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FORUM V3.0**

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**End of Studies
Project Catalog**

Department

Value Chain Management Tunisia

Topic Intelligent tool Development for production planning

Description : Development of an intelligent tool for production planning (coordination between segments).



Profile

Electrical Engineer



Required skills

Data analysis



Number of interns

1 Intern



Task

Define the tool's objective



Tasks



Task

Prepare and analyze a database



Task

Develop a decision support tool



Task

Develop a method for analyzing customer demand using AI



Task

Studying performance and visualizing data



Scan to apply

Department

Value Chain Management Tunisia

Topic Warehouse modeling and emulation

Description :

The design of a decision support model to optimize storage, floor space, and the number of operations in a warehouse.



Profile

Industrial
Engineering
Logistics
IT Development



Required skills

Modeling
"Arena" Simulation



Number of interns

3 Interns



Task

1 Identify the key parameters



Tasks



Task

2 Identify the Warehouse's capabilities



Task

4 Test the different results



Task

3 Developing a simulation environment



Task

5 Summarize the KPIs



Scan to apply

Department

Value Chain Management Tunisia

Topic



Data analysis for inventory management

Description :

Real-time stock level identification: establish a stock status recognition system using a camera.



Profile

Industrial Engineering
Electronic Engineering
IT Development



Required skills

Image processing
Data analysis



Number of interns

1 Intern



Tasks



Task

Define the database



Task

Prepare the data



Task

Classify



Task

Test and simulate



Scan to apply

Department

Value Chain Management Tunisia

Topic Warehouse Management System (VCM) Dashboard

Description : Visualize our Warehouse KPIs via a dashboard.



Profile

Industrial Engineering
Logistics
IT Development



Required skills

Supply Chain Management (SCM)
Performance Indicators
IT Development



Number of interns

2 Interns



Task

1 Define warehouse indicators



Tasks



Task

2 Develop a database



Task

4 Simulate results



Task

3 Develop a dashboard



Task

5 Process KPIs



Scan to apply

Department

Value Chain Management Tunisia

Topic

Automatic PDP

Description : Automatic daily schedule calculation file



Profile

Industrial/
Mechanical
Engineering



Required skills

VBA
C++



Number of interns

1 Intern



Tasks



Task

Automatic requirements extraction



Task

Link to FPDP S-1



Task

Elimination of wiring with MMPs
(Manual Process Modules)



Task

Split scheduling
per day
according to
MPS (Manual
Process
Schedule)



Scan to apply

Department

Value Chain Management Tunisia

Topic New Project Dashboard

Description : New Project Status



Profile

Industrial
Mechanical
Computer
Engineer



Required skills

VBA
C++



Number of interns

1 Intern



Tasks



Task

Data collection for new projects



Task

Choosing the dashboard design



Task

Selecting indicators to display



Scan to apply

Department

Value Chain Management Tunisia

Topic

Logistic Network Application

Description :

Shared application between VCM employees and carriers for real-time tracking of trailer statuses



Profile

Industrial
Mechanical
Computer
Engineer



Required skills

HTML
Web development
VBA
C++



Number of interns

1 Intern



Tasks



Task

Current state of trailer tracking management



Task

Collecting Data



Task

Creation of a tracking application



Scan to apply

Department

Value Chain Management Tunisia

Topic 2 Bin System Wire

Description : Implementation of the 2 Bin system in 3 LTN3 plants



Profile

Industrial
Mechanical
Engineering



Required skills

Excel/VBA/ C++



Number of interns

3 Interns



Tasks

1

Task

Preparation of a loading plan incorporating actual coefficients

3

Task

Loading and monitoring dashboard for the silkworm tankers

2

Task

Implementation of the 2 Bin system in production



Scan to apply

Department

Value Chain Management Tunisia

Topic



Optimization of PAGODA flows for the Assembly, Cutting, and VKF processes

Description :

Optimization of PAGODA thread flows to VKF /
Optimization of PAGODA spaces / Layout review /
Location review / Lot-size quantity review



Profile

Industrial Engineering
Data Science
Information Systems
Management



Required skills

Data Analysis
Artificial Intelligence
Industry Knowledge



Number of interns

3 Interns



Tasks



Task

Analyze the current situation and observe



Task

Define the problem



Task

Generate and implement solutions



Task

Monitor and evaluate results



Scan to apply

Department

Quality Management Tunisia

Topic  Creation of a software application for QM indicators

Description : Migration from Excel to the application with automatic report and guideline generation.



Profile

IT Development
AI Specialist



Required skills

Database
Power BI
Web Development



Number of interns

3 Interns



Tasks



Task
Study the existing system



Task
Create a dashboard displaying the various charts and reports



Task
Create a database



Task
Share the reports through a web interface



Scan to apply

Department

Quality Management Tunisia

Topic



Interface–Project List–PPAP

Description :

Implement a web interface linked to the Leopards : customer requirements / the technical and functional constraints of each component / VDA and AIAG standards.



Profile

Computer Engineer



Required skills

Web Development



Number of interns

1 Intern



Tasks



Task

1 Conduct a detailed requirements analysis



Task

2 Design the conceptual and normalized database model



Task

3 Develop and implement the web interface



Scan to apply

Department

Health Safety Environment Energy

Topic  Development of a temperature and humidity monitoring solution

Description : monitoring temperature and humidity indicators within the warehouse to ensure timely reaction



Profile

Energy Engineer
Electrical
Engineer



Required skills

IoT
Embedded Systems
Air Conditioning



Number of interns

2 Interns



Task

1 Define the specifications



Tasks



Task

2 analyze the requirements and Conduct a gap analysis



Task

4 Develop and program



Task

3 Design the solution



Task

5 Test and validate



Scan to apply

Department

Quality Management Tunisia

Topic



Development of a Web Application for LLC Management

Description :

Develop a web application to eliminate the risks associated with paper-based LLC document management



Profile

Computer Engineer



Required skills

Web Development
Angular
Spring Boot



Number of interns

1 Intern



Task
1 Define the specifications and analyze the requirements



Tasks



Task
2 Study the concept according to the standard



Task
4 Develop the web application



Task
3 Implement and create a database



Task
5 Test and validate




Scan to apply

Department

Quality Management Tunisia

Topic  Development of a Web Application for PAQ Management

Description  Develop a web application to eliminate the risks associated with paper-based document management



Profile

Computer Engineer



Required skills

Web Development
Angular
Spring Boot



Number of interns

1 Intern



Task

1 Define the specifications and analyze the requirements



Tasks



Task

2 Study the concept according to Leoni standard



Task

4 Develop the web application



Task

3 Implement and create a database



Task

5 Test and validate



Scan to apply

Department

Quality Management Tunisia

Topic



Development of a Quality KPI Dashboard

Description :

Creation of an interactive dashboard that allows real-time monitoring, measurement, and analysis of quality indicators.



Profile

Management Information Systems
SID-DS



Required skills

Knowledge of SAP
Power BI



Number of interns

2 Interns



Tasks



Task

Collect the data



Task

Select the tools



Task

Design and develop the dashboard



Task

Test and validate



Scan to apply

Department

Quality Management Tunisia

Topic Automation of the Shortening Workstation

Description : Automation of the workstation for the shortening process



Profile

Electronics
Electrotechnics and
Automation



Required skills

Basics of Automation
Programming
Mechanical Design



Number of interns

3 Interns



Task

Develop the specifications



Tasks



Task

Design the mechanical supports



Task

Validate and build the prototype



Task

Select hardware and software solutions



Task

Study the ROI and produce a prototype



Scan to apply

Department

Financial Management Tunisia

Topic



Analyzing the Effectiveness of Internal Audit Processes

Description :

Study financial performance indicators, internal audit criteria, using the LEONI SAP



Profile

Finance
Information
Technology
Accounting



Required skills

Proficiency audit
concepts



Number of interns

6 Interns



Task

Acquire knowledge of ERP and its procedures



Tasks



Task

Collect data according to specific needs



Task

Select the model to be applied



Task

Identify the variables



Task

Interpret the outputs



Scan to apply

Department

Financial Management Tunisia

Topic



Use of New Methods and Tools in Financial Planning and Analysis

Description :

Perform a forecasted financial analysis and select a business model using software programming (Blockchain, Python, Power BI)



Profile

Financial Engineering



Required skills

Artificial Intelligence



Number of interns

2 Interns



Tasks



Task

Acquire general knowledge



Task

Collect data based on specific needs



Task

Apply and interpret the results



Scan to apply

Department

Financial Management Tunisia

Topic

Green Finance and Sustainability

Use measurement tools, carbon footprint, and ESG indicators to assess the environmental and social impact of a company.



Profile

Finance
Management
MBA



Required skills

Knowledge in Finance
Knowledge in Management



Number of interns

2 Interns



Tasks



Task

Acquire general knowledge



Task

Apply and interpret the results



Task

Collect data according to specific needs



Scan to apply

Department

Financial Management Tunisia

Topic

Foreign Exchange Risk

Description :

Identify foreign exchange risk management tools and select the most effective method for optimal risk management.



Profile

Finance
Banking and Insurance



Required skills

Knowledge of foreign exchange techniques
Knowledge of international financial techniques



Number of interns

3 Interns



Task

1 Understand foreign exchange risk



Tasks



Task

2 Study foreign exchange risk management strategies



Task

4 Conduct a comparative study between forward contracts and spot purchases



Task

3 Determine the risk management tools



Task

5 Interpret the results and propose best practices



Scan to apply

Department

Financial Management Tunisia



Behavioral aspects of management control

Topic

Description :

Mastering behavioral finance and analyzing the relationship between behavioral aspects and management control



Profile

Financial engineering
MBA



Required skills

Proficiency in management control
Knowledge of Psychology



Number of interns

2 Interns



Tasks



Task
Analyze the existing situation / conduct interviews



Task
Interpreting the results



Task
Prepare a binary classification model




Task
Making decisions and creating an action plan



Scan to apply

Department

Financial Management Tunisia

Topic  **Impact of digital transformation on the central management system**

Description : Conduct a comparative study between the current state before and after digitalization, optimize the process and see the possibility of integrating artificial intelligence



Profile

Management
MBA



Required skills

Knowledge in digital management
Engineering Knowledge



Number of interns

1 Intern



Tasks



Task

Analyze the existing situation



Task

Create an action plan



Task

Conduct a case study:
SWOT analysis



Task

Interpret the results



Scan to apply

Department

Financial Management Tunisia

Topic



**Financial planning and analysis:
a statistical study**

Description :

Analysis of the history of financial indicators by interpreting the correlation and covariance coefficients between these indicators



Profile

Finance
Econometrics



Required skills

Financial engineering
Master of econometrics



Number of interns

3 Interns



Tasks



Task
Analyze and observe the existing situation



Task
Interpretation of the results



Task
Manipulating financial statements and calculating indicators



Task
Study and compare the selected outputs and the sector indicators



Scan to apply

Department

Financial Management Tunisia

Topic Tax optimization

Description : Study existing tax regulations and the impact of changes in tax rates while identifying tax advantages



Profile

Accounting
Control and Auditing
Taxation



Required skills

Expertise in taxation and law
finance
Knowledge of the econometric aspect



Number of interns

2 Interns



Task

Analyze and observe the existing situation



Tasks



Task

Study and compare country analyses



Task

Apply the econometric model



Task

Interpret the results



Task

To study and describe tax exemptions based on investments



Scan to apply

Department

Financial Management Tunisia

Topic



Optimizing costs and performance through artificial intelligence (AI)

Description :

Research on the use of AI to improve financial processes and cost management within the company



Profile

Finance
Financial Engineering



Required skills

Financial engineering
Master of technology and AI tools



Number of interns

1 Intern



Tasks



Task

Observe



Task

Analyze the feasibility



Task

Interpret the results and propose solutions



Task

Study the impact on the company's performance



Scan to app ly

Department

Financial Management Tunisia

Topic  Sustainable financial strategy faced to economic challenges

Description : Analysis of financial practices that enable sustainable growth in an uncertain economic environment



Profile
Finance



Required skills
Financial Engineering



Number of interns
2 Interns



Tasks



Task
Analyze the economic environment



Task
Interpret the results



Task
Develop an action plan for a sustainable financial strategy



Scan to apply

Department

Financial Management Tunisia

Topic



Development of a decision-making system for a specific department

Description

Aims to provide an overview of key performance indicators (KPIs) to assist strategic and operational decision-making



Profile

Information systems
Management



Required skills

SAP Knowledge
Power BI



Number of interns

2 Interns



Tasks



Task

1 Collecting and processing data



Task

3 Decision-making



Task

2 Visualize data and create reports



Scan to apply

Department

Production & Infrastructure Management

Topic



Implementing communication between a machine and a MES system

Description

Design and develop a solution enabling communication between a machine without a PLC and a MES system



Profile

Electronics Engineer



Required skills

Development
Electronics
Industrial integration



Number of interns

1 Intern



Task

Study the feasibility



Tasks



Task

Design the functional interface card



Task

Integrate with the MES system



Task

Develop a communication software



Task

Test and validate



Scan to apply

Department

Production & Infrastructure

Topic

Creating a dynamic database for capacity calculation and indicator monitoring

Description :

The intern is asked to create a dynamic database using Access/Power BI tools



Profile

Computer engineer



Required skills

Access
Power BI
Algorithmic mindset



Number of interns

1 Intern



Tasks

1

Task
Analyze the current state

2

Task
Create a database

3

Task
Indicator monitoring



Scan to apply

Department

Production & Infrastructure Management

Topic



Muda Hunting site within the ASUVE project

Description

Identify waste, the root causes of problems, and implement actions to eliminate these causes



Profile

Computer Engineer
Mechatronics
Production Engineering



Required skills

Lean manufacturing
Programming Languages



Number of interns

2 Interns



Tasks



Task

Study and diagnose the current production process



Task

Define the value chain mapping



Task

Implement actions to eliminate root causes of problems



Scan to apply

Department

Production & Infrastructure

Topic

Digitization of the test module production tracking table

Description :

Creation of a dynamic interface capable of importing data from the ERP and translating it into a dashboard that updates automatically



Profile

Computer science



Required skills

Programming
Power BI



Number of interns

1 Intern



Tasks



Task

1 Identification of the production steps



Task

3 Analyze the existing situation (Dashboard Capex)



Task

2 Develop an ERP dashboard interface that displays real-time production tracking



Task

4 Simulate and validate



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Department

Production & Infrastructure Management

Topic



Layout Simulator using Auto CAD & Visual Basis

Description :

Development of a smart solution to minimize the designing time of a lay-out, respecting the objective of space efficiency



Profile

Computer science
Mechanics
Production Engineering
Industrial Engineering
Industrial Computing



Required skills

Programming
AutoCAD
Artificial Intelligence



Number of interns

2 Interns



Tasks



Task

1 Prepare a database and preprocess data



Task

2 Develop a smart tool that enables fast generation



Task

3 Set up an interface between the software and AutoCAD



Task

4 Simulate and validate



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Department

Production & Infrastructure

M



Topic

Ergonomic Workplace Simulator

Description :

Develop a simulation tool to determine the ergonomics of the workstation



Profile

Industrial computing
Mechanics



Required skills

Programming
Interface development
AI



Number of interns

2 Interns



Task

1 Observe and analyze the existing situation



Tasks



Task

2 Create a bibliography



Task

4 Develop a solution to improve the ergonomics of workstations



Task

3 Collecting and Analyzing Inputs



Task

5 Test, simulate the solution, develop and validate it



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Department

Production & Infrastructure Management

Topic



Creation of a Platform: Capex N+1, Production Equipment, Capacity Planning

Description :

Digitization of data relating to the creation of Capex N+1, Equipment production and capacity studies



Profile

Computer science
Development
Data Science



Required skills

Programming



Number of interns

2 Interns



Tasks



Task

Analyze the existing situation



Task

Simulate and Validate



Task

Develop a real-time data visualization interface: Hybrid interface (Mobile / Computer)



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Department

Production & Infrastructure

Topic

Description :

Implementation of the Andon System - Cutting and Crimping Areas

Implementation of the Andon system as a key component of continuous improvement to design a visual alert and real-time problem communication system to ensure a quick response and minimal disruption



Profile

Information technology
Electronic engineering engineer



Required skills

Basics of electricity and equipment
Familiarity with Arduino, data analysis and reporting, Power BI, Excel, or custom web interfaces



Tasks



Number of interns

2 Interns



Task

Improves response time to problems



Task

Reduces downtime and waste



Task

Enhances communication between teams



Task

Supports continuous improvement by tracking recurring issues



Scan to app ly

Department

Production & Infrastructure Management

Topic



Study and implementation of an error-proofing system in a cutting machine

Description

Implementation of an Automatic Detection System for Machine-Integrated Production Stop in Case of Crimping Quality Defects



Profile

Industrial / electronic computer engineer



Required skills

Basics of electricity and equipment
Familiarity with Arduino, data analysis and reporting, Power BI, Excel, or custom web interfaces



Number of interns

2 Interns



Tasks



Task

System Analysis and Requirements Definition



Task

Testing, Validation, and Optimization



Task

Design and Development of the Error-Proofing System



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Department

Production & Infrastructure

Topic

Description :

Dashboard for Cabling Configuration Analysis and Weekly Optimization

Set up a tool to analyze, on a weekly basis, the different wiring configurations that will be launched, as well as to ensure accurate monitoring of the cycle times associated with each configuration.



Profile

Industrial Computer Engineer or Real-Time Computer Engineer



Required skills

Skills in data structuring and interpretation, proficient in Excel, VBA, and Power BI



Number of interns

2 Interns



Tasks



Task

- 1- Data organization
- 2- Analysis of wiring configurations



Task

- 3- Development of the analysis tool
- 4- Dashboard display



Task

- 5- Proposal of improvements
- 6- Project documentation
- 7- Presentation and communication



Scan to app ly

Department

Production & Infrastructure Management

Topic

Preparation of the project's startup status through a dashboard to monitor all project phases

Description :

Preparation of startup resources: capacity study, implementation of the process, group ramp-up,



Profile

Electromechanical
Industrial



Required skills

Planning and organization;
Technical skills; Innovation and
creativity; Time management;



Number of interns

2 Interns



Tasks

1 

Task

Definition of the project and
its objective

2 

Task

- Development of the project plan
- Identification of stakeholders
- Development of a risk management strategy

3 

Task

- Creation of the specifications
- Definition of performance indicators
- Launch the project



Scan to apply

Department

Production & Infrastructure

Topic

Develop a web application to manage the entire lifecycle of test modules.

Description :

The application must allow Importing Excel files in the standard LEONI format and Tracking modules through multiple stages of the process.



Profile

Computer Science



Required skills

HTML, CSS, JavaScript framework (React / Angular / Vue) (Laravel, Django, Node.js, .NET)
REST API design, JWT / OAuth authentication
SQL, Knowledge of UX/UI



Number of interns

2 Interns



Task

Analysis & Design



Task

Backend and Frontend Development



Tasks



Task

Testing, Deployment and Maintenance



Scan to apply

Department

Production & Infrastructure Management

Topic

Embedded System for Automated Compliance Testing

The system must perform the following functions:

- Automatic selection of test points via multiplexers/demultiplexers.
- Complete pinout testing (pin mapping).
- Optional export of results to a PC (USB/UART).

Description :



Profile

Electronics
Industrial Computing
Automation
Embedded System



Required skills

Design of electronic schematics
PCB (Printed Circuit Board)
Height/mechanical sensors



Number of interns

2 Interns



Task

1 Analysis and Specification



Tasks



Task

3 Integration and Testing
Commissioning



Task

2 Electronic Design
Firmware
Development



Scan to apply

Department

Legal Tunisia

Topic

Development of an application for Legal Department

Description :

Creation of a platform which aims to monitor the progress and execution of contracts with LEONI partners and to alert in case of exceeding deadlines



Profile

Web Development
Data science



Required skills

Computer skills



Number of interns

1 Intern



Tasks



Task

1 Study and Analyze the Need



Task

2 Create a platform



Task

3 Test and validate



Scan to apply

Department

Human Resources Tunisia

Topic



The determining factors of well-being at work

Study well-being based on industry theory with an emphasis on the generational gap and the expectations of different generations

Description :



Profile

HR
Management
Psychology



Required skills

Knowledge in Management
Knowledge in Psychology



Number of interns

2 Interns



Tasks



Task

1 Observe and Analyze the situation



Task

2 Planning semi-structured interviews



Task

3 Interpretin g the results



Task

4 Propose solutions



Scan to apply

Department

Human Resources Tunisia

Topic **The Impact of Hybrid Management on the Employee and the Company**

Description : Measuring the Positive and Negative Impact of Remote office on Company Performance, Employee Engagement, Belonging and Motivation



Profile

Management
HR



Required skills

Knowledge in Management
Knowledge in HR



Number of interns

1 Intern



Tasks



Task
1 Observe



Task
3 Interpret the results



Task
2 Analyze the situation



Task
4 Propose solutions



Scan to app ly

Department

Human Resources Tunisia

Topic



Causes of absenteeism and solutions

Description

Absenteeism is becoming a major problem for the smooth operation of LEONI, which leads to search for best practices to reduce it



Profile

HR
Management
Psychology



Required skills

Data analysis
Knowledge in employee
Management



Number of interns

3 Interns



Tasks



Task

Study the literature review (search for best practices in absenteeism management)



Task

Analyze the need and solutions



Task

Adapt it to LEONI's context and culture



Task

Interpreting the results



Scan to apply

Department

Human Resources Tunisia

Topic

Optimization strategies to improve employee motivation and productivity

Description :

Exploration of incentive methods (compensation, recognition, work-life balance) and their impact on performance



Profile

HR
Management
Information systems
Management



Required skills

Analytical mindset
Computer skills



Number of interns

3 Interns



Tasks



Task

Study intrinsic motivation factors



Task

Analyse indicators and identify the causes of employee demotivation



Task

Implement an action plan



Task

Interpreting results



Scan to app ly

Department

Human Resources Tunisia

Topic  Development of a reward points application

Description : Development of a points collection application as a motivational tool



Profile

Computer Engineering



Required skills

Development Programming



Number of interns

1 Intern



Tasks

1

Task

Define evaluation criteria and types of rewards

2

Task

Develop a digital platform for rewards management

3

Task

Implement the system with a test pilot

4

Task

Analyze the results to optimize the program



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Department

Operational Excellence Tunisia

Topic

Makigami process optimization

Description :

Analyze and optimize the workflow using the Makigami Process to identify inefficiencies, reduce non-value-added activities, and improve overall process performance.



Profile

Industrial engineering
Mechanical Engineering
Electromechanical
Engineering
Electrical Engineering
Mechatronics engineering



Required skills

Proficiency in problem-solving tools
Continuous improvement



Tasks



Number of interns

1 Intern



Task
Identify the process



Task
Implement an action plan



Task
Determine the initial state: before Makigami



Task
Trace the Makigami and standardize it



Scan to apply

Department

Plant **Manzel Hayet**

Topic



Study and design of a Tulle spreader

Description :

Develop or optimize a tulle spreading device for a specific process



Profile

Mechanical
Engineering
Electro-
Mechanical
Engineering



Required skills

SolidWorks Catia (CAD)



Number of interns

2 Interns



Tasks



Task

Analyze the tulle spacing requirements in the process



Task

Develop the database



Task

Prototype a manual tool to ergonomically separate the tulle



Task

Test the tool in the field and gather user feedback



Scan to apply

Department

Plant Manzel Hayet

Topic



Process improvement and Smart Shelf design

Description :

Improvement of the error-proofing system process during feeding and assembly



Profile

Mechanics
Electromechanics
IoT
Electrical, Industrial
Electronics



Required skills

Computer Science
Electromechanics



Number of interns

2 Interns



Tasks



Task

Studying what already exists



Task

Analyze the functional need



Task

Electromechanical design



Task

Simulate and perform



Scan to apply

Department

Plant **Manzel** Hayet

Topic

Conception of a Multi-purpose wire support

Description : Managing very long wires and electromechanical solutions



Profile

Mechanics
Electromechanics



Required skills

Mechanical /
electromechanical system
design and dimensioning



Number of interns

2 Interns



Tasks



Task

Studying what already exists



Task

Analyze the functional need



Task

Having an electromechanical design



Task

Simulate and perform



Scan to apply

Department

Plant Manzel Hayet

Topic

Master of the procurement process on LAD

Description : Supply efficiency during downtime



Profile

Industrial engineering
AI (Industries 4.0)



Required skills

Computer Science
Electromechanics



Number of interns

2 Interns



Task

Study the existing system and understand the LAD process.



Tasks



Task

Information retrieval



Task

Improving the process



Task

Analyze the functional need



Task

Simulate and perform



Scan to apply

Department

Plant **Manzel** Hayet

Topic



Automation and improvement of the trolley concept

Description :

Problems with maintenance, attachment, handling, design and synchronization between Sky Track and the conventional chain.



Profile

Electromechanics
Automation
Robotics



Required skills

- Industrial computing -
Mechatronics



**Number of
interns**
2 Interns



Tasks



Task

Studying the existing situation



Task

Design the prototype



Task

Analyze the functional need



Task

Simulate and perform



Scan to apply

Department

Plant Manzel Hayet

Topic

Development of a BI (Business Intelligence) application

Description :

Development of a BI application that allows real-time visualization of results



Profile

AI
Data/BI



Required skills

knowledge of data management
BI tools
Knowledge of Industry 4.0



Number of interns

2 Interns



Task

Diagnose and develop specifications



Tasks



Task

Analyzing data / Working with databases



Task

Use BI tools for development



Task

Integrate and centralize data



Task

Test and validate the application



Scan to apply

Department

Plant **Manzel** Hayet

Topic



Design and development of a wire power supply support

Description :

Difficulty in powering the cable / Risk of damage / Difficulty pulling long wires



Profile

Mechanical
Electrical



Required skills

Mechanical design
CAD



Number of interns

2 Interns



Tasks



Task

1 Perform mechanical design



Task

2 Design and develop electronics



Task

3 Implement a prototype



Task

4 Validate and create the prototype



Scan to apply

Department

Plant Manzel Hayet

Topic

Smart LAD MRA

Digitalization and optimization of the LAD production line

Description : Interface for viewing the manufacturing order, operating procedure and snap-fit diagram



Profile

Electric Programming



Required skills

Programming Development



Number of interns

2 Interns



Task

Study of the existing situation



Tasks



Task

Master of the production chain (line)



Task

Creation of the interface



Task

Digitalization of the operating procedure



Task

Simulation and Validation



Scan to app ly

Department

Plant **Manzel** Hayet

Topic



Creation of a mechanical prototype to manipulate assembly boards

Description :

Developing of a mechanical system that facilitates the handling of assembly boards



Profile

Electromechanical
Mechanics



Required skills

3D design software



Number of interns

1 Intern



Tasks



Task

Study the current state



Task

Sizing the components



Task

Create a 3D design of the solution



Task

Create a prototype



Scan to apply

Department

Plant BMW

Topic



Study, design and production of an automated adhesive tape prototype (Tesa)

Description :

Design and manufacture of an automatic prototype (machine) for distributing a product (adhesive plug = Tesa) solid against vacuum



Profile

Mechanical Engineering
Electromechanics



Required skills

Mechanical design and
production



Number of interns

1 Intern



Tasks



Task

Carry out mechanical design



Task

Carry out an electronic design
and develop IT



Task

Implement a
prototype



Task

Validate and create
the prototype



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Department

Plant **BMW**

Topic



Improved OEE and cutting machine performance

Description :

The operator must adjust the machine speed according to the coil consumption



Profile

Industrial Computer Engineering Graduate Electronics/ Electromechanical Engineer



Required skills

Programming



Number of interns

1 Intern



Task

Creation of an Arduino-based electronic board with weight sensors to provide a machine speed reduction alert based on the weight of the coil



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Department

Plant BMW

Topic

Application for predictive maintenance

Description : Create an application to ensure predictive maintenance



Profile

Business intelligence
Data engineering



Required skills

Programming
Natural Language Processing
Probabilistic Models
Deep Learning.AI



Number of interns

1 Intern



Tasks



Task

Data Collection and Sensor Integration



Task

User Interface and Alert System



Task

Predictive Analytics Development



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Department

Plant Volkswagen

Topic



Creation of a smart management application

Description :

Leveraging a skills matrix / Managing technician availability / Implementing a smart application for selection



Profile

Embedded Systems
Electrical Engineering



Required skills

AI
Flutter "Mobile/Web"



Number of interns

2 Interns



Tasks



Task

Leveraging data



Task

Manage availability



Task

Implement



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Department

Plant Mercedes Benz

Topic

KPI Management: Creation of a Frequency Tracking Application

Description : Creation of a frequency tracking application for KPI management



Profile

Computer engineer



Required skills

Development



Number of interns

1 Intern



Tasks

1

Task

Collect data from the indicators to be monitored

2

Task

Creation of an interface that displays the results in real time

3

Task

Creating a database of indicators to make a well-organized history



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Department

Plant Mercedes Benz

Topic  Optimization of the assembly process (from cutting to assembly)

Description : Optimization of Stoss pre-assembly workflow (from cutting to assembly)



Profile

Industrial Engineer



Required skills

Production management



Number of interns

1 Intern



Tasks



Task

Material flow tracking



Task

Stock management



Task

Good optimization of assembly planning



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Department

Plant Mercedes Benz

Topic

Automation of an assembly line

Description :

A design to handle multiple production runs of more than 2 on the same line and manage setup time at the assembly line level



Profile

Mechanical Engineer
Electrical Engineer
Automation Engineer



Required skills

Mechanical Design
Programming Skills



Number of interns

1 Intern



Tasks



Task

Create a New Mechanical Design



Task

Create a program to automate an assembly line



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Department

Plant **Sidi Bouali**

Topic



Digitization of canteen menus and order placement

Description

Creation of a mobile application that allows ordering meals from a daily menu



Profile

Web and Mobile Development



Required skills

Web and mobile development



Number of interns

2 Interns



Tasks



Task

Designing a mobile web platform



Task

Develop the user application



Task

Develop the Back Office



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Department

Plant Sidi Bouali

Topic

Real-time RFT display digitization

Description :

Extraction of the indicator from different sources in order to subsequently display them in real time in an interface using the Python language, React,...



Profile

Automation
Industrial Computing
Embedded System



Required skills

Automation



Number of
interns
1 Intern



Tasks

2

Task

Design a star-shaped model

3

Task

Develop a monitoring dashboard



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Your PFE Idea Proposal

Topic 

Propose Your PFE Idea

Description :

Scan the QR code below and
submit your project proposal



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