation Tool. The main focus point of the task will be implementing a realistic way to simulate the powertrain efficiency of the car in the simulation model. Besides implementing the powertrain efficiency in the circuit simulation tool increasing accuracy of the component efficiency in another focus point. With this improvement the overall accuracy of the simulator can be improved. You will work in close cooperation with the vehicle dynamics department. Besides this, you will stay in contact with the chief testing engineer for the needed vehicle performance tests.

Profile
The vehicle dynamics model engineer is a technical person with interest in vehicle dynamics.

Preferences:
- Bachelor ME or AU finished or nearly finished
- Affinity with Matlab/Simulink
- Followed vehicle dynamic courses (BSc and/or MSc) or background in vehicle dynamics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Skid Pad Optimization Engineer

**Occupation**
Internship

**Department**
Vehicle Dynamics

**Job description**

Throughout next year you will be responsible for optimizing the set-up of the car for the skid pad event. This event tests the steady state cornering performance of the vehicle. Currently, the standard set-up, optimized for transient behavior, is being used for the event. A dedicated steady state set-up could increase the performance of the vehicle. Ideally, the chosen set-up should not impede the acceleration performance of the vehicle since little time for changes is available between different events.

You will work in close cooperation with the vehicle dynamics department. Besides this, you will stay in contact with the chief testing engineer for the needed vehicle performance tests.

**Profile**

The skid pad optimization engineer is a technical person with interest in vehicle dynamics and testing.

**Preferences:**
- Bachelor ME or AU finished or nearly finished
- Experience with Matlab/Simulink is preferred
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Driver Training Engineer

**Occupation**

**Part-time engineering**

**Department**

**Vehicle Dynamics**

**Job description**

*Throughout the year you will be guiding of the drivers to help them developing their driving abilities. You will help the drivers by analyzing the data of their runs. You will compare the data of the different drivers with each other, and also with different theoretical models. Based on this analysis you can provide them with advice to improve their driving skills and get them to driving on the limit of the car.*

**Profile**

*The driver training engineer is a technical person with interest in data analytics, vehicle dynamics and testing.*

**Preferences:**

- Bachelor ME or AU finished or nearly finished
- Experience with Matlab/Motec is preferred
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

*We are looking for an enthusiastic, and motivated student who is interested in automotive. In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more*
Electronics and Software

Educating the engineers of the future
Vacancy
Electronics Architect

Occupation
Full-time engineering

Department
Electronics and Software

Job description
Throughout the next season you will be responsible for the electronic system architecture of the car. This consists of all low voltage components on of the car. You will be responsible to design the wiring harness and the IO nodes. Tasks may include designing other PCB’s as necessary and/or optimizing the electronic system by redesigning PCB’s.

Most of the time you will either make the connector table in Excel, design the wiring harness in Siemens NX, design a PCB in Altium Designer or program components. After designing it is your responsibility to produce the wiring harness.

You will stay in close contact with your technical manager and the rest of your department.

Profile
The electronics architect is a technical person with interest in electronic systems.

Preferences:
- Bachelor EE finished or nearly finished
- Affinity with Excel/Siemens NX/Altium Designer/C is preferred
- Basic knowledge on electronic manufacturing is preferred
- Prior experience with electronics (hobby projects etc.) is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. The electronics architect is able to work in a structured way, combining multiple elements into a whole.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy
Inverter Software Engineer

Occupation
Full-time engineering

Department
Electronics and Software

Job description
Throughout the next season you will be responsible for the embedded software of our self-developed quad inverter which drives our four also self-developed electric machines. This inverter was developed together with our partner Prodrive. We now can completely develop the software ourselves instead of AUTOSAR, which requires an expensive license and thus is undesirable. You will design a real-time, deadlock free scheduler in which three tasks must run:

1. CAN communication task which receives torque set points from the car and sends back feedback including safety checks.
2. Task to control the various ADC’s and PWM peripherals of the motor controller.
3. Task for the motor model which determines the necessary current.

Furthermore, a communication layer is necessary for these tasks, which must not have any missing data. As such a good buffering mechanism is needed. An internship or graduation thesis is one of the possibilities.

Profile
The inverter engineer is a technical person with interest in power electronics.

Preferences:
- Master CS/ES or bachelor EE/SS with extensive programming experience
- Basic knowledge on power electronics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Software Engineer

Occupation

Full-time engineering

Department

Electronics and Software

Job description

Throughout the next season you will be responsible for the designing a data representation toolkit. This consists of two parts:

- Driver interface with desktop GUI to adjust settings
- Digital real-time dashboard

The driver interface is self-developed, and you will work together with electronics engineers to further design a complete software environment around it. The digital real-time dashboard is a running project with our partner McCoy and can display live sensor data and more. Your task is to further improve this system and if possible incorporate one with another.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing the Live Dashboard.

Profile

The software engineer is a technical person with interest in embedded systems.

Preferences:

- Bachelor SS finished or nearly finished
- Affinity with C is preferred
- Basic knowledge on electronics is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy
Senior Electronics Engineer

Occupation
Part-time engineering

Department
Electronics and Software

Job description
Throughout the next season you will be responsible for several smaller tasks, including some managing tasks. Examples of these managing tasks are being chairman in the weekly department meeting, reviewing the technical documents i.e. the Specification Document and help with the planning of an assignment. The focus is on supporting the department manager using your URE experience you have gained in previous years.

You will stay in close contact with your technical manager and the rest of your department.

Profile
The senior electronics engineer is a technical person with interest in electronics and managing.

Preferences:
- Bachelor EE finished or nearly finished
- You have at least 1 year of experience at URE
- Affinity with Excel/Siemens NX/Altium Designer/C
- Basic knowledge on electronic manufacturing
- Prior experience with electronics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Wiring Harness Engineer

Occupation
Part-time engineering

Department
Electronics and Software

Job description
On the inside of URE’s electric car, there are a lot of sensors which inform the ECU about the state of the car. All these sensors need to be connected to the central communication line of the car, in order to send their information to the ECU. To achieve this, various wiring harnesses need to be present in the car.

Since next year’s car is not going to be a lot different from last year’s car, it means the wiring harness will also not change a lot. Nevertheless, the wiring harness still needs to be assembled.

You will be responsible to design the wiring harness. Most of the time you will either make the connector table in Excel or design the wiring harness in Siemens NX. After designing it is your responsibility to produce the wiring harness.

Profile
The wiring harness engineer is a technical person with interest in electronics.

Preferences:
- 2nd year bachelor EE/AU or up
- Affinity with Excel/Siemens NX
- Basic knowledge on electronics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

CAN Sniffer Engineer

Occupation

Part-time engineering

Department

Electronics and Software

Job description

There are a lot of sensors inside our racecars. These sensors gather all sorts of data about the state of the car. All these sensors are connected to two individual communication networks. These are called Controller Area Network (CAN) busses and are often used in the automotive industry. To listen in on these busses, requires special expensive hardware, so called CAN-sniffers. In the past, less expensive CAN-sniffers were created by URE. These CAN-sniffers connect to the computer through a USB-port. They can be monitored by a COM-port.

You will be responsible to improve the current system. You will spend most of your time on designing and programming.

Profile

The CAN sniffer engineer is a technical person with interest in electronics.

Preferences:

• 2nd year bachelor EE/SS or up
• Affinity with C
• Basic knowledge on electronics
• No 9 to 5 mentality
• Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Live Telemetry Engineer

**Occupation**

Part-time engineering

**Department**

Electronics and Software

**Job description**

*Throughout the next season you will be responsible for the design of the live telemetry system. The goal is to design a system that can share live data on our servers. You will spend most of your time designing and programming of the system.*

You will stay in close contact with your technical manager and the rest of your department

**Profile**

The live telemetry engineer is a technical person with interest in software and electronics.

**Preferences:**

- 2nd year bachelor SS/EE or up
- Affinity with C/C++
- Basic knowledge on electronics
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Satellite Boards Engineer

**Occupation**

Part-time engineering

**Department**

Electronics and Software

**Job description**

Satellite boards are used in our cars. However, the design is getting outdated. A part of the satellite is not even used anymore. Last year CAN satellite was added in the battery to monitor the temperatures. This year we want to combine the satellites to one complete solution with CAN satellite and the rest of the satellite together instead of a different board.

Throughout the next season you will be responsible for the design of the satellite board. This will include designing the PCB in Altium Designer.

You will stay in close contact with your technical manager and the rest of your department.

**Profile**

The satellite boards engineer is a technical person with interest in electronics.

**Preferences:**

- 3rd year bachelor EE or up
- Affinity with Matlab/LTSpice/Altium Designer
- Knowledge on power electronics
- Knowledge on testing procedures
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Status Check Engineer

**Occupation**

Part-time engineering

**Department**

Electronics and Software

**Job description**

There are a lot of sensors inside our racecars. These sensors gather all sorts of data about the state of the car. All these sensors are connected to two individual communication networks. These are called Controller Area Network (CAN) busses and are often used in the automotive industry.

With this well working communication network it is possible to check the status of the car. Throughout the season you will be responsible for writing a program to automatically check whether everything in the car is functioning correctly. This will be used to check the vehicle before a test day.

You will spend most of your time on programming.

**Profile**

The status check engineer is a technical person with interest in software.

**Preferences:**

- 2nd year bachelor SS or up
- Affinity with C/C++
- Basic knowledge on electronics
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Low Voltage BMS Engineer

Occupation
Part-time engineering

Department
Electronics and Software

Job description
Throughout the next season you will be responsible for the design of the low voltage battery management system. You will design a PCB in Altium Designer and after the production you will program the device.

You will stay in close contact with your technical manager and the rest of your department

Profile
The low voltage BMS engineer is a technical person with interest in electronics.

Preferences:
- 3rd year bachelor EE or up
- Affinity with LTSpice/Altium Designer
- Knowledge on electronics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

IO-nodes Engineer

**Occupation**

Part-time engineering

**Department**

Electronics and Software

**Job description**

Throughout the next season you will be responsible for the design of IO-nodes.

You will stay in close contact with your technical manager and the rest of your department

**Profile**

The IO-nodes engineer is a technical person with interest in electronics.

**Preferences:**

- 3rd year bachelor EE or up
- Affinity with LTSpice/Altium Designer
- Knowledge on electronics
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

*Educating the engineers of the future*
Vacancy

Power Electronic Engineer

Occupation

Part-time engineering

Department

Electronics and Software

Job description

Throughout the next season you will be responsible for the DC/DC converter. The DC/DC converter is used to convert the accumulator's high voltage (400V) to low voltage (24V) for the car's low voltage circuit. This has the advantage that it is lighter and if the converter is good you will have a more stable low voltage source rather than the use of a separate battery. In the past a design was made for a BEP which has resulted in a 300W Dual Active Bridge DC/DC converter. This needs to be finished testing and an extra safety circuit has to be implemented, this will be your task. You will evaluate the DC/DC converter's performance and propose design improvements. Possibly a new design can be made, perhaps even through a BEP.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing.

Profile

The power electronic engineer is a technical person with interest in power electronics.

Preferences:

- 3rd year bachelor EE or up
- Affinity with Matlab/LTSpice/Altium Designer is preferred
- Knowledge on power electronics
- Knowledge on testing procedures is preferred
- No 9 to 5 mentality
- Team player

What's asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Driver Interface Engineer

Occupation
Part-time engineering

Department
Electronics and Software

Job description
Throughout the next season you will be responsible for the design of the steering wheel and integrated driver interface. In the past a design has been made with an integrated display in the steering wheel including peripherals. This functions well but the packaging (including PCB) can be made more compact and practical.

Your task will be to redesign the PCB whilst keeping it backwards compatible. This means that you will redesign the board and not the schematics unless necessary, thus keeping it backwards compatible. Simultaneously you will redesign the steering wheel incorporating this PCB. Once done you will program the steering wheel including a GUI together with the Software Engineer.

Profile
The driver interface engineer is a technical person with interest in electronics.

Preferences:
- 2nd year bachelor EE/AU or up
- Affinity with Siemens NX/Altium Designer/C is preferred
- Basic knowledge on electronics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Control

Educating the engineers of the future
Vacancy
Control Architect

Occupation
Full-time engineering

Department
Control

Job description
Throughout the next season you will be responsible for the control architecture of the car. The car uses a dSPACE MicroAutoBox II as an ECU and is Simulink programmable. You will be responsible for the vehicle model's architecture and thus the control architecture. You will not be developing every part of this vehicle model (e.g. torque vectoring) but you will implement these parts in such a way that they do not conflict with each other. It is your task to document any changes made and keep a library of vehicle models up to date. You are responsible for tuning the controllers when the car is finished, thus requiring a lot of on track hours near the end of the year.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for tuning and testing vehicle models.

Profile
The control architect is a technical person with interest in dynamics and control.

Preferences:
- Bachelor ME/AU finished or nearly finished
- Affinity with Simulink
- Basic knowledge on vehicle dynamics is preferred
- Prior experience in testing and tuning controllers is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. The control architect will be required to be on track often when the car is finished, tasks consist of debugging but mostly to tune controllers. Thus it is required that especially near the end of the year (starting Q4) you will have a lot of available time including the weekends.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy
Inverter Control Engineer

Occupation
Full-time engineering

Department
Control

Job description
Throughout the next season you will be responsible for the control model of our inverter. The inverter is self-developed in close cooperation with our partner Prodrive. We can improve the control model currently running on the inverter. This includes the controllers but also the fault modes. An internship is one of the possibilities.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for tuning and testing the inverter.

Profile
The inverter control engineer is a technical person with interest in control.

Preferences:
- Master SC/AT/EE
- Affinity with Matlab/Simulink
- Knowledge on control
- Knowledge on electric machines and power electronics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy
Control Engineer

Occupation
Part-time engineering

Department
Control

Job description
Throughout the next season you will be responsible for the design and tuning of the control system present on the car. The control architecture enables the car to reach the maximum possible acceleration in both lateral and longitudinal direction. Some examples of the control components present on the car are:

- Traction Control
- Brake Control
- Torque Vectoring

You will revise the existing control software’s performance and find ways to improve it. Part of this is tuning but also possibly redesigning controllers.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead engineer must be consulted frequently for testing.

Profile
The control engineer is a technical person with interest in control systems and dynamics.

Preferences:
- 3rd year bachelor ME/AU/EE or up
- Affinity with Matlab/Simulink
- Knowledge on control and basic vehicle dynamics
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Autonomous Systems

Educating the engineers of the future
Vacancy

Velocity Control Engineer

**Occupation**
Part-time engineering

**Department**
Driverless

**Job description**

University Racing Eindhoven is developing the first autonomous race car of the Benelux whereby a showcase event will be organized to demonstrate this to the world. Formula Student Driverless (FSD) is a new competition in which race cars are to be driven autonomously. URE wants to compete in this competition during the 2019 season after the showcase.

Throughout the season you will be designing the velocity controller according to rules and specifications. You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing.

**Profile**

The actuation engineer is a technical person with interest in mechatronics.

**Preferences:**

- 3rd year bachelor ME/AU or up
- Affinity for Siemens NX is preferred
- Basic knowledge on electronics is preferred
- No 9 to 5 mentality
- Team player

**What's asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners' facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

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**Educating the engineers of the future**
Vacancy

Sensor Calibration Engineer

**Occupation**
Part-time engineering

**Department**
Driverless

**Job description**

University Racing Eindhoven is developing the first autonomous race car of the Benelux whereby a showcase event will be organized to demonstrate this to the world. Formula Student Driverless (FSD) is a new competition in which race cars are to be driven autonomously. URE wants to compete in this competition during the 2019 season after the showcase.

Throughout the season you will be responsible for the calibration of the sensors on the car. This is a critical component of the driverless vehicle because the car cannot follow the track properly if the sensors are not calibrated perfectly. You will perform research on all sensors and create a script on how to calibrate each one to ensure the car can drive around the track without any issues.

**Profile**

The actuation engineer is a technical person with interest in mechatronics.

**Preferences:**

- 3rd year bachelor ME/AU or up
- Affinity for Siemens NX is preferred
- Basic knowledge on electronics is preferred
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Steering Control Engineer

Occupation
Part-time engineering

Department
Driverless

Job description

University Racing Eindhoven is developing the first autonomous race car of the Benelux whereby a showcase event will be organized to demonstrate this to the world. Formula Student Driverless (FSD) is a new competition in which race cars are to be driven autonomously. URE wants to compete in this competition during the 2019 season after the showcase.

Throughout the season you will be designing the steering actuator and controller according to rules and specifications. You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing.

Profile

The actuation engineer is a technical person with interest in mechatronics.

Preferences:

- 3rd year bachelor ME/AU or up
- Affinity for Siemens NX is preferred
- Basic knowledge on electronics is preferred
- No 9 to 5 mentality
- Team player

What's asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Vacancy

Packaging Engineer

Occupation

Part-time engineering

Department

Driverless

Job description

University Racing Eindhoven is developing the first autonomous race car of the Benelux whereby a showcase event will be organized to demonstrate this to the world. Formula Student Driverless (FSD) is a new competition in which race cars are to be driven autonomously. URE wants to compete in this competition during the 2019 season after the showcase.

The racing car needs extra hardware to enable autonomous driving (sensors, actuators, ECU). You will be in charge of finding the best location for every piece of hardware. Next to that, you will design the mountings as well. You will stay in close contact with your technical manager and the rest of your department.

Profile

The packaging engineer is a technical person with interest in structural design.

Preferences:

- 3rd year bachelor ME/AU or up
- Affinity for Siemens NX is preferred
- Basic knowledge on electronics is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Software Engineer

*Occupation*
Part-time engineering

*Department*
Driverless

*Job description*
University Racing Eindhoven is developing the first autonomous race car of the Benelux whereby a showcase event will be organized to demonstrate this to the world. Formula Student Driverless (FSD) is a new competition in which race cars are to be driven autonomously. URE wants to compete in this competition during the 2019 season after the showcase.

Throughout the next season you will be responsible for the software implementation of track recognition and controls algorithm in the NVIDIA DRIVE PX2. Furthermore, you will be responsible for the communication (CAN/CAN Open) between the drivers of the actuators and the NVIDIA DRIVE PX2 in combination with the DSpace microautobox.

You will work together with your technical manager and a multidisciplinary team to realize this. Next to that the lead test engineer must be consulted frequently for testing.

*Profile*
The driverless software engineer is a technical person with interest in video processing and analysis.

*Preferences:*
- Bachelor EE/Software Science finished or nearly finished, or master student
- Affinity for C/C++ and/or other relevant skills
- No 9 to 5 mentality
- Team player

*What’s asked/offered*
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Track Detection Engineer

Occupation
Master Thesis

Department
Driverless

Job description
University Racing Eindhoven is developing the first autonomous race car of the Benelux whereby a showcase event will be organized to demonstrate this to the world. Formula Student Driverless (FSD) is a new competition in which race cars are to be driven autonomously. URE wants to compete in this competition during the 2019 season after the showcase.

Throughout the season you will be responsible for combining the data from different sensors (LiDAR, Camera) and provide suitable output to the relevant track recognition algorithm. You will implement the algorithms on the car and select suitable components for this system together with your technical manager.

You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing.

Profile
The track detection engineer is a technical person with interest in video processing and analysis.

Preferences:
- Bachelor EE finished or nearly finished, or master EE with VCA specialization
- Affinity for MATLAB/OpenCV and/or other relevant skills
- Knowledge on video processing and analysis
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Motion Planning Engineer

Occupation
Part-time engineering

Department
Driverless

Job description

University Racing Eindhoven is developing the first autonomous race car of the Benelux whereby a showcase event will be organized to demonstrate this to the world. Formula Student Driverless (FSD) is a new competition in which race cars are to be driven autonomously. URE wants to compete in this competition during the 2019 season after the showcase.

Throughout the season you will work on motion planning algorithms which includes computing an optimal racing trajectory, generating a path and velocity reference, and working on the Top-level controls. You will stay in close contact with your technical manager and the rest of your department. Next to that the lead test engineer must be consulted frequently for testing.

Profile

The motion planning engineer is a technical person with interest in vehicle dynamics and control systems.

Preferences:

- Bachelor ME/AU finished or nearly finished, or ME/AT/SC master with specialization in control
- Affinity for MATLAB/Simulink
- Knowledge on vehicle dynamics and control systems
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Business Plan

Educating the engineers of the future
Vacancy

Business Executive

Occupation

Part-time engineering

Department

Business Plan

Job description

Throughout the next season, you will be responsible for the Business Plan, which is one of the static events of the Formula Student competition. The objective of the Business Plan is to evaluate the team’s ability to develop and deliver a comprehensive business model that show their product – a prototype race car – could become a rewarding business opportunity. During the races you will present the business model to a panel of judges, which should be treated as potential investors or partners for the business model. The business plan must relate to the specific prototype race car entered in the competition. Other than this requirement you have a lot of space for creativity. It is the quality and content of the business model and the presentation which is being judged, not the technical qualities of the car.

Profile

The business plan engineer is a creative person with interest for business opportunities.

Preferences:

- 2nd year bachelor IE or up
- Basic knowledge on different aspects of business models.
- Creative look at business opportunities
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Cost

Educating the engineers of the future
Vacancy

Cost Engineer

Occupation

Part-time engineering

Department

Cost

Job description

Throughout the next season, you will be responsible for the cost report. The cost report is part of the Cost Understanding and Manufacturing event which is one of the static events of the competition. The objective of the Cost Understanding and Manufacturing event is to evaluate the team’s understanding of the manufacturing processes and costs associated with the build of a prototype race car. The cost report consists of a Bill of Materials (BOM) which contains all parts of the car. Afterwards prices for these parts needs to be calculated and added, to create a Costed Bill of Materials (CBOM).

During the competition you will present the cost report to judges, where they will judge the cost report on completeness and realism. Next to this, there is a discussion where the judges will ask you questions about your understanding of the cost and manufacturing processes used. This includes trade off decisions between content and cost, make or buy decisions and understanding the differences between prototype and mass production.

Profile

The cost engineer is a person with interest in finance and manufacturing processes.

Preferences:

- 2nd year bachelor IE or up
- Knowledge on basic finance methods
- Basic knowledge on manufacturing processes
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who is interested in automotive. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.

Educating the engineers of the future
Operations

Educating the engineers of the future
Vacancy

Event Organizer

**Occupation**

Part-time operations

**Department**

Operations

**Job description**

Throughout the next season, you will be responsible for the organization of all events. As event responsible you need to be creative and able to work it out in detail in a well-structured way. Different events include the design presentation, car presentation and races across all Europe. Next to that teambuilding activities are very important to enhance the cooperation between different team members and therefore needs to be well-organized. You are responsible for all the above events including any other relevant events such as the kart-challenge.

You will stay in close contact with the CEO and the rest of your department.

**Profile**

The event responsible is a creative person.

**Preferences:**

- 2nd year bachelor or up
- Affinity with Adobe Photoshop is preferred
- No 9 to 5 mentality
- Team player

**What's asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in building on the team spirit within our team, by using his/her creativity. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners' facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy
Marketing Executive

Occupation
Part-time operations

Department
Operations

Job description
Throughout the next season, you will be responsible for the social media channels and website content of University Racing Eindhoven. Each week, with more than 30,000 people reached, social media is one of the most important platforms to gain exposure. Therefore, you are responsible for all the daily/weekly content on our social media channels consisting of Facebook, Twitter, Instagram, YouTube and LinkedIn. Creating a plan for updates is part of this. Furthermore, you are responsible for updating the publications and actual content on our website.

You will stay in close contact with the CEO and the rest of your department.

Profile
The social media responsible is a creative person with interest in photography.

Preferences:
- 2nd year bachelor or up
- Affinity with Adobe Photoshop
- Affinity with Adobe Illustrator/InDesign is preferred
- Photography experience is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in automotive improving our team’s PR, by using his/her creativity and social skills. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Design Executive

**Occupation**

Part-time operations

**Department**

Operations

**Job description**

Throughout the next season, you will be responsible for designing all the goods of the team, possibly including the livery of the car. As a multidisciplinary team active over all Europe, appearance is of great importance. You must look good while going fast. Therefore, we are looking for someone who can bring consistency in the team’s merchandise and promotion. This may include clothing, banners and even the livery of the car. New options are always possible, as creativity is key.

You will stay in close contact with the CEO and the rest of your department.

**Profile**

The design executive is a creative person with interest in automotive.

**Preferences:**

- 2nd year Bachelor or up
- Adobe Illustrator, InDesign and Photoshop experience
- No 9 to 5 mentality
- Team player

**What’s asked/offered**

We are looking for an enthusiastic, and motivated student who is interested in making the most of our teams PR, by using his/her creativity. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Vacancy

Video Editor

Occupation

Part-time operations

Department

Operations

Job description

Throughout the next season, you will be responsible for all the published videos. This includes promotional videos, after movies, progress videos and more. Every video needs to stand out and be distinguishable from the rest of the competition. Therefore, you are responsible for a detailed script, great and steady footage and an original edit.

You will stay in close contact with the CEO and the rest of your department.

Profile

The event responsible is a creative person with interest in videography.

Preferences:

- 2nd year bachelor or up
- Videography experience
- Affinity with video editing such as Adobe Premiere Pro and After Effects
- Affinity with music editing is preferred
- No 9 to 5 mentality
- Team player

What’s asked/offered

We are looking for an enthusiastic, and motivated student who has great interest in making the most of PR, by using his/her creativity and media skills. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.
Acquisition

Educating the engineers of the future
Vacancy
Acquisition Executive

Occupation
Part-time operations

Department
Acquisition

Job description
Throughout the next season, you will be responsible for the acquisition of new partners. Over the years, URE has built up a large network of partners, consisting of over 80 companies. This network can always be expanded, as URE is always looking to move forward. Therefore, you will be responsible for expanding and maintaining URE’s network, in turn expanding your own.

You will stay in close contact with the CEO and the rest of your department.

Profile
The acquisition executive is a person with interest in finance and expanding his/her network.

Preferences:
- 2nd year bachelor IE or up
- Basic knowledge on acquisition techniques/processes
- No 9 to 5 mentality
- Team player

What’s asked/offered
We are looking for an enthusiastic, and motivated student who is interested in expanding and maintaining our team’s extensive partner network. It is expected that you will spend on average 15h/week at least.

In turn we offer you a highly motivated multidisciplinary team with a lot of knowledge and experience that we have gathered over the years. You will get the chance to put theory into practice and make use of our and our partners’ facilities. Next to that you will be able to expand your network with URE alumni, and our partners, possibly leading to for example an internship or more.