

# OPPORTUNITIES FOR STUDENTS ALCATEL-LUCENT ROMANIA SUMMER INTERNSHIP PROJECTS 2015



Summer Internship Project Title	Short description of the project	Department	Details	Summer Internship Project Title	Short description of the project	Department	Details
Introduction to OSS	1. Using Corba for alarm management 2. Using shell scripts for alarm management	IP Platforms - OSS	4/6/8 hours/day, flexible period. <b>Seats available:2</b>	Comparative study of Alcatel-Lucent Radio Access technology 3G vs 4G	Compare 3G and 4G technology, equipment and tools.	Chief Operating Office- Remote Integration and Testing Center	4-6 hours/day Flexible period <b>Seats available: 1</b>
Practica DMP	Create a chat web-application using Java Servlet with a HTML + Ajax UI to allow chat between multiple users. Gain experience with: Java Servlet, Ajax, Java Webapp Containers (Tomcat), Maven.	IP Platforms - Motive	6 hours/day, 3 weeks (end of July, beginning of August) <b>Seats available:1</b>	Advanced Scripting for Telecom Tools	Create, develop and maintain Scripts.	Chief Operating Office-Remote Integration and Testing Center	4-6 hours/day Flexible period <b>Seats available: 1</b>
HDA : Test Automation	Help build a diverse test environment to ensure the rightful functionality of an application involving big data and create tests to run on it. You will experience working with technologies like Hadoop, Hive, Java and more.	IP Platforms - Motive	6 hours/day , July <b>Seats available:1</b>	4G RF Testing	Develop and coordinate RF testing in Alcatel-Lucent 4G networks.	Chief Operating Office- Remote Integration and Testing Center	4-6 hours/day Flexible period <b>Seats available:1</b>
MAS : Big Data Cluster Management with Puppet	Distributed installation of the Hadoop framework together with other related frameworks (Yarn, Spark, Zookeeper, Oozie, Hive, Pig etc) in order to store and process big amounts of data.	IP Platforms - Motive	6 hours/day , 3 weeks (end of July, beginning of August) <b>Seats available:1</b>	LTE Introduction	LTE basics and telecom principles.	Wireless	1 or 2 sessions of 3 weeks (6 / 8 hours/day) period: starting with the first week after summer session <b>Seats available: 10</b>
DMP : Big Data Cluster Monitoring with Zabbix	Learn about the integration of the Hadoop framework together with other related frameworks (Yarn, Spark, Zookeeper, Oozie, Hive, Pig etc) in a distributed environment, and use Zabbix to monitor their status and interaction over time.	IP Platforms - Motive	6 hours/day , 3 weeks (end of July, beginning of August) <b>Seats available:1</b>	Design ALU Wireless R&D internal tools	Design features for ALU wireless R&D internal tools(using PHP, JavaScript, MySQL, Ajax, JQuery)	Wireless	3 sessions of 3 weeks (6hours/day) period: tbc (proposal: ses1: W29-W31 ses2: W32-W34 ses3: W34-W36) <b>Seats available:4</b>
KMP : Performance Indicators Aggregator	Create a tool that will parse dstat statistics and create certain graphs.	IP Platforms - Motive	4 hours/day, July <b>Seats available:1</b>	LTE test "for dummies"	LTE (4G) key concepts, architecture & radio principles How to deal with SW bugs and customer issues? TEST team way of work (types of tests, automation, tools,...)	Wireless	1 session of 3 weeks (6 hours/day) period: TBC <b>Seats available: 2</b>
Critical resources monitoring tool (Linux)	The project consists in implementing some scripts that are monitoring the hardware resources of a Linux server: memory, hard disk space, processor; during running . There are used server process monitoring commands as top, prstat or iostat.	Applications PRBT & SRP Team	1 session of 3 weeks (6 / 8 hours/day) timeline: Aug'15 L. Timar, V. Dobrescu <b>Seats available: 1</b>	LTE DEV - Integrated Host Test Environment	Implement a tool in C/C++ to parse code traces. Install VMs and check performance.	Wireless	1 session of 3 weeks (6 hours/day) period: TBC - W29-W31 <b>Seats available: 1</b>
Trace mask for sensitive information	Implement a trace mask mechanism for sensitive information generated by PRBT applications.	Applications PRBT & SRP Team	1 session of 3 weeks (6 / 8 hours/day) timeline: Aug'15 L. Timar, V. Dobrescu <b>Seats available: 1</b>	Heterogeneous Networks in LTE	LTE principals, METRO and MACRO specificities and multilayer interactions.	Wireless	1 or 2 sessions of 3 weeks (6 / 8 hours/day) period: starting with the first week after summer session <b>Seats available: 8</b>
CORE network platform R4 platforms	The students will improve their technical and soft skills. They will gain knowledge of CORE network configuration ( MSC-S, MGW, GMSC, MUX) by assisting at theoretical and practical trainings.	Chief Operating Office-Managed Services	3 sessions of 3 weeks (6 / 8 hours/day, period: 01.07 - 31.08 <b>Seats available: 1</b>	Automatic comparison of Excel files	Within the new test framework based on Selenium (NPO-SON project), we need to be able to compare Excel files downloaded from the application to reference files.	Wireless	1 / 2 session of 3 weeks (6 / 8 hours/day) period: TBC <b>Seats available: 2</b>
2G,3G,4G engineering, implementation, integration	The students will gain knowledge in 2G,3G,4G architecture of multivendor networks, their configurations and integration.	Chief Operating Office-Managed Services	2 sessions of 4 weeks (4-6 hours /day), period: 01.07 - 31.08 <b>Seats available: 1</b>	Increasing the code coverage through unit tests	Part of the code base for the NPO-SON is not well enough covered by unit tests. We are aiming at increasing the code coverage by developing new JUnit tests for existing code.	Wireless	1 / 2 session of 3 weeks (6 / 8 hours/day) period: TBC <b>Seats available: 2</b>
Network architecture, Vc4 configuration	The students will gain knowledge in Alcatel Lucent 2G and 3G networks architecture, also on the configuration of SDH elements / equipments.	Chief Operating Office-Managed Services	2 sessions of 4 weeks (4-6 hours /day), period: 01.07 - 31.08 <b>Seats available: 1</b>	Increasing tests number of automatic functional tests campaign	Increasing the coverage of NPO SA Platform code through automated functional tests campaign using EasyTest framework for automatic tests, shell scripting and Jenkins tool for scheduling	Wireless	1 / 2 session of 3 weeks (6 / 8 hours/day) period: TBC <b>Seats available: 2</b>
Wireline network surveillance, alarm correlation and incident coordination	Monitoring and alarm surveillance of wireline network. Ticketing creation. Process and procedure follow and improvement. Organizational and coordination skills.	Chief Operating Office-Managed Services	1 session of 3 weeks (6 / 8 hours/day), period: 10.07 - 01.09 <b>Seats available: 6</b>	LTE eNB OAM	Migration tools: develop tool to automate implementation of migration rules	Wireless	(6/8 hours/day),3 weeks <b>Seats available:3</b>
Wireless network surveillance, alarm correlation and incident coordination	Monitoring and alarm surveillance of wireless network. Ticketing creation. Process and procedure follow and improvement. Organizational and coordination skills.	Chief Operating Office-Managed Services	2 session of 3 weeks (6 / 8 hours/day), period: 10.07 - 01.09 <b>Seats available: 6</b>	LTE eNB OAM	Test automation for feature team campaigns: extend automated test campaigns for PM and Software Management area	Wireless	(6/8 hours/day) 3 weeks <b>Seats available:2</b>
Network performance monitoring, alarms preventing activities	Monitoring performance of wireless network. Alarm prevention activity. Ticketing creation. Process and procedure follow and improvement.	Chief Operating Office- Managed Services	3 session of 3 weeks (6 / 8 hours/day), period: 10.07 - 01.09 <b>Seats available: 3</b>	Wireless Intranet Framework	An web based application will design and write, a framework which help us with the future updates on WLS web pages. Desired skills: Php, Mysql, Java Script, Ajax	Wireless	3 sessions of 3 weeks (6 hours/day) period: TBC <b>Seats available: 9</b>
				Telecom evolution and securing our knowledge	Evolution of Telecom networks, primary principles	Wireless	1 session of 3 weeks (6 hours/day) period: TBC <b>Seats available: 4</b>
				Server management	Instaling and managing a basic CMS for platform suport	Wireless	1 session of 3 weeks (6 hours/day) period: TBC <b>Seats available: 4</b>

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You want to show what you know, put your knowledge to work, add new skills and contribute to something big?

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Send your CV indicating your most wanted 3 options for Summer Practice Project from the list above at [practica.studenti@alcatel-lucent.com](mailto:practica.studenti@alcatel-lucent.com) until May 10.