

Opportunities for Students

NOKIA Romania - Summer Practice Projects 2018

Are you a motivated, hard-working and curious student?
Do you want to put your knowledge to work, add new skills and contribute to something big?

If the answer to these questions is YES, then NOKIA is the right place for you!

Send your CV at recrutare@nokia.com, together with your top 2 project choices by **May 6th**.

Summer Internship Project Title	Short Description of the project	Technical Requirements to complete the task	Department	Details (number of students, hours/day, period available)
2G/3G/4G Entity Integration Testing	GSM / WCDMA / LTE key concepts, architecture & radio principles HW equipment installation and commissioning How to deal with SW bugs and customer issues? TEST principles & way of work (types of tests, automation, tools...) Corrections and patch tests	Telecom basic/automation basic/Linux basic	Mobile Networks	Number of students: 2-4 Hours/day: 6-8 Period: TBD
RF Sharing Principles in Newest Radio Technologies	Testing the RF Sharing applied to latest technologies in Nokia "oven": 4G, 5G, Cloud Radio.	Telecom basic/automation basic/Linux basic	Mobile Networks	Number of students: 10-12 Hours/day: 4-6 Period: July-September
Introduction to RNC Troubleshooting	The main topic of the internship is to allow the student to understand the mystery of the cloud RNC RAN troubleshooting both SW and HW and to get familiar with the traces and tools used in the field.	Know basic WCDMA network elements & architecture	Mobile Networks	Number of students: 1 Hours/day: 4-8 Period: July/August
Introduction to CloudRAN	The main topic of the internship is to allow the student to understand the mystery of the TelcoCloud networks. The topics will be to see and understand the performance in a TelcoCloud Network, focusing on KPI monitoring and troubleshooting of cloudBTS, cloud BSC and/or cloud RNC.	Know basic 2G, 3G or 4G network elements and architecture. Understanding a RAT algorithm will help.	Mobile Networks	Number of students: 1 Hours/day: 4-8 Period: July/August

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Radio Network Performance evaluation over SingleRAN product on Top10 Europe Nokia mobile customers	The purpose of this project is to engage one or two students from Faculty of Electronics and Telecommunications. The student/s will join the Customer Support Network Performance team for a delimited period and in this period, they will gain an overview about wireless telecommunications assessing the radio KPIs in the live networks. A mentor will be assigned to them and he will be final responsible of their evolution and progress. In this way, the students will face the corporate medium, will be part of a team and see what are the requirements expected to them. Also, the company gets in touch with the University in order to form a strong relation of collaboration.	Preferably 3rd year of study at Electronics and Telecommunications, Proficiency with Microsoft Office Package, Basic knowledge of Wireless Telecommunications Architecture and Technologies, Foreign Language: strong command of English Other requirements: Willingness to learn and to gain technical skills, teamwork, attention to details, communication skills	Mobile Networks	Number of students: 1 Hours/day: 4-6 Period: August/September
Continuous Build Regression	100% Automated Regression Tests for SBTS product (2G,3G,4G) - based on Linux Virtual Machines with Robot Framework and Python	Basic Linux commands / basic telecom knowledge	Mobile Networks	Number of students: 2 Hours/day: 4
Build Acceptance Testing	Basic Tests done on new builds	Telecom basic/automation basic/Linux basic	Mobile Networks	Number of students: 1 Hours/day: 4
New Feature Testing	Various tests for new telecom SRAN features	Telecom basic/automation basic/Linux basic	Mobile Networks	Number of students: 5 Hours/day: 4
R&D Tools development	R&D Tools development (join Scrum teams, understand the process of working and participate to software development)	Python or JavaScript or Java	Mobile Networks	Number of students: 4 Hours/day: 4-8 Period: July-September
Increasing code coverage on SOAM Nokia product by contributing to pytest activity	Practice by writing new subsystem tests in Python language, running on a x86 Linux system, in order to increase the coverage of the complex SOAM Nokia product code (C++ source code)	Python, C++, Linux	Mobile Networks	Number of students: 2 Hours/day: 4-6 Period: 1 month
Study the trend of reported software faults in pre-investigation community	WE WISH to detect critical areas and burning features under focus of pre-investigation, try to analyze emotional trends in pre-investigation mailing list. Thanks to huge amount of training data and relatively correlation with faulty cases assigned area, we can train/online-extend network. Result is sliding time window associated with rank of text vectors (topics) which can guide attention of fault coordinators. IN PRACTICE it could mean: study, design and demo for such a system.	Mathematics, deep learning and neural networks, statistics; associated programming languages	Mobile Networks	Number of students: 2 Hours/day: 4-6 Period: 1-2 months

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GSM/UMTS/LTE sites integration (multivendor)	Remote integration of GSM/UMTS/LTE sites integration (multivendor).	At least the understanding of GSM/UMTS/LTE concepts French language	Global Services	Number of students: 3 Hours/day: 6
Fixed Core & Access Network management	Monitoring the operational network, providing diagnosis of the faults in the network, coordinating the field teams to restore the services within agreed SLA's. Internship program provides high level technical experience on Fixed Core and Access networks.	Basic Telecom knowledge, Signaling protocols, TCP/IP, SDH & TDM basic overview	Global Services	Number of students: 11 Hours/day: 6
GSM/UMTS/LTE sites integration (multivendor)	Remote integration of GSM/UMTS/LTE sites integration (multivendor).	Understanding of GSM/UMTS/LTE concepts, French language	Global Services	Number of students: 3 Hours/ day: 6
Nokia 2G, 3G, 4G Network Monitoring and Fault Management	Monitoring the operational network, providing diagnosis of the faults in the network, coordinating the field teams to restore the services within agreed SLA's. Internship program provides high level technical experience on Nokia RAN Networks.	Basic Knowledge of mobile networks; 2G/3G/4G Network Protocols; Understanding of: TMDA/FMDA/WCDMA/ Signal Processing	Global Services	Number of students: 2 Hours/day: 6
Multivendor Microwave Network Monitoring and Fault Management	Monitoring the operational network, providing diagnosis of the faults in the network, coordinating the field teams to restore the services within agreed SLA's. Internship program provides high level technical experience on Multivendor Microwave equipment.	Basic Knowledge of transmission networks; Understanding of microwave propagation and application	Global Services	Number of students: 1 Hours/day: 6
Remote coordination of telecom network optimization and renewal project	Request, approve and coordinate network changes and site integration in the telecom environment. Introduction in Change Management process and follow up on project milestones.	Basic Telecom Knowledge, Communication, Analytical thinking.	Global Services	Number of students: 4 Hours/day: 6
Coordination and Communication through the entire lifecycle of a Major Outage in the telecom network	Control and coordinate teams involved in resolution of network outage, Incident Management, Outage Management, SLA management, Technical Network overview.	Basic Telecom, Communication & Negotiation skills, English mandatory, German is a plus	Global Services	Number of students: 4 Hours/day: 6
Site Design Engineering	Preparation and validation of site solution documentation pre and post swap of radio SRAN boxes for Orange France project. Remote video support for site surveys.	Basic radio know-how (2G/3G/4G) A2 French level preferred	Global Services	Number of students: 2 Hours/day: 4-6 Period: 2 months
Radio Network Integration	Remote integration/swap activities. Remote support for field technicians.	Basic radio know-how (2G/3G/4G) A2 French level preferred	Global Services	Number of students: 2 Hours/day: 4-6 Period: 2 months

Summer Internship Project Title	Short Description of the project	Technical Requirements to complete the task	Department	Details (number of students, hours/day, period available)
Introduction on pre-sales Service SSM activity	The main topic of the internship is to allow the student to understand the mystery of the pre-sales activity. The topics will be to understand how to build a service solution, how to optimize cost and maximize effectiveness and efficiency in winning new customer contracts.	Preferably 3rd year of study at Electronics and Telecommunications. Basic understanding of telecom technology	Center of Competence	Number of students: 2 Hours/day: 6
Introduction to Pre-Sales Product SSM activity	The topic of the Project is built around the pre-sales activity and its understanding when it comes to selling Products. The Project will include context understanding when it comes to a customer, how a business case is built up, how this business aligns with the market, how an offer is built up and what one of the most important activity of a Pre-Sales engineer is: customer interaction. All of this to facilitate winning.	Preferably 3rd year of study at Electronics and Telecommunications. Basic understanding of telecom technology	Center of Competence	Number of students: 2-3 Hours/day: 6
Introduction to Pre-Sales Service Product Management activity	The topic of the Project is to develop technical skills for Pre-Sales Service Product Managers. The Project will include competence about how to build competencies on an opportunity, cost definition, services scope for a case related to Global Services (Care, or Network Integration or Network Planning and Optimization). Product will be related to 4G or 5G cases, depending on situation.	Preferably 3rd year of study at Electronics and Telecommunications. Basic understanding of telecom technology	Center of Competence	Number of students: 3 Hours/day: 6