Name	Bruno Santos	Group	Control and Data Acquisition
Function	Fellow with Master	Supervisor	António Pinto Rodrigues

1. Main research topics (repeat for every major topic)

Title	Software Development on ITER CODAC - Fast Plant System Controller project
Short description (max. 200 words)	MARTe framework will be integrated on ITER CODAC system. During the first integration phase MARTe will be integrated in CODAC SVN repository and deployed as an RPM package to allow self-installation. Samples will be available in MARTe environment to demonstrate the interface with EPICS and CSS tools. Moreover, MARTe framework will allow the production of "processed" signals and related EPICS PVs and will be possible to setup EPICS thresholds on processed and physical signals.
Specific targets	MARTe framework integration in CODAC Core System
Milestones	Integrate and test MARTe framework demo samples in CODAC system Study, design, implementation and test of script files to create MARTe RPM packages and provide self-installation in CODAC system Test and develop new features in connection between MARTe and EPICS Study and design of an application to create MARTe configuration files based on drag-and-drop objects. This application can be integrated in ITER CSS development tools.*
Timeline	First half of 2012. *Second half of 2012.

Title	Software Development on ITER CODAC - Fast Plant System Controller project
Short description (max. 200 words)	Develop the EPICS interface to device driver, based on ITER requirements. Collaborating in device driver developments.

Specific targets	ATCA IO Processor integration in CODAC Core System
Milestones	Study, design, implementation and testing EPICS device support for ATCA IO Processor board.
Timeline	First half of 2012

Title	Software Development on ITER Codac - Fast Plant System Controller project
Short description (max. 200 words)	Finish the developments in netCDF client that will collect data from boards and send to netCDF server. These developments will follow and depend on device driver implementation.
Specific targets	netCDF integration in ITER CODAC prototype
Milestones	Study of device driver functions Implement data streaming functions Finish and test netCDF client
Timeline	First half of 2012

Title	Software maintenance on COMPASS Slow Control subsystem
Short description (max. 200 words)	Support and maintenance of developed application to operate slow control subsystems
Specific targets	COMPASS Slow Control subsystem
Milestones	Vacuum operator interface Gas Injection operator interface Puffing operator interface

Timeline	During 2012

3. Expected output

	Objectives	Performance indicators
Papers, contributions to conferences, patents, reports, etc	Contribution to conference with publication of one paper in an international journal about the work in application to create MARTe configuration files based on drag-and-drop objects.	Acceptance of one paper in an international refereed journal or conference.