

QUECTEL

Build a Smarter World



Quectel Wireless Solutions

Company Overview and Internship Program

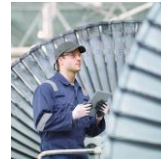
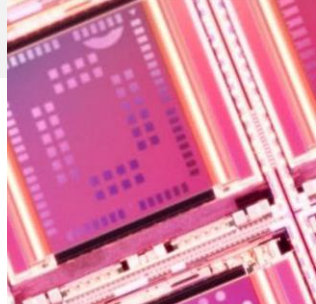
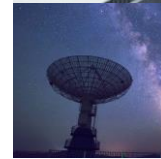
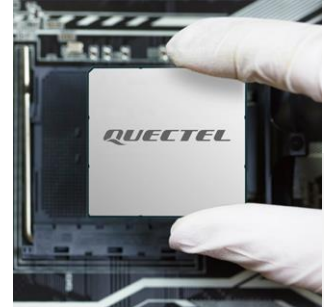
Build a Smarter World



Content

Company Overview
Belgrade R&D Center
Internship Program
Questions & Answers

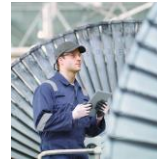
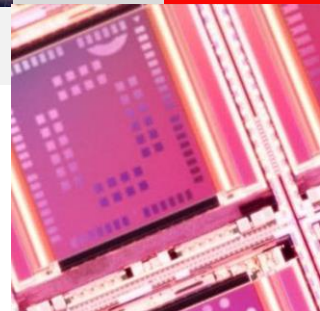
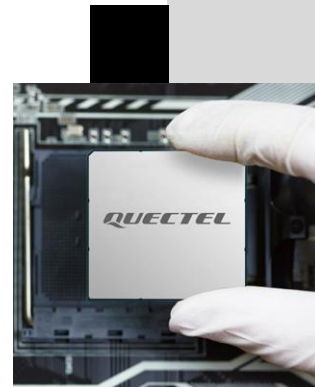
Build a Smarter World





Company Overview

Build a Smarter World



Overview of Quectel as a Company



Founded in
October 2010

8 R&D Centers
globally:
*Shanghai, Hefei,
Foshan, Guilin,
Wuhan, Belgrade,
Vancouver and
Penang*

Listed on the
Shanghai Stock
Exchange: *Stock
Code 603236.SS*

50+ sales offices,
90+ distributors
and 6000+
employees
worldwide

Monthly
production
capacity over
22 M pcs

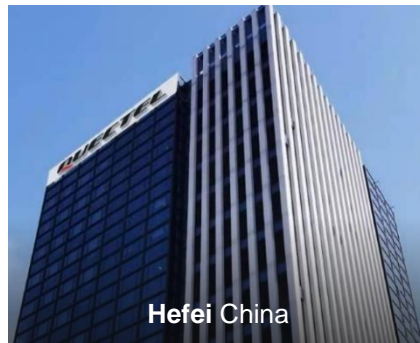
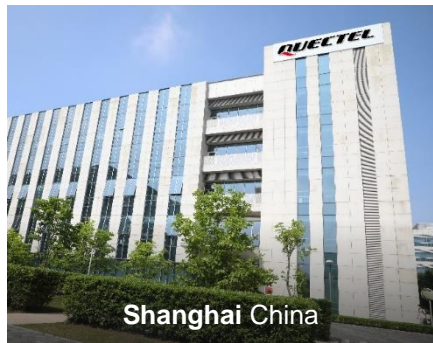
More than 7000
customers
worldwide

\$2,2 Million
turnover
(FY 2022)



Quectel's passion for a smarter world drives us to accelerate IoT innovation. A highly customer-centric organization, we are a global IoT solutions provider backed by outstanding support and services.

Global R&D Centers



Headquarters and Global Sales Offices



Europe

Czech Republic: Prague
Denmark: Copenhagen
France: Nice/Paris
Germany: Augsburg/Berlin/Hannover/Munich
Ireland: Navan
Italy: Casatenovo/Milan

Poland: Gdynia/Warsaw/Wroclaw
Serbia: Belgrade
Slovenia: Ljubljana
Spain: Barcelona
Sweden: Sollentuna/Stockholm

Switzerland: Zurich
The Netherlands: Eindhoven
Turkey: Istanbul
UK: Birmingham/London/
Manchester/Oxford

North America

Canada:
Mississauga/Toronto, ON
Vancouver, B.C

United States:
Alpharetta, GA
Chicago, IL
Houston/Round Rock/San Marcos, TX
Irvine/Orange County/San Diego/
Scotts Valley/Silicon Valley, CA



China
Shanghai Headquarters

Israel / Africa

Israel: Tel Aviv
South Africa:
Gauteng /Johannesburg

Asia Pacific

Australia: Melbourne/Sydney
India: Bangalore/Delhi/Hyderabad/Mumbai
Indonesia: Bandung/Jakarta
Japan: Tokyo
Korea: Seoul
Malaysia: Penang

Pakistan: Lahore
Philippines: Manila/Pasay City
Singapore
Thailand: Bangkok/Samutprakarn
Vietnam: Hanoi/HoChiMinh City

Latin America

Argentina: Buenos Aires
Brazil: Sao Paulo
Mexico: Mexico City /
Queretaro

Our Values



Focus

- We are laser focused on innovation.
- We provide customers with high quality products and services developed with a spirit of craftsmanship.



Innovation

- Innovation is the core of competitiveness, and all innovation should focus on customers' needs.
- Innovation should not be limited to products and technologies, but also to services and management.



Striving

- The success of the company depends on the continuous hard work and development of all our employees.
- The company and employees can only be valued by customers if we offer continuous progress and innovation.



Vigilant

- The company operates in a fiercely competitive environment – all employees work with a sense of urgency.
- If a company does not remain dynamic and competitive, the end result will be failure and bankruptcy. Historically 80% of module companies have gone out of business or been acquired.
- All employees should be highly alert to industry changes and market competition and respond quickly to maintain the competitive advantage of the company.
- Our management team proactively monitors market conditions so we can be agile and quickly mitigate any possible risks



Win-win

- Quectel staff rely on each other and work in cooperation with customers and partners.
- Quectel fosters a sharing environment where development achievements are shared, enabling the company and its employees to progress together.



Open

- Quectel is dedicated to developing the global IoT market and serving global customers.
- Quectel always maintains an open and sharing mentality and is proactive in adapting to the trend of globalization and responding to greater challenges.



Cellular Modules

5G/4G/3G/2G
NB-IoT/Cat M
Automotive Modules
Smart Modules



Wi-Fi & Bluetooth Modules

Wi-Fi 6E/6/5/4
BT 5.x
Automotive Wi-Fi/BT



GNSS Modules

Single frequency localization
Multiple frequency localization
High precision positioning
Fusion positioning
Timing



Antenna

Quectel modules are optimized/certified for our embedded and external antenna portfolio

5G/4G/3G/2G
LPWA
Wi-Fi & BT
GNSS
V2X



Services

LBS Location Based Services
OTA Upgrade Services
Connectivity-as-a-Service

Rich product portfolio, providing the full solution

Quectel's products are embedded to various products/industries



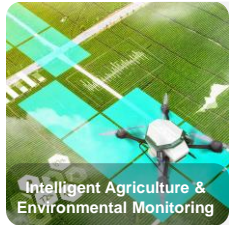
- Vehicle Tracking
- Asset Tracking
- Ship Tracking
- Fleet Management
- UBI Auto Insurance
- IoV
- CVI
- OBD
- DVR



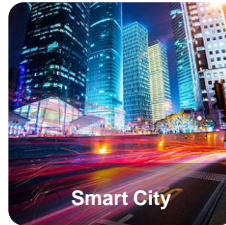
- Water Meters
- Thermal Meters
- Wind Generators
- Charging Piles
- Solar Power Generation
- Ammeters
- Gas Meters
- Smart Grids



- Wireless POS
- Cash Registers
- ATMs
- Vending Machines
- Top-up Machines



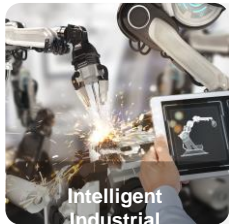
- Food Traceability
- Farmland Monitoring
- Farm Management
- Meteorological Stations
- Wildlife Protection
- Farm Irrigation
- Environmental Monitoring



- Sharing Economy
- Elevator Monitoring
- Digital Indicators
- Advertising Boards
- Parking Meters
- Toll Collection Systems
- LED Landscape Lighting Controls
- Street Lighting
- Traffic Lights
- Smart Parking
- Smart Bins



- DTUs
- Customers Routers
- Industrial Routers
- VOIP
- Server
- Wi-Fi Hotspots



- Industrial PCs
- Industrial Computers
- Pipeline Monitoring
- Indoor Air Detection
- Industrial PDAs/Scanners
- Industrial Refrigeration
- Water Valves/Pump Controls
- UAV
- Robots
- Flowmeters



- Personal Trackers
- Home Automation
- Elderly Monitoring
- Game Machines
- Patient Monitoring
- Blood Pressure Meters
- Remote Medical Equipment
- Pet Trackers
- Wearables
- Glucometers
- Mobile PCs



- Alarms
- Intrusion Detectors
- Smoke Detectors
- Gas Detectors
- Motion Sensors
- Asset Protection

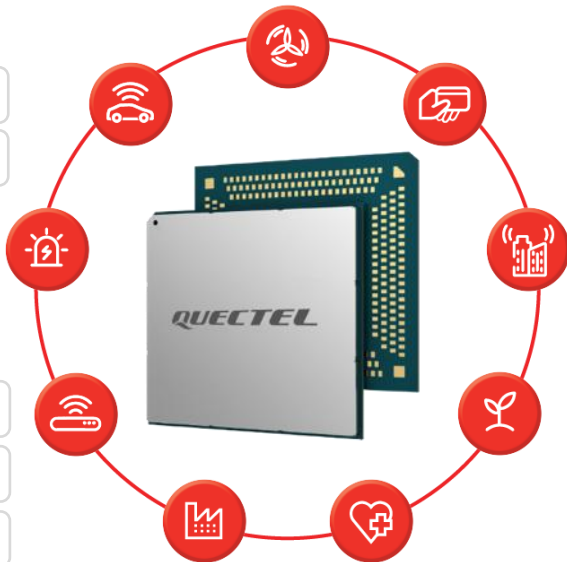
Enabling the Ecosystem with a Wide Variety of Quectel Modules



Chipset



Cloud & Partners



Carriers



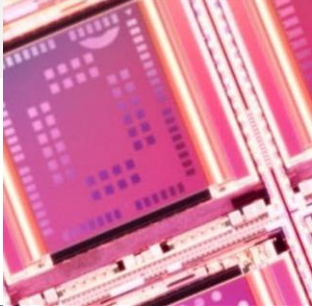
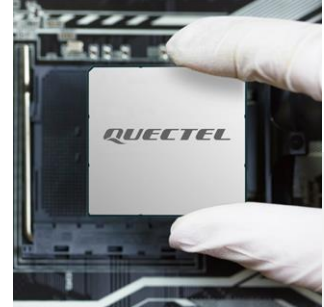
Certifications





Quectel Belgrade R&D Center

Build a Smarter World



Belgrade R&D Center Facts



200+ sqm

Lab space

1.6K sqm

Office space

80+

R&D engineers

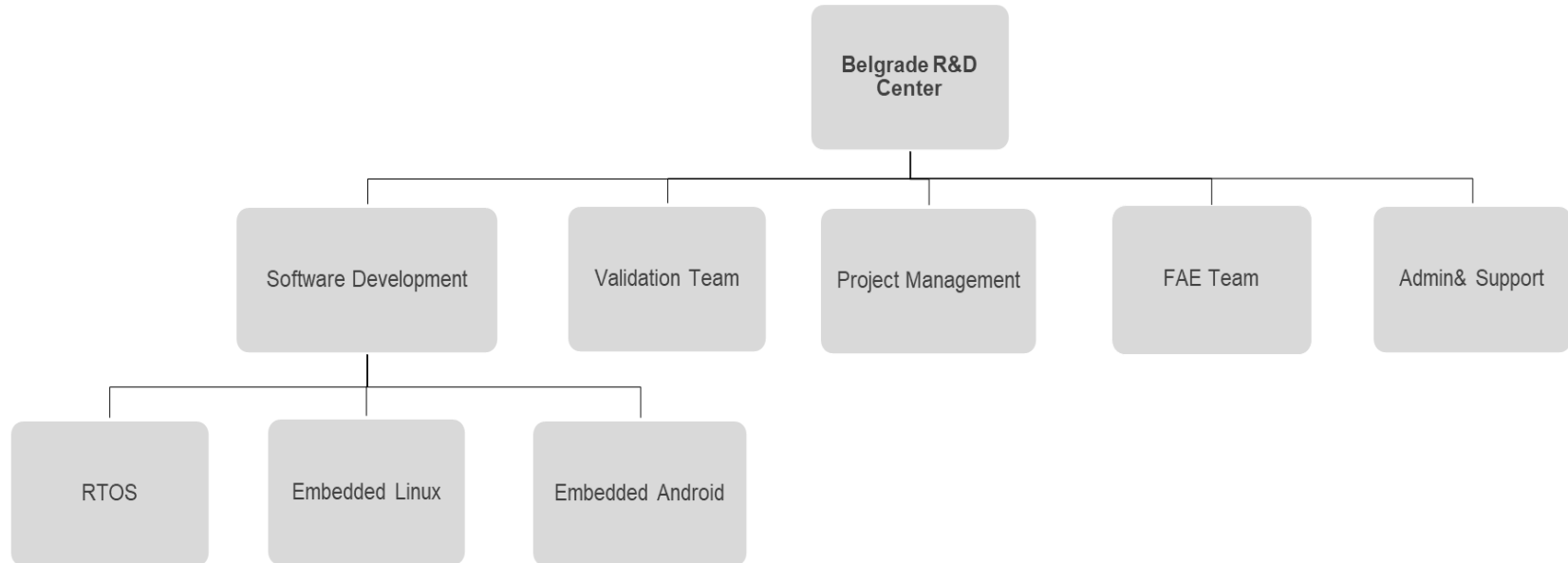
1st Quectel's

R&D center in
Europe

3M EUR

Lab instrument
capabilities

How We are Organized in Belgrade



State of Art Equipment to Work on



Anechoic chamber



eNodeB/gNodeB simulators



GNSS signal emulator



**Communication testers
2G/3G/4G/BT/WLAN**



5G



Temperature chamber



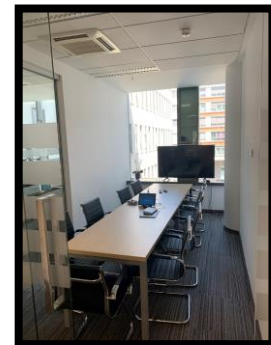
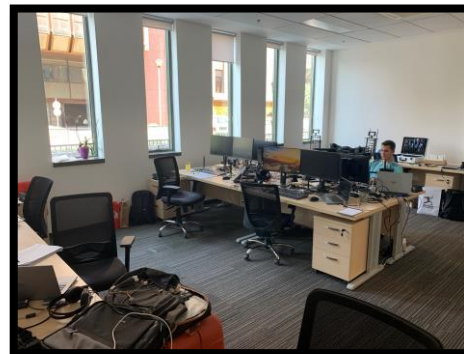
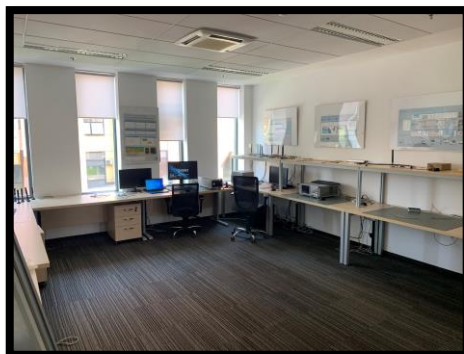
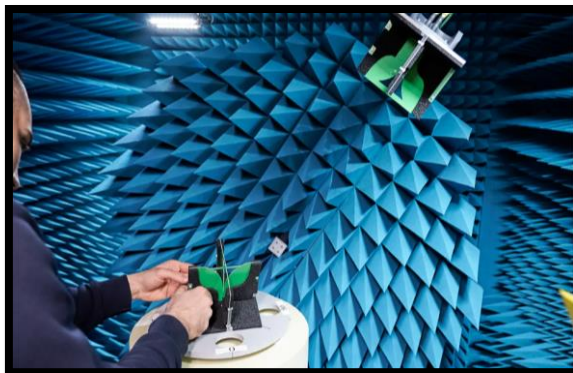
Vector network analyzers



DC power analyzers



Working Environment Gallery



Why You Should Join Quectel



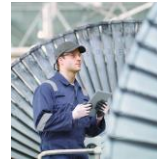
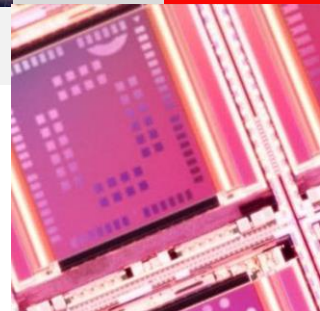
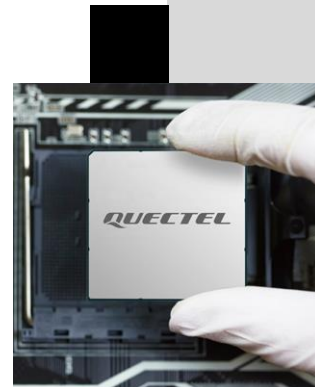
- ✓ State of art equipment
- ✓ International company
- ✓ Global leader
- ✓ Local and global expansion
- ✓ Strong clients
- ✓ Training center
- ✓ Internal mobility
- ✓ Attending international fairs and congresses
- ✓ Team events
- ✓ Team atmosphere
- ✓ Flexible working time
- ✓ Fit and healthy (sport benefits and health insurance)





Cooperation with Elektronski fakultet Niš

Build a Smarter World



Cooperation Opportunities

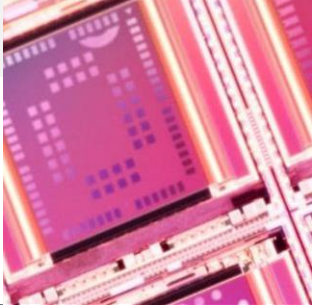
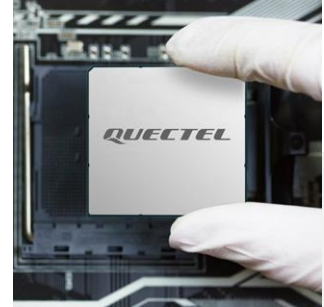


- Professors can use Qectel lab for their scientific work
- Professors can use Qectel lab to hold workshops to students
- Qectel modules to be used for practical work on faculties
- Qectel modules to be used for graduate, master and PhD exams
- Qectel experts presenting on faculties' workshops and tribunes
- Donation of equipment
- “Open Day” in Qectel
- Paid internship
- Other



Internship Program

Build a Smarter World



The background of the advertisement is a photograph of an office environment. In the foreground, a woman with long dark hair is seated at a desk, looking towards the right. In front of her are two computer monitors; the one closer to her displays a 3D CAD model of a mechanical part. To her right, another person is seated at a desk, viewed from behind, working on a computer. In the background, two men in dark polo shirts are standing and looking at a large sheet of paper, possibly a blueprint or technical drawing. Large windows with a grid pattern are visible in the background, letting in bright light.

3 Months of Paid Internship

Designed to provide the best possible **start of careers.**

Gives opportunity to learn by doing and find out what you can do if you have the right **support.**

Hiring interns across **all our business areas**, depending on your field.

An **individual approach** to students

Possibility to **work for Quectel** in the future



Who Are We Looking for?

Curious minds, open for new ideas, learning from their peers and excited to try something new

See the value and understand the potential of technology – so it can be used to building a smarter world with outstanding contributions for the communities

Challenge yourself and find out what you can do

6 Different Programs



Program duration: 3 months

Start date of the program: flexible, depending on the student's availability

Hours per day: 4-8 hours, depending on the student's availability

Requirements: 3rd year of studies (or higher)

Department / major: Any

SW Engineer
Automotive
(embedded Linux)

SW Engineer
LPWA (RTOS)

SW Engineer
Smart Module
(embedded
Linux and
Android)

Field Application
Engineer (FAE)

RF Tester

SW Tester

Training example:

- ✓ 70% on-the-job learning
- ✓ 20% learning from your peers and mentors
- ✓ 10% learning through role-specific training

SW Engineer Internship Automotive



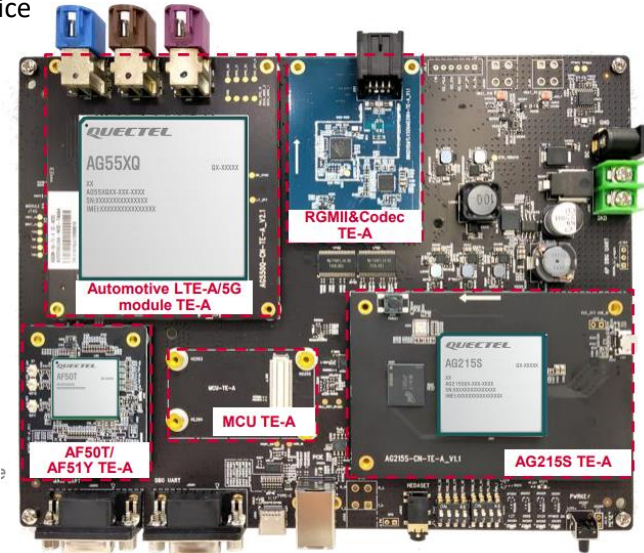
Internship Description

As an intern you will learn about embedded software development lifecycle, programming in C/C++ and debugging technics. You will work on embedded Linux based systems (user space, kernel, device driver development), gain knowledge of

- Hardware interfaces (I2C, SPI, UART, I2S, GPIO);
- Network protocols (TCP, UDP, MQTT, HTTP);
- Cross-compiling;
- Cmake;
- Version control systems (GitLab, Gerrit);
- Linux Administration and Linux commands;
- Developing AT commands and APIs;
- Working with the latest and most sophisticated equipment;
- Understanding basic concepts of cellular technologies 2G-5G;

Responsibilities

- Work on Yocto based systems, designing and developing cross-platform code in C/C++;
- Develop, maintain, customize, and improve modular and scalable embedded systems components;
- Work in cross-functional teams using Agile software development methods;
- Write unit tests and perform software verification and validation
- Working with young and dynamic environment with a lot of experience in embedded SW engineers.



SW Engineer Internship LPWA



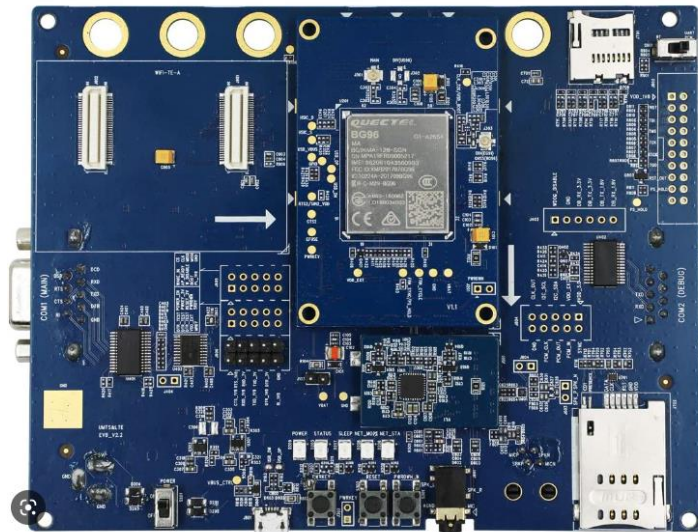
Internship Description

As an intern you will learn about embedded software development lifecycle, programming in C and debugging technics. You will work on RTOS based systems and gain knowledge of

- Hardware interfaces (I2C, SPI, UART, I2S, GPIO);
- Network protocols (TCP, UDP, MQTT, HTTP);
- Cross-compiling;
- Building tools (Cmake, Make);
- Version control systems (GitLab, Gerrit);
- Developing AT commands and APIs;
- Working with the most sophisticated equipment;
- Understanding basic concepts of cellular technologies 2G-5G;

Responsibilities

- Work on RTOS based systems, designing and developing cross-platform code in C;
- Develop, maintain, customize, and improve modular and scalable embedded systems components;
- Work in cross-functional teams using Agile software development methods;
- Write unit tests and perform software verification and validation
- Working with young and dynamic environment with a lot of experience in embedded SW engineers.



SW Engineer Smart Module Internship



Internship Description

As an intern you will learn about Embedded Linux and Embedded Android development lifecycle, programming in C/C++ scripting and debugging technics. You will gain knowledge Linux and Linux commands, Linux Drivers, work on Android Open-Source Project and Android Application programming.

Responsibilities

- Work on developing driver for Linux and debugging (LCD, Camera, Battery, UART, SPI, I2C, GPIO, etc.)
- Configuration AOSP and HIDL/AIDL
- Work on Android application



Field Application Engineer (FAE) Internship



Internship Description

As an intern you will learn about Quectel's entire product portfolios, including 5G, LTE/LTE-A, UMTS/HSPA, GSM/GPRS and GNSS wireless technologies. Gain more experience in embedded product design or Firmware development in electronics, gain knowledge GSM/GPRS /EDGE / UMTS/LTE/TCP/IP/GPS specification/standards.

Responsibilities

- Work on providing technical support for Quectel's full product line, including wireless, LTE, UMTS/HSPA (+), GSM/GPRS and GNSS modules.
- Work on embedded software or embedded hardware customer support
- With our team participate in project analysis and troubleshooting, to solve technical problems

RF Tester Internship



Internship Description

As an intern you will learn to perform measurements of antenna parameters, but also to perform measurements of radio parameters of wireless modules. All these tests are performed in a full-anechoic chamber using state-of-the art VNAs, spectrum analyzers and base station simulators.

Responsibilities

- Measuring antenna parameters such as gain, radiation patterns and efficiency.
- Measuring the total radiated power of a wireless device.
- Measuring the total isotropic sensitivity of a wireless device.
- Calibrating the anechoic chamber.
- Verification of the anechoic chamber.
- Drafting reports.
- Working with antenna engineers.

SW Test Internship



Internship Description

As an intern you will learn to perform functional and performance tests of wireless modules, which includes cellular modules, WLAN modules, Bluetooth modules, etc. You will also learn to use state-of-the art laboratory equipment such as base station simulators, communication testers, power analyzers, etc.

Responsibilities

- Testing the network connectivity using either an MNO's network, or base station simulators.
- Testing internet protocols, such as HTTP, TCP, FTP, etc.
- Testing bus protocols, such as SPI, I2C, UART, etc.
- Measuring the power consumption of modules in various modes of operation.
- Working with test automation engineers.
- Working with embedded SW engineers.

How to Apply



CV and the program(s) of interest should be sent at:

Email address: career@quectel.com

Email subject/title: Internship



Thank You

Build a Smarter World

