



# PFE BOOK

# 2025



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# WELCOME TO COFICAB

COFICAB Internship Program is different from the classic internship programs. With us, the trainee will be the leader of their own learning journey as they will have a say in the direction of their projects.

Throughout their journey in COFICAB, the trainees will be supported by our qualified trainers and mentors who will be available at all times to provide a supportive environment and a range of learning opportunities to facilitate growth and development.

All activities and support strategies are designed to encourage the trainee to reflect on their needs and to prepare them for their future career.



# ABOUT US

COFICAB is a recognized worldwide leader in the design, manufacturing, and sales of cables and wires for tomorrow's automotive technologies.

COFICAB has been building a global footprint, expanding steadily and consistently through a well-thought network of facilities, R&D and sales offices. We are now present in 4 continents, making business in 10 different languages.

COFICAB is committed to producing state-of-the-art cables that meet the most demanding standards in the automotive industry.

At COFICAB, we are powered by passion, committed to doing ordinary things extraordinarily well, with the mindset of a teamwork for the win and an aim for the highest standards of ethical behavior in everything we do.

COFICAB, does not only aim to stand out in the marketplace but also in the workplace, so it can continue to be regarded as an employer of choice, holding together a strong effective team.

COFICAB strives to continuously be at the edge of technology, providing innovative solutions to reach the ultimate goal: our clients' satisfaction.

**Powered by passion, we are committed to taking you forward, connecting you to the future!**



# OUR **VALUES**

## PASSION

We believe that what we do makes the difference: we are very proud about the place COFICAB made itself within the automotive industry.

## ETHICS

We aim for the highest standards of ethical behavior in everything we do.

## COMMITMENT

We are committed to do ordinary things extraordinarily well.

## TEAMWORK

We bring the Best of ourselves to work and empower one another to maximize our collective potential.



# KEY FIGURES



**40 Million Kilometers**  
Of Wires & Cables Sold (2024)



**N° 1 Worldwide**  
With 23%  
Market Share In The Automotive Industry  
Cables And Wires

**21**  
**Production**  
**Sites**

**14**  
**Sales Offices**

**4**  
**R&D+I**  
CENTERS OF EXCELLENCE

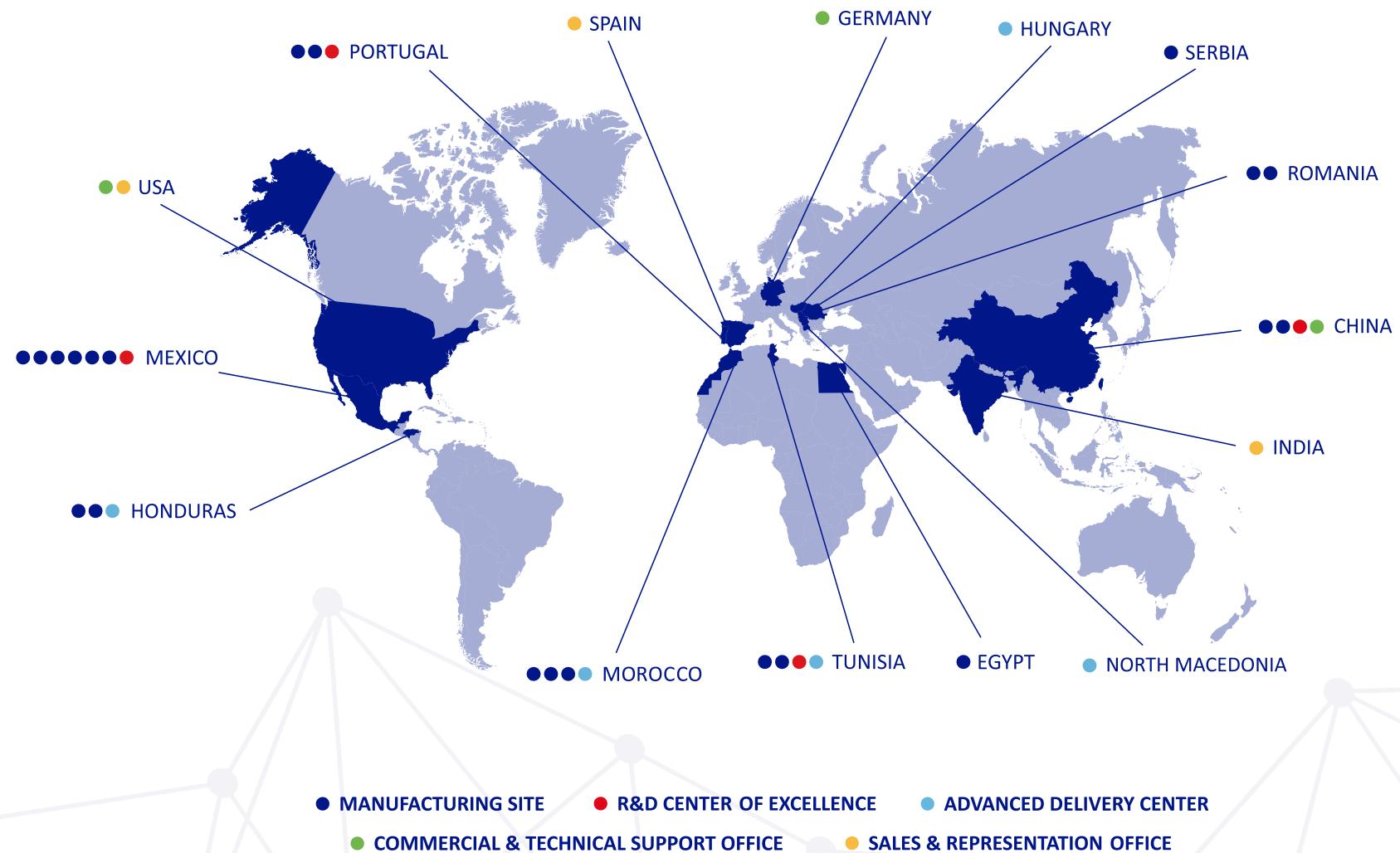
**4**  
**Continents**

14 COUNTRIES



**8000**  
**Employees**

# OUR GLOBAL FOOTPRINT



# OUR INTERNSHIPS



# IT ENGINEERING DEPARTMENT



# IT Engineering Department

## 1<sup>st</sup> Topic:

**Development of a zero-Day Vulnerability Aggregator and Threat Intelligence Dashboard.**

**Requested Skills:**

- Cybersecurity & Vulnerabilities Management,
- Python, Javascript, Angular, ReactJs.

**Diploma:**

- Cybersecurity Engineering.

## 2<sup>nd</sup> Topic:

**Dark Web Breach Detection and Monitoring.**

**Requested Skills:**

- Cybersecurity & Vulnerabilities Management,
- Python, Javascript, Angular, ReactJs.

**Diploma:**

- Cybersecurity Engineering.

**Apply at: [application.coftn@coficab.com](mailto:application.coftn@coficab.com)**



# IT Engineering Department

3<sup>rd</sup>

## Topic:

**Implementation of a Security Incident Management Solution.**

### Requested Skills:

- Web Security Knowledge, Full Stack Development.

### Diploma:

- Bachelor's/ Master's Degree in Software Development.

4<sup>th</sup>

## Topic:

**Management of IP Resources.**

### Requested Skills:

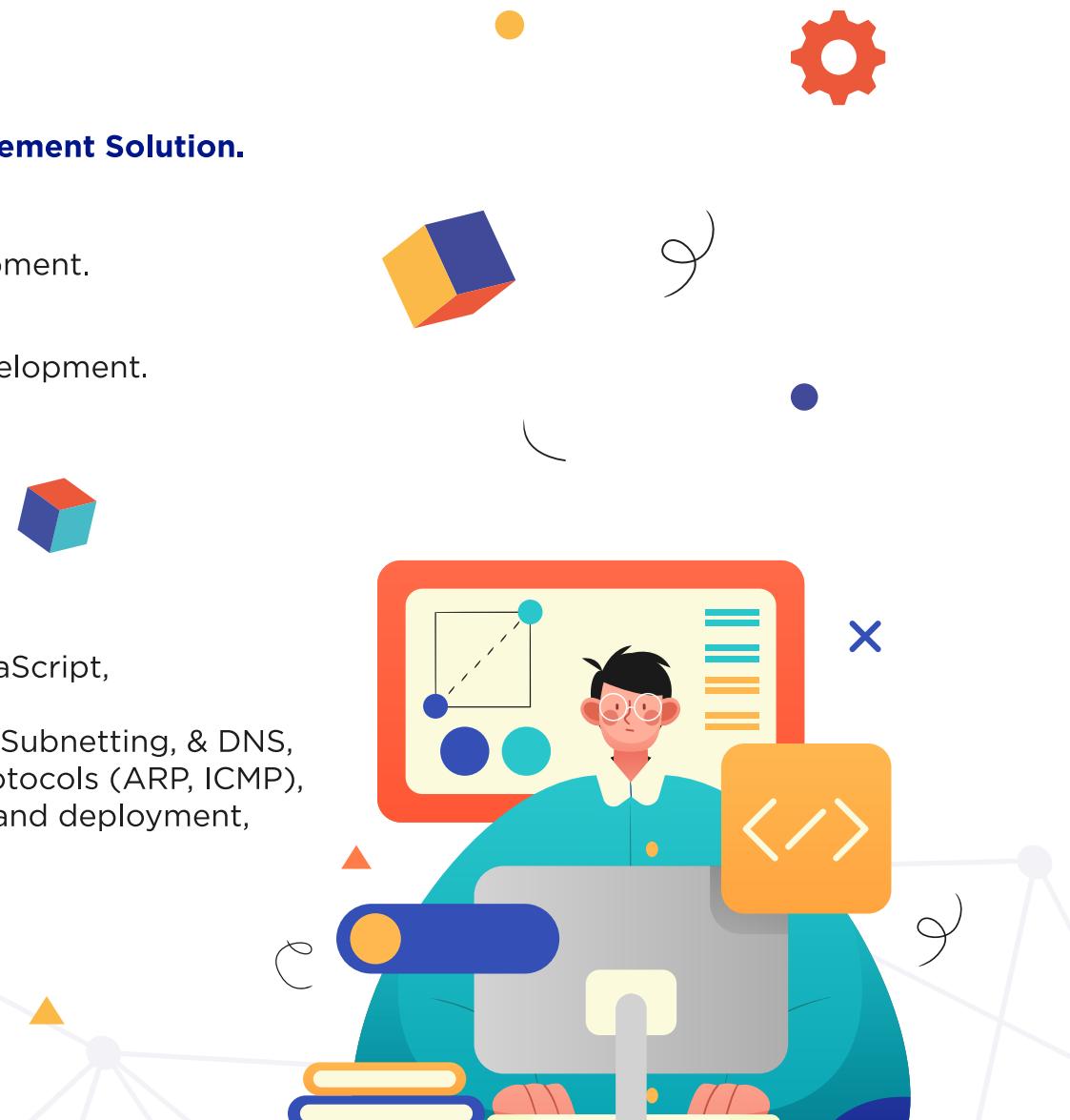
- Python, PHP, Shell Scripting, HTML, CSS, JavaScript,
- MySQL/MariaDB, Networking fundamentals,
- Understanding of IP addressing (IPv4/IPv6), Subnetting, & DNS,
- Familiarity with network scanning tools & protocols (ARP, ICMP),
- Proficiency in Linux for Server Management and deployment,
- Web Development Skills.



### Diploma:

- Network Engineering.

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# IT Engineering Department

## 5 th Topic:

**Reverse Engineering and Optimization of a Manufacturing Execution System (MES).**

### Requested Skills:

- C#,
- Entity FrameWork,
- React or Angular,
- SQL Server,
- HTML CSS,
- JavaScript.

### Diploma:

- Engineering in Software Development.

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# ENERGY **DEPARTMENT**



# Energy Department

## 1<sup>st</sup> Topic:

**Supervision, Monitoring, and Optimization of a 4MWp Rooftop Photovoltaic Power Plant:  
Performance Assessment, Profitability Analysis, and Environmental Impact Evaluation.**

### Requested Skills:

- PV System Life Cycle Assessment, Decommissioning Planning and Execution.

### Diploma:

- Energy/ Electrical Engineering.

## 2<sup>nd</sup> Topic:

**Feasibility Study & Optimization of a 10MWp Ground-Mounted  
Photovoltaic Power Plant: A Comprehensive Technical,  
Economic, and Environmental Analysis.**

### Requested Skills:

- PV System Life Cycle Assessment,
- Decommissioning Planning and Execution.

### Diploma:

- Energy/ Electrical Engineering.

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# Energy Department

3<sup>rd</sup>

## Topic:

**Implementation of a Centralized and Automated System to Monitor and Optimize the Energy Consumption of Lighting Installations.**

### Requested Skills:

- Automation,
- Mechatronics.

### Diploma:

- Electro-Mechanical/ Energy Engineering.

4<sup>th</sup>

## Topic:

**Installation of an Automated System to Optimize Energy Consumption during Production Downtime.**

### Requested Skills:

- Automation,
- Mechatronics.

### Diploma:

- Electro-Mechanical/ Energy Engineering.

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# Energy Department

**5<sup>th</sup>** Topic:

**Digitalization and Optimization of the ISO 50001 Energy Management System to Improve Energy Performance.**

**Requested Skills:**

- Software Development, Automation, ISO 50001 Knowledge.

**Diploma:**

- Engineering in Software Development.

**6<sup>th</sup>** Topic:

**Energy Efficiency Optimization at COFICAB Headquarters: Audit and Sustainable Recommendations.**

**Requested Skills:**

- Energy Audits, Electrical Knowledge, Energy Efficiency.

**Diploma:**

- Energy Engineering.

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# Energy Department

7<sup>th</sup> Topic:

**System Sequencing and Optimization of Compressed Air Consumption at COFICAB Factory.**

**Requested Skills:**

- Automation, Electrical Knowledge, Energy Efficiency.

**Diploma:**

- Electro-Mechanical/ Energy Engineering.

8<sup>th</sup> Topic:

**Predictive Modeling and Analysis for Energy Optimization in Industrial Processes Using Machine Learning.**

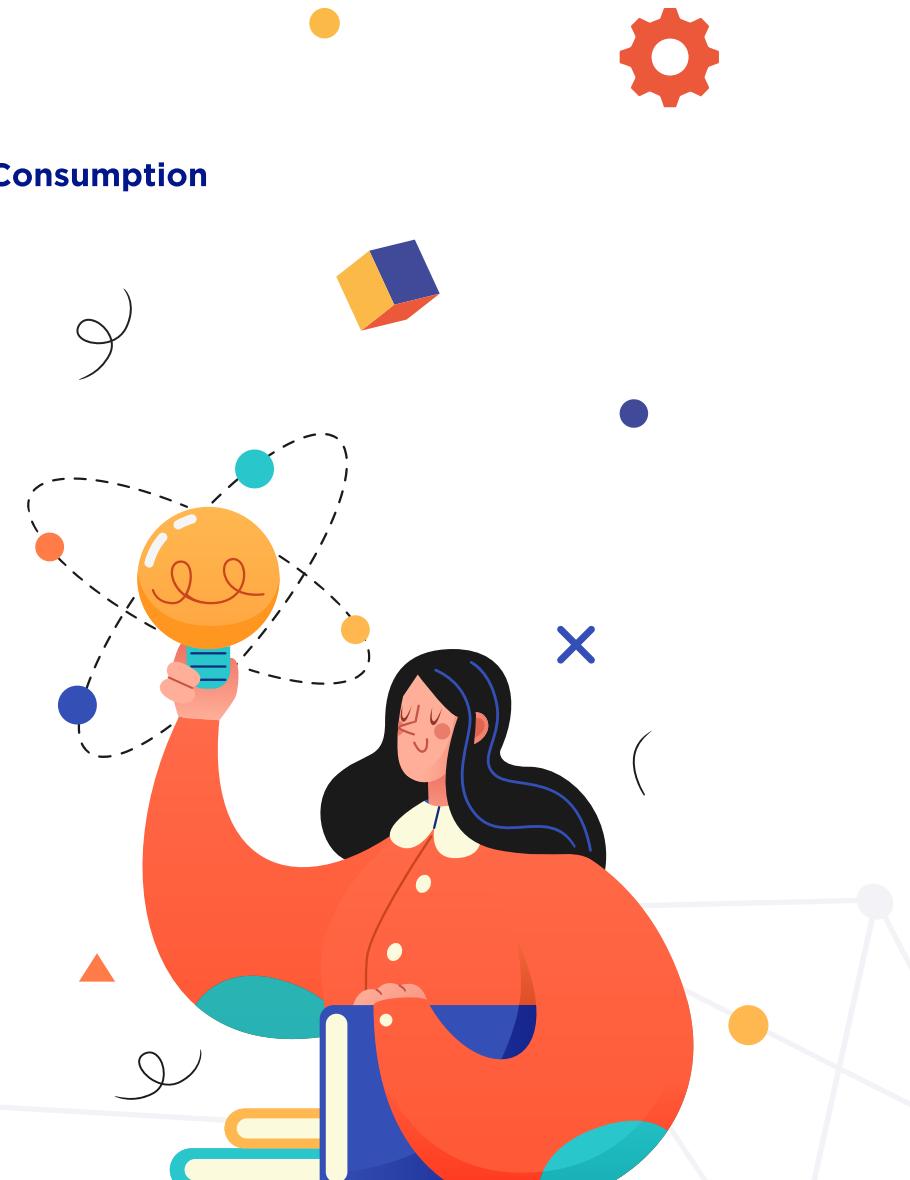
**Requested Skills:**

- SQL, Python, Machine Learning, Power BI.

**Diploma:**

- Engineering in Business Intelligence.

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# RESEARCH & DEVELOPEMENT + INNOVATION **DEPARTMENT**



# R&D+| Department

## 1<sup>st</sup> Topic:

**Effect of Metal Coatings and Conductor Types on Ultrasonic Weldability in Automotive Cables.**

### Requested Skills:

- Mechanical & Numerical Simulation,
- Material Science Knowledge.

### Diploma:

- Materials & Mechanical Engineering.

## 2<sup>nd</sup> Topic:

**Numerical Modeling for Determining the Minimum Bending Angle and Maximum Deformation Force of Busbars.**

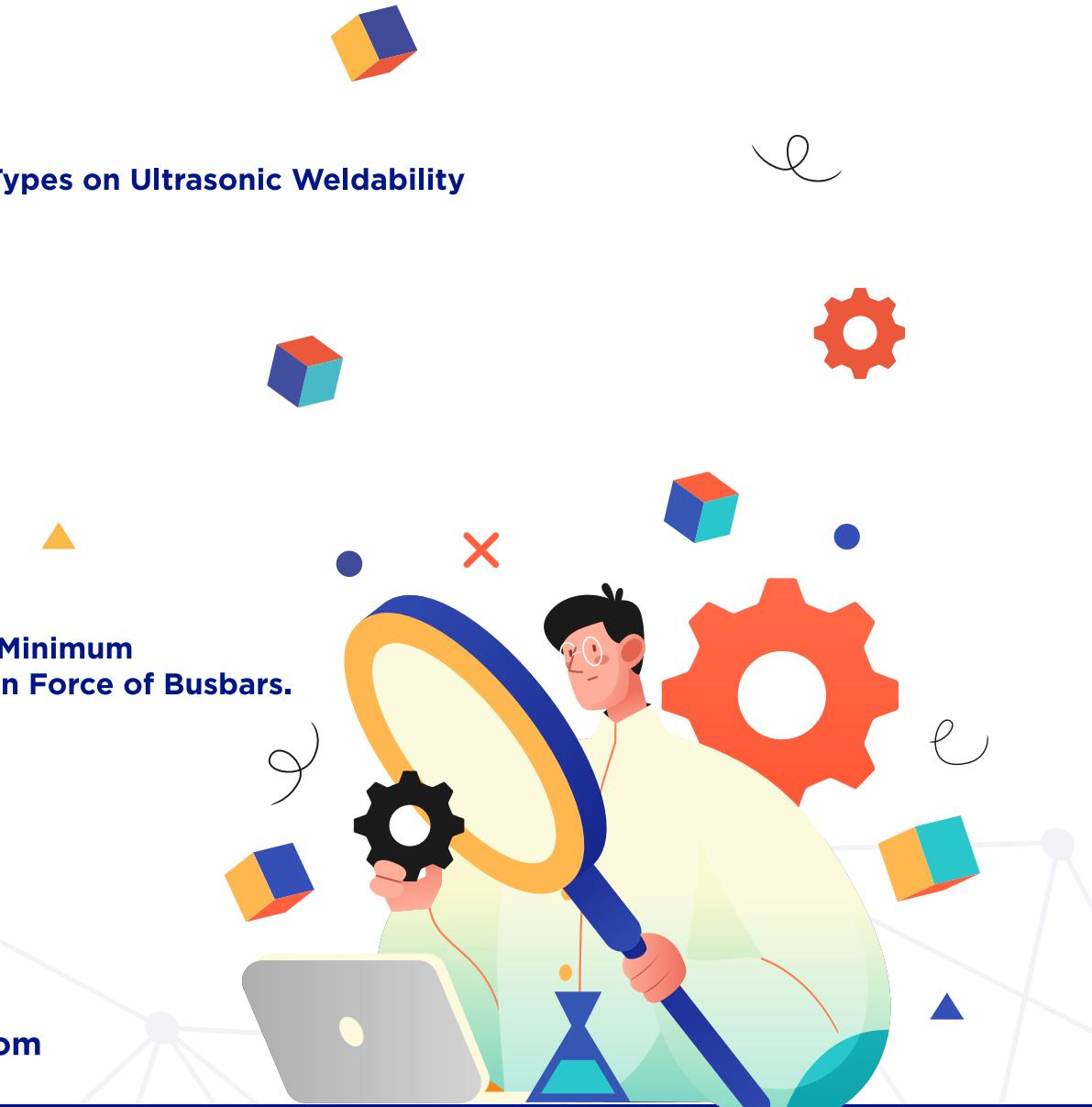
### Requested Skills:

- Mechanical and Numerical Simulation,
- Material Science Knowledge.

### Diploma:

- Materials & Mechanical Engineering.

**Apply at: [application.coftn@coficab.com](mailto:application.coftn@coficab.com)**



# R&D+| Department

## 3<sup>rd</sup> Topic:

**Study of the Impact of Recycling Cycles on the Mechanical and Electrical Performance of Automotive Cable Materials.**

**Requested Skills:**

- Modeling, Mechanical and Numerical Simulation,
- Material Science Knowledge.

**Diploma:**

- Materials & Mechanical Engineering.

## 4<sup>th</sup> Topic:

**Investigating how Bio-based Compounds and Fiber-filled Materials can Improve Durability and Reduce Weight in Cables.**

**Requested Skills:**

- Mechanical and Numerical Simulation,
- Material Science Knowledge.

**Diploma:**

- Materials & Mechanical Engineering.

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# R&D+| Department

## 5<sup>th</sup> Topic:

**Examining how Increased Thermal and Electrical Stress from 48V Batteries Affects the Durability of High-Voltage Cables.**

### Requested Skills:

- Mechanical and Numerical Simulation,
- Material Science Knowledge.

### Diploma:

- Materials & Mechanical Engineering.

## 6<sup>th</sup> Topic:

**Evaluating Cooling Techniques and Solutions for High-Voltage Automotive Cables through both Experimental & Numerical Methods.**

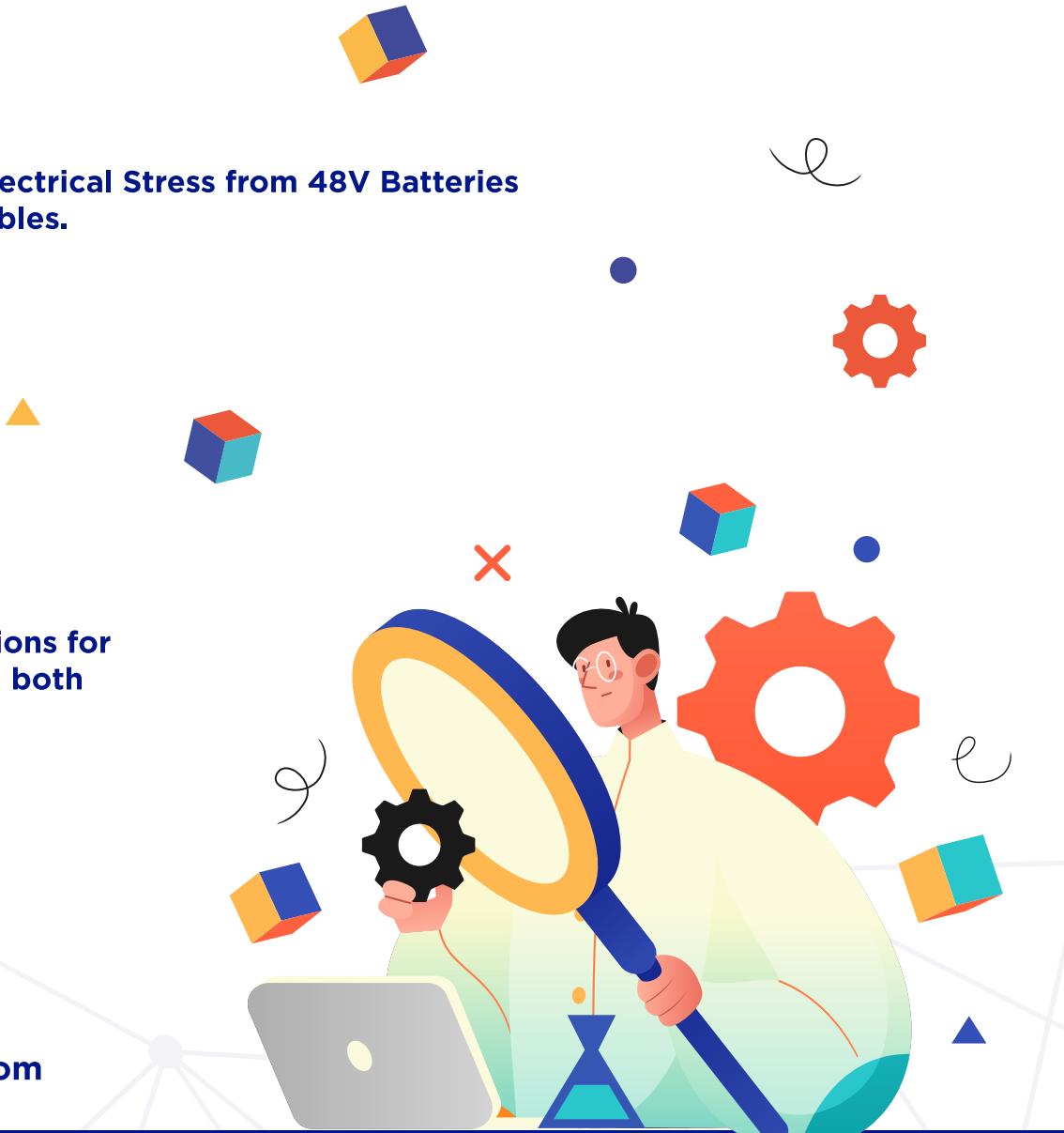
### Requested Skills:

- Mechanical and Numerical Simulation,
- Material Science Knowledge.

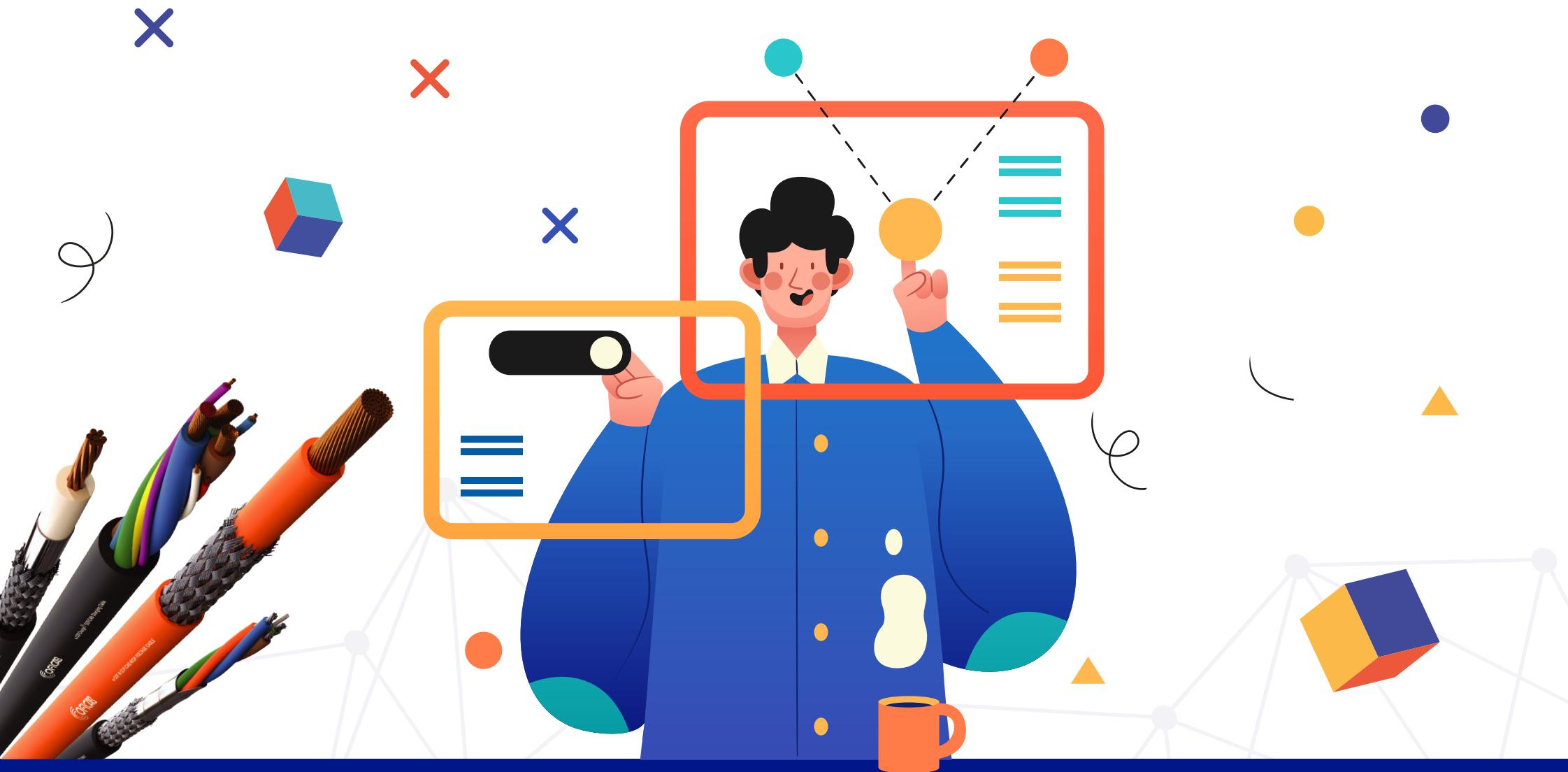
### Diploma:

- Materials & Mechanical Engineering.

**Apply at: [application.coftn@coficab.com](mailto:application.coftn@coficab.com)**



# PRODUCTION **DEPARTMENT**



# Production Department

## 1<sup>st</sup> Topic:

**Improvement of Waste Rate in the Irradiation Plant (XLPE Extrusion) using Lean Manufacturing Tools.**

**Requested Skills:**

- Lean Manufacturing.

**Diploma:**

- Production Engineering.

## 2<sup>nd</sup> Topic:

**Improvement of Waste Rate in the Irradiation Plant using Lean Manufacturing Tools.**

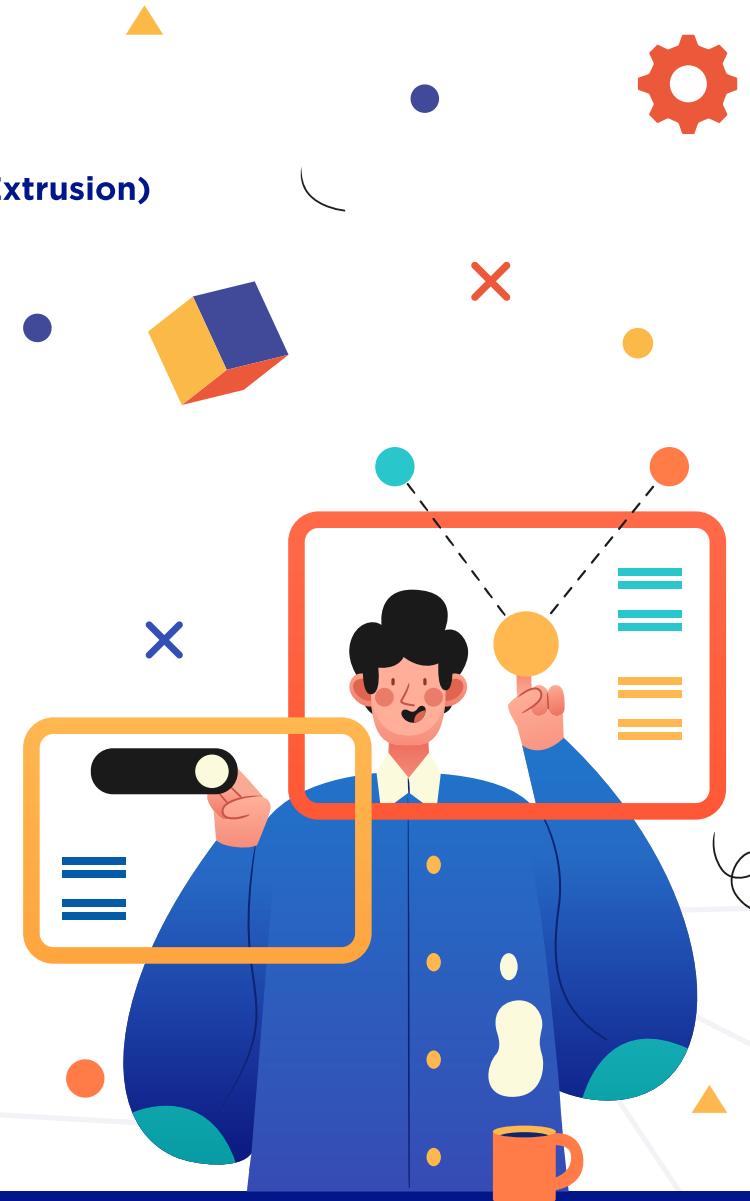
**Requested Skills:**

- Lean Manufacturing.

**Diploma:**

- Production Engineering.

**Apply at: [application.coftn@coficab.com](mailto:application.coftn@coficab.com)**



# Production Department

**3<sup>rd</sup>**

## Topic:

**Study and Implementation of an Automatic Water Cooling Regulation System for Cables in Irradiation Lines.**

### Requested Skills:

- Electronics, Programming, Automation.

### Diploma:

- Electronics & Automation Engineering.

**4<sup>th</sup>**

## Topic:

**Study and Design of Colorant Hoppers with Mechanical Locking for Filling and Use on the Machine.**

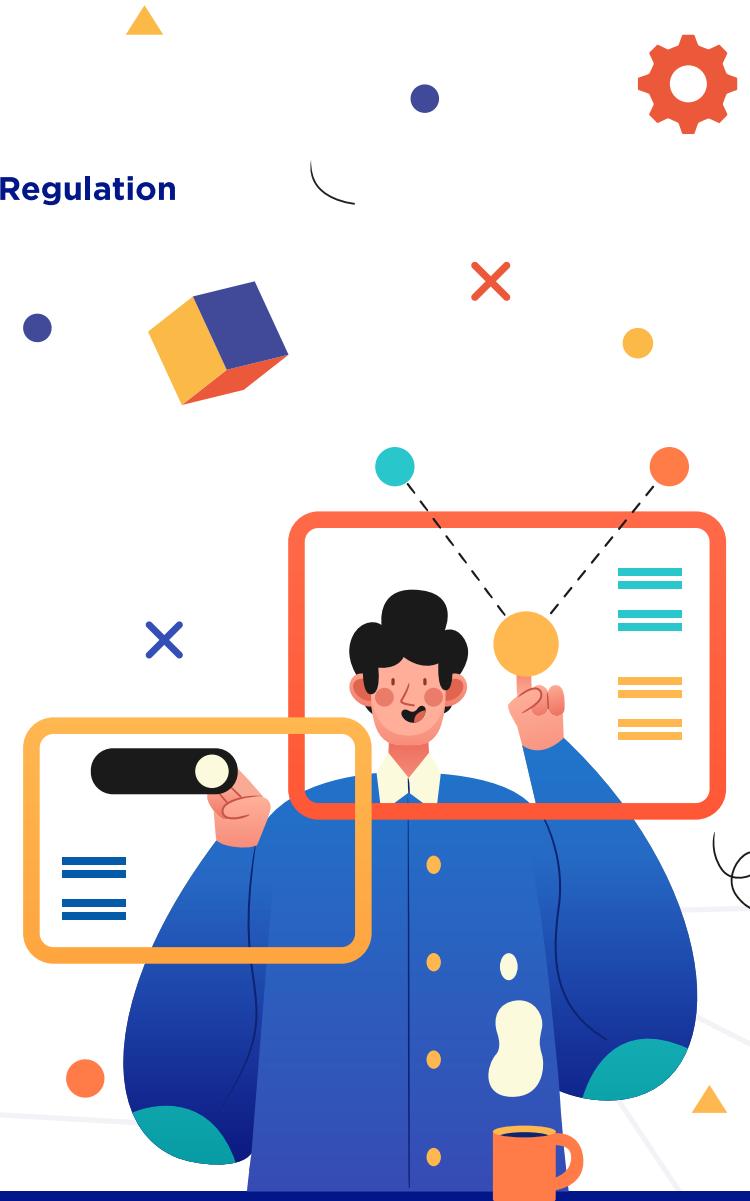
### Requested Skills:

- Mechanical Engineering, CAD (Computer-Aided Design).

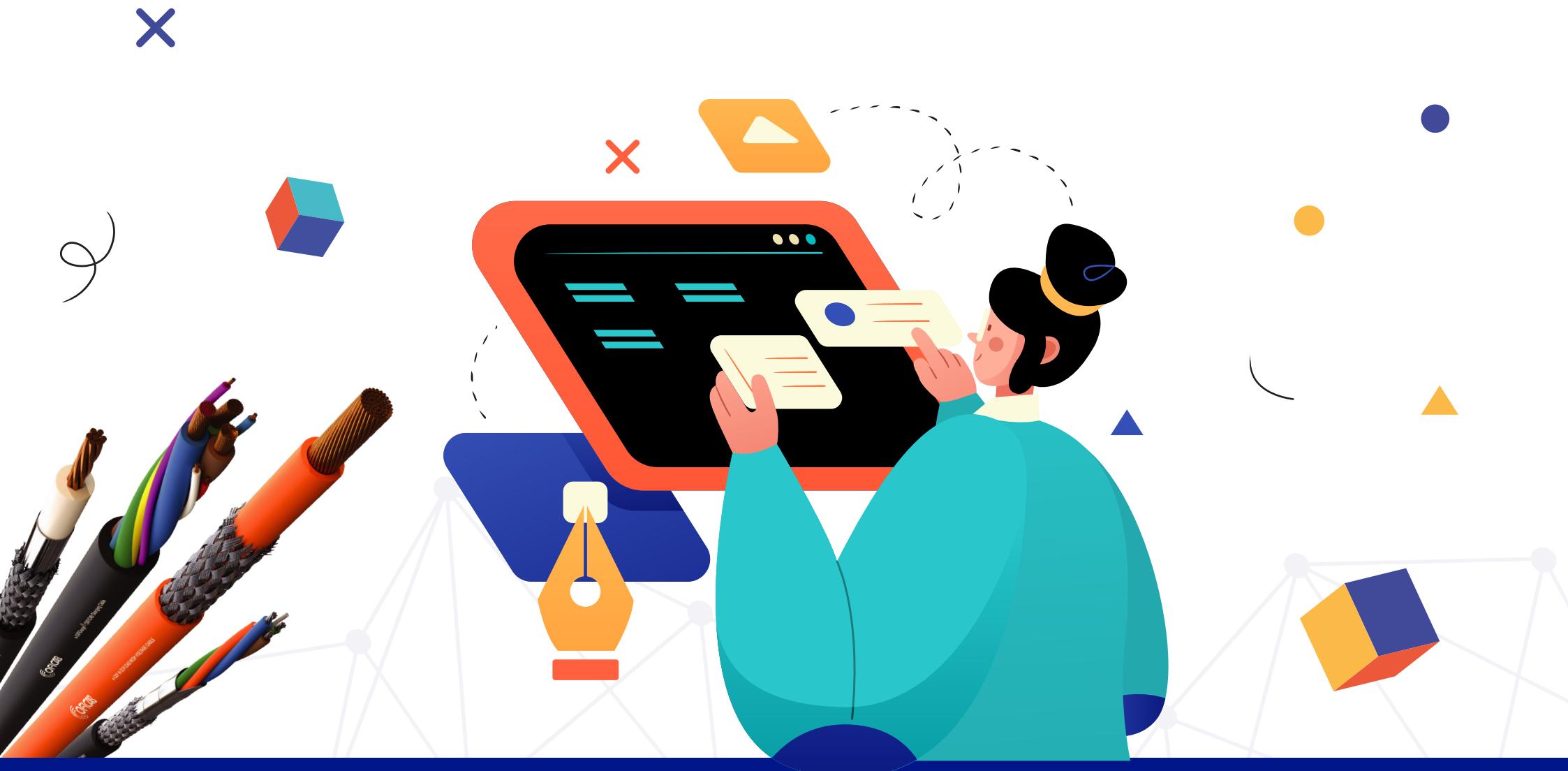
### Diploma:

- Bachelor's Degree/ Mechanical Engineering.

**Apply at: [application.coftn@coficab.com](mailto:application.coftn@coficab.com)**



# COMMUNICATIONS **DEPARTMENT**



# Communications Department

## 1<sup>st</sup> Topic:

**Support Internal Communications, Create Engaging Content for Diverse Channels, and Conduct Research on Industry Trends and Competitor Activities.**

### Requested Skills:

- Excellent command of written and spoken English and French,
- Knowledge in Adobe Ai and Ps,
- Market Research and Analysis, Project Management and Organizational Skills.

### Diploma:

- Bachelor's/ Master's Degree in Communications/ Marketing.

## 2<sup>nd</sup> Topic:

**Assist in Design Projects & Contribute to COFICAB Brand Identity Development.**

### Requested Skills:

- Proficiency in Adobe CC (Ai, Ps, Ae, Id, Lr, etc.),
- Photography & Video Editing.

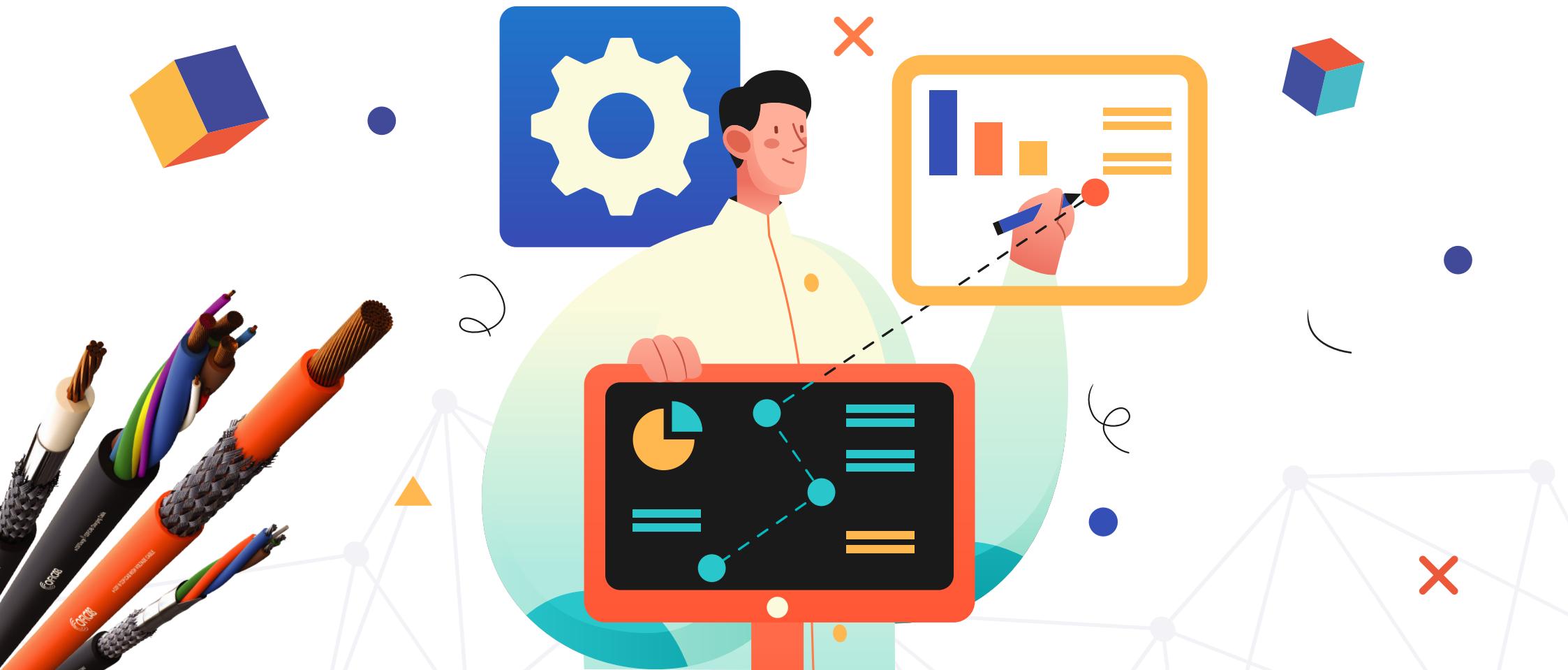
### Diploma:

- Bachelor's/ Master's Degree in Graphic Design.

**Apply at: [application.coftn@coficab.com](mailto:application.coftn@coficab.com)**



# QUALITY ASSURANCE **DEPARTMENT**



# Quality Assurance Department

## 1<sup>st</sup> Topic:

### Development of Test Automation Framework.

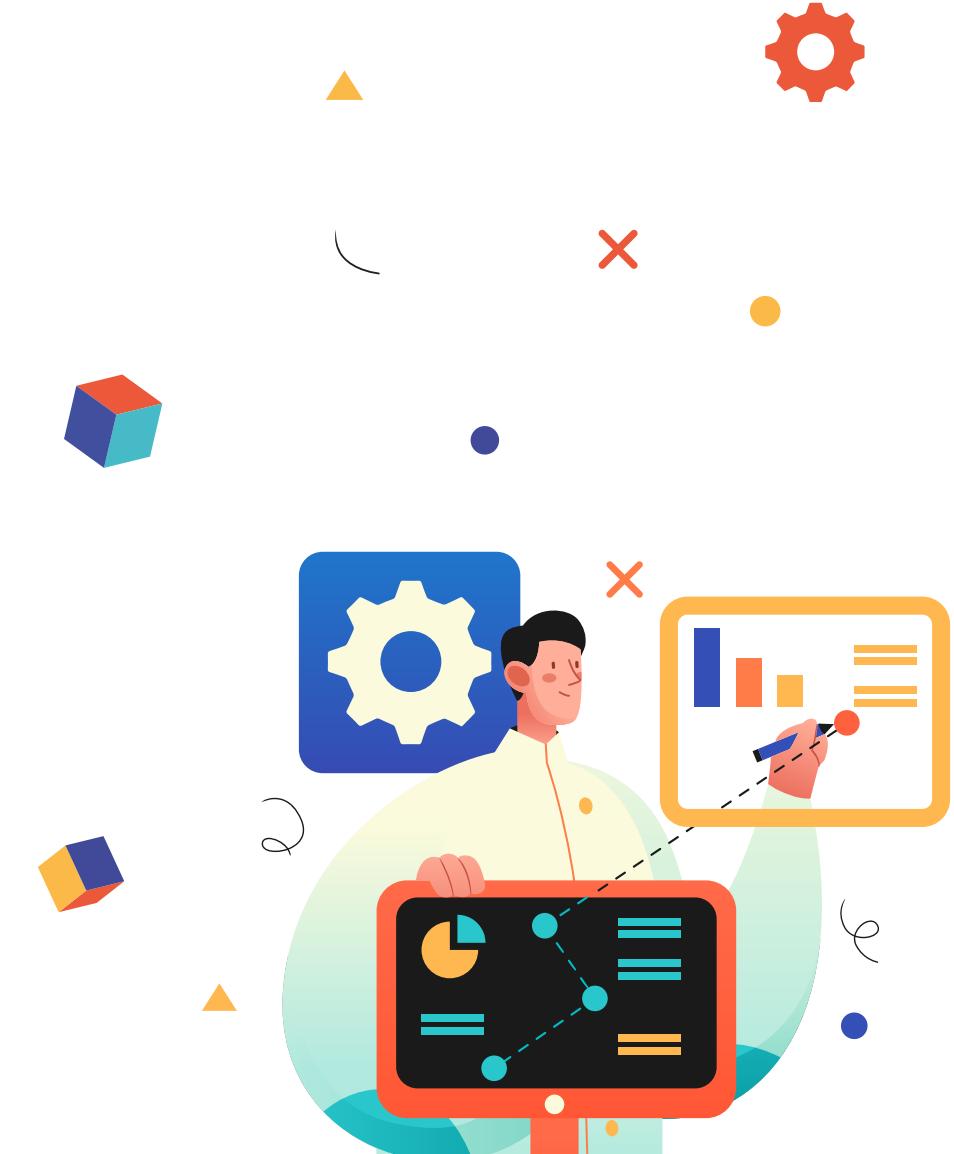
#### Requested Skills:

- ASP.NET Core,
- API Development and Integration,
- Python,
- REST API,
- Database Management.

#### Diploma:

- Engineering/ Master's degree in Quality Assurance.

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# LEGAL & COMPLIANCE **DEPARTMENT**



# Legal & Compliance Department

## 1<sup>st</sup> Topic:

**Support in Multiple Activities Related to Filing and Management of Brand and Logo Registrations.**

**Requested Skills:**

- Has taken at least one course in Intellectual Property Law,
- Good command of the English Language.

**Diploma:**

- Bachelor's/ Master's Degree in Law.

## 2<sup>nd</sup> Topic:

**Research and Collection of Data for Clauses Repository.**

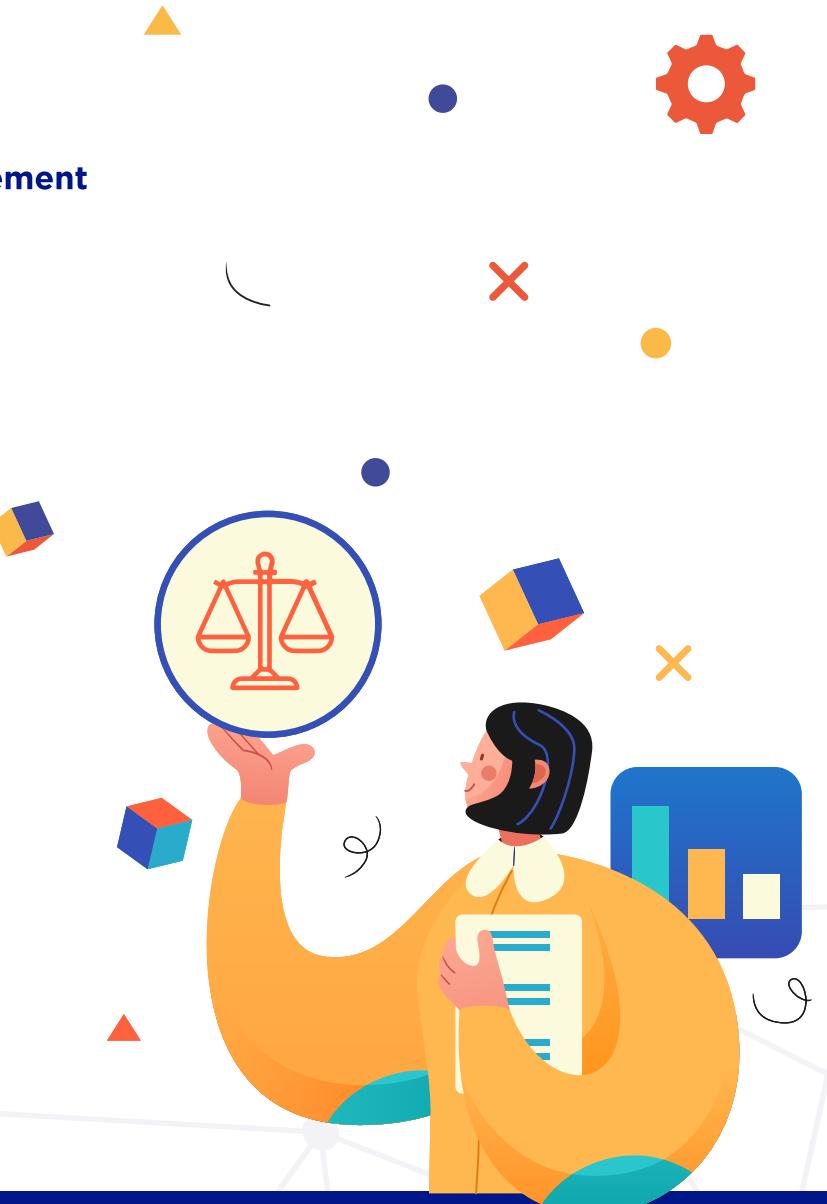
**Requested Skills:**

- Has studied Contracts Law
- Understanding of Common Law, Contracts Law,
- Good command of the English Language.

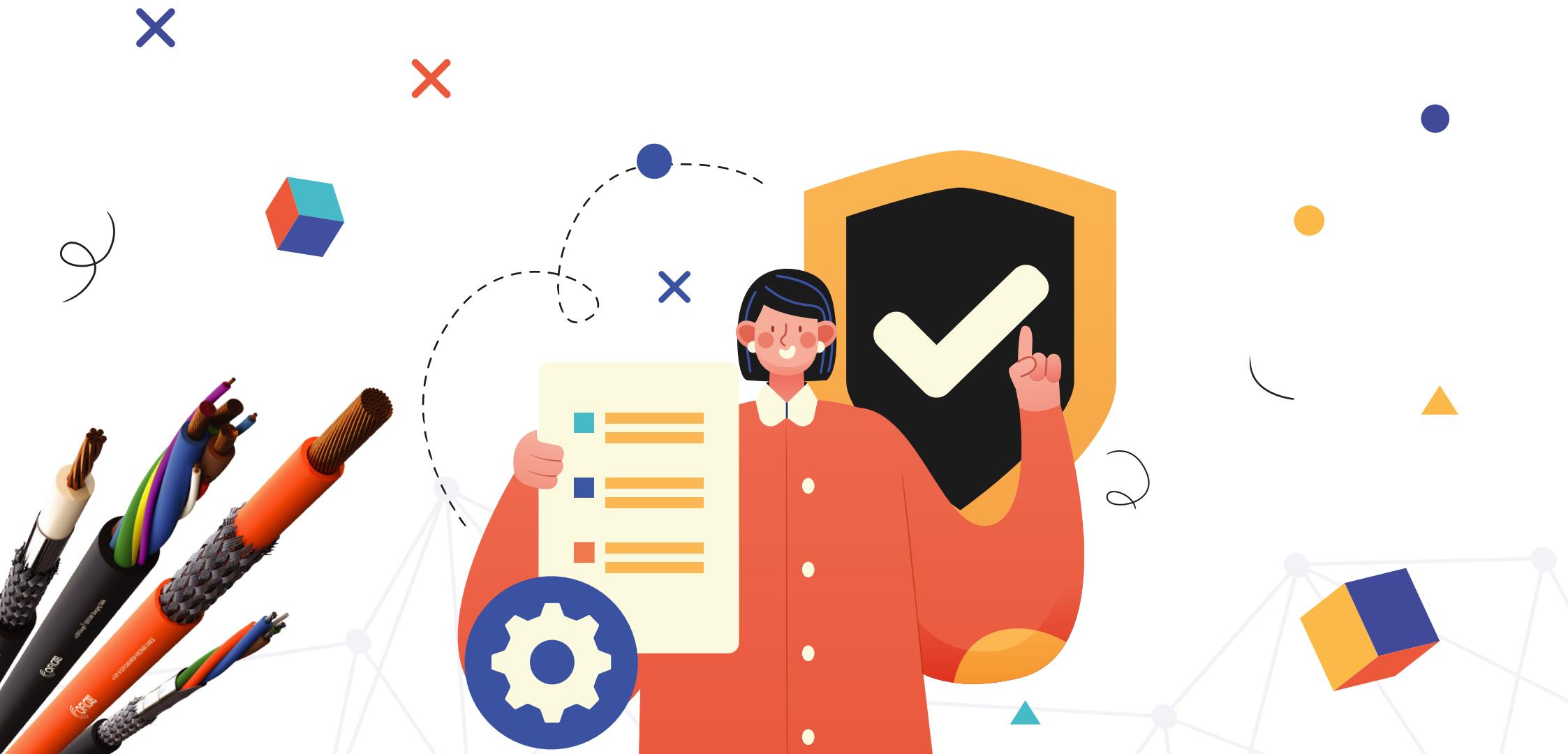
**Diploma:**

- Bachelor's/ Master's Degree in Law.

**Apply at: [application.coftn@coficab.com](mailto:application.coftn@coficab.com)**



# QUALITY DEPARTMENT



# Quality Department

## 1 st Topic:

**Development of an Application for FPS Management and Handover Issues.**

**Requested Skills:**

- Software Development.

**Diploma:**

- Industrial Engineering & Software Development.

## 2 nd Topic:

**Development of an Application for Management of Customer Specification Requirements.**

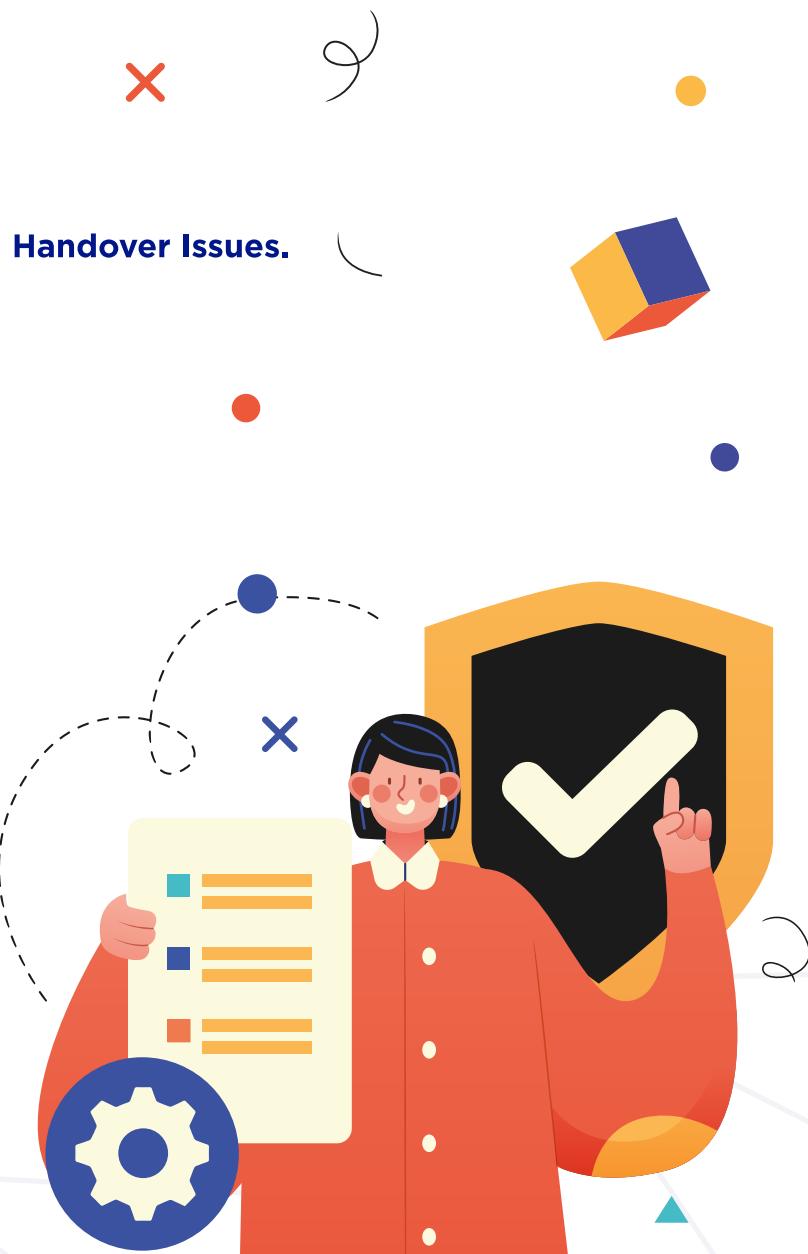
**Requested Skills:**

- Software Development.

**Diploma:**

- Industrial Engineering & Software Development.

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# IP DEPARTMENT



# IP Department

## 1<sup>st</sup> Topic:

**Develop a Non-destructive Test to Detect the Welded Part of Insulated Wire Based on Foucault's Current.**

**Requested Skills:**

- Electronics/ Electrotechnics,
- Material Science,
- Automation.

**Diploma:**

- Engineering/ Master's Degree in Electronics.

## 2<sup>nd</sup> Topic:

**Develop a Control System for Water Treatment (Softener-osmoser) with the Appropriate Alert Information.**

**Requested Skills:**

- Software Development,
- Electrical Knowledge.

**Diploma:**

- Master's/ Industrial Engineering & Software Development.

**Apply at: [application.cofmd@coficab.com](mailto:application.cofmd@coficab.com)**

# IP Department

## 3rd Topic:

**Develop a Management System for Tooling (Stock, Consumption Follow up, Acquisition Prevision).**

### Requested Skills:

- Software Development,
- Supply Chain knowledge.

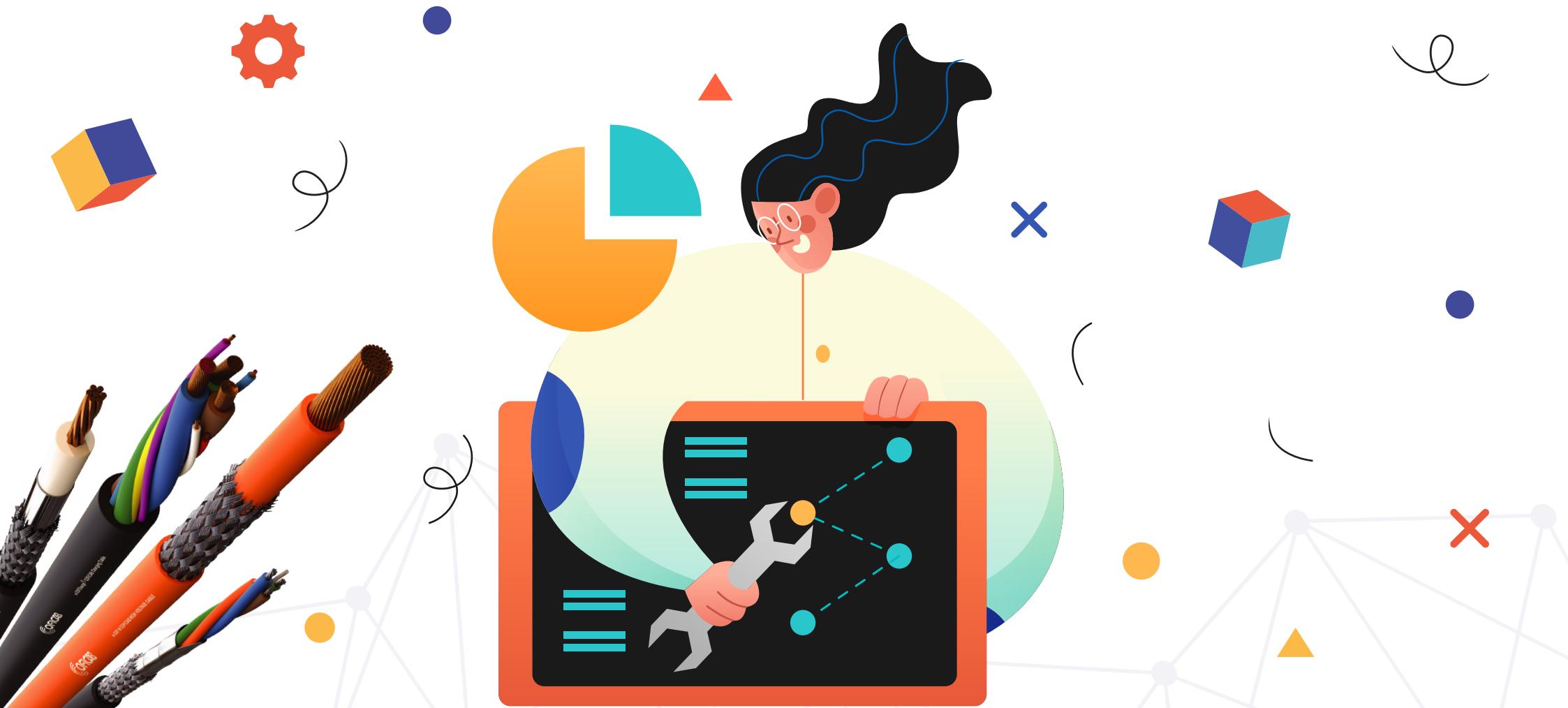
### Diploma:

- Master's Degree/ Industrial Engineering/ IT.

**Apply at: [application.cofmd@coficab.com](mailto:application.cofmd@coficab.com)**



# MAINTENANCE DEPARTMENT



# Maintenance Department

## 1<sup>st</sup> Topic:

**S.M.E.D : Increase of Production Capacity and Equipments Availability by Optimizing Preventive Maintenance Operations.**

**Requested Skills:**

- Maintenance Management.

**Diploma:**

- Master's Degree/ Industrial Engineering.

## 2<sup>nd</sup> Topic:

**Develop an Automated Control System for a Cooling System Based on Plate Heat Exchangers of Wire Drawing Machine.**

**Requested Skills:**

- Automation,
- Industrial Computing.

**Diploma:**

- Bachelor's Degree in Maintenance/ IP.

**Apply at: [application.cofmd@coficab.com](mailto:application.cofmd@coficab.com)**



# Maintenance Department

## 3rd Topic:

**Optimizing Cooling/Heating and Water Treatment Plant.**

**Requested Skills:**

- Energy Knowledge,
- Chemical & Industrial Process.

**Diploma:**

- Master's Degree/ Energy/ Industrial Engineering.

## 4th Topic:

**Develop a Mixed Automated Control System to Optimize Energy Consumption for Lighting.**

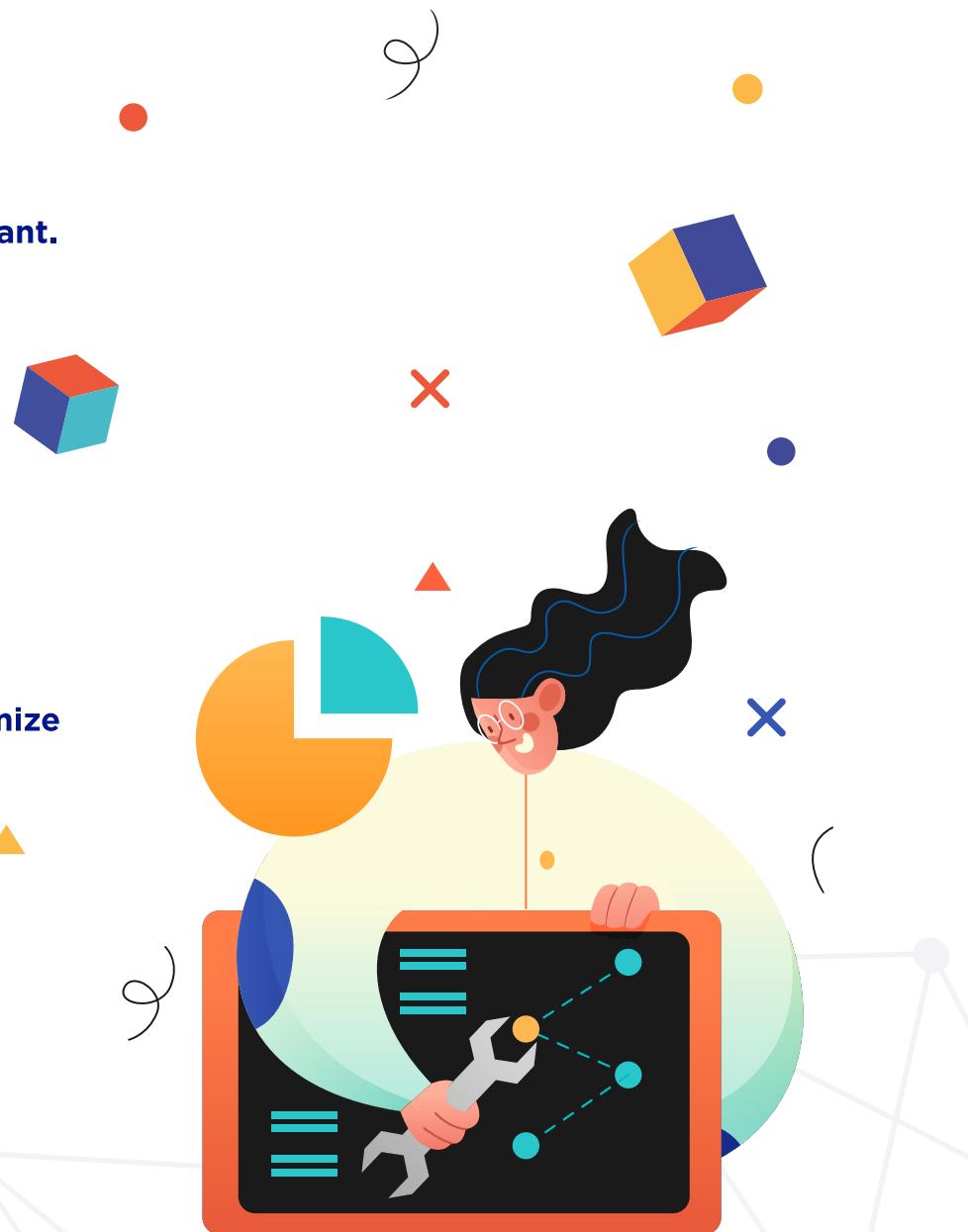
**Requested Skills:**

- Energy, Electrical Knowledge.

**Diploma:**

- Master's Degree/ Energy/ Electrical Engineering.

**Apply at: [application.cofmd@coficab.com](mailto:application.cofmd@coficab.com)**



# PRODUCTION EXTRUSION **DEPARTMENT**



# Production Extrusion Department

## 1<sup>st</sup> Topic:

**Develop an Application for an Optimized List of Extrusion Length According to the Bunching Length.**

**Requested Skills:**

- IT & Software Development.

**Diploma:**

- Bachelor's/ Master's Degree in Software Development.

## 2<sup>nd</sup> Topic:

**Develop a Measurement KPI's System per Operator.**

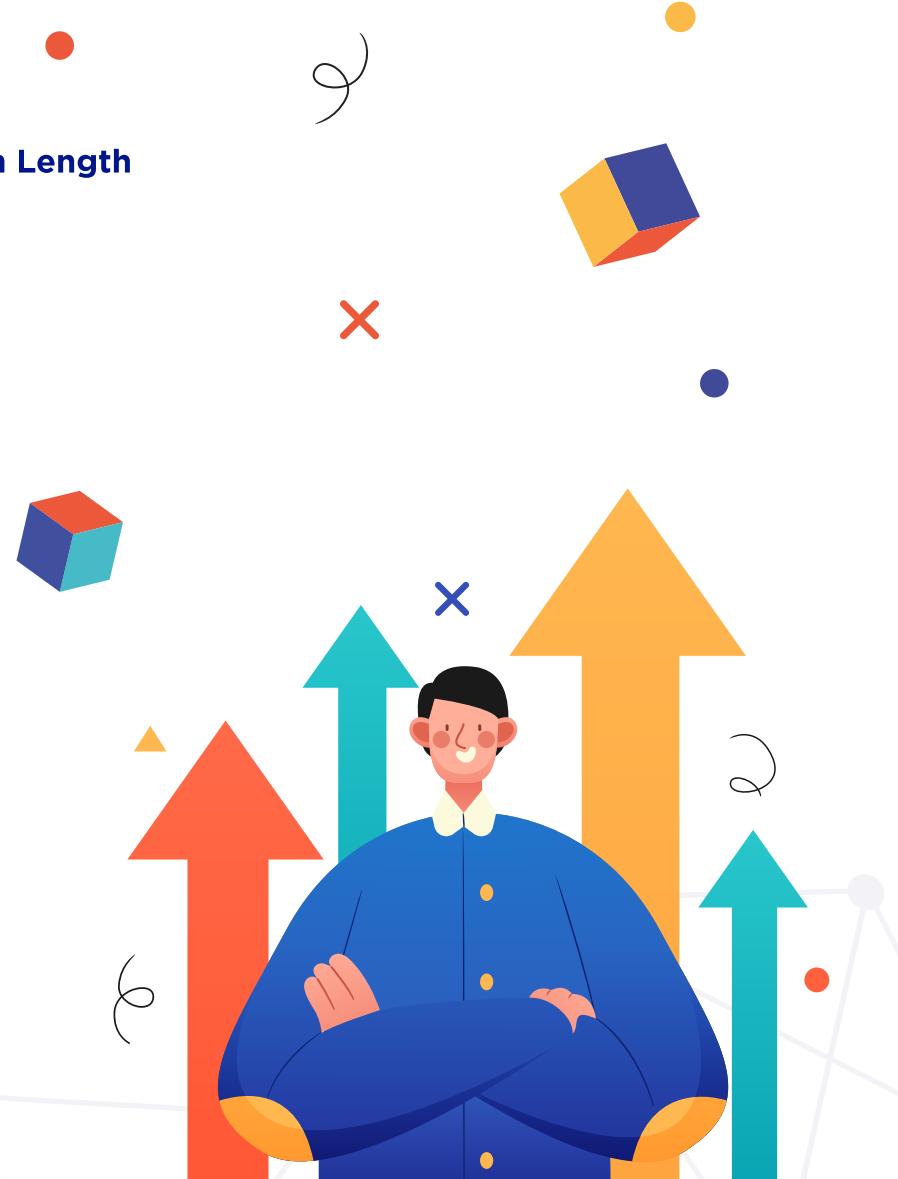
**Requested Skills:**

- Software development,
- Process Optimization,
- Business Intelligence.

**Diploma:**

- Bachelor's/ Master's Degree in Industrial/ IT.

**Apply at: [application.cofmd@coficab.com](mailto:application.cofmd@coficab.com)**



# Production Extrusion Department

**3<sup>rd</sup>** Topic:

**Design a Guiding System to be Installed before Extrusion Crosshead for the Operator to Adjust thoroughly the Entry Position of the Wire (Horizontally and Vertically).**

**Requested Skills:**

- Mechanical Design,
- CAD Software knowledge.

**Diploma:**

- Bachelor's/ Master's Degree in Mechanics.

**Apply at: [application.cofmd@coficab.com](mailto:application.cofmd@coficab.com)**



# HOW TO APPLY

Are You Powered By PASSION?  
Send your resume to the addresses:

**[application.coftn@coficab.com](mailto:application.coftn@coficab.com)**  
**[application.cofmd@coficab.com](mailto:application.cofmd@coficab.com)**

## Our addresses

### COFICAB Tunis

Sedjoumi, Route de Fouchana  
1095 Tunis - TUNISIA  
(+216) 71 156 000

### COFICAB Medjez El Bab

Z.I. III, Hinchir Boumouss 9070  
Medjez el Bab - Tunisia  
(+216) 71 156 000

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