

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

Title	Data Acquisition System for Gamma camera Diagnostic Enhancement
Short description (max. 200 words)	Data validation during the C29/C30 JET campaigns
Specific targets	JET Gamma Camera Diagnostic (CsI(Tl) detectors
Milestones	Closing the DNGG project with the presentation of acquired data during the C29/C30 JET campaigns, with the developed system, on the Data Validation and Coordination Meeting
Timeline	Project closure 15/3/2012

Title	Development of a very high data acquisition AMC module based on the IPFN Data acquisition platform
Short description (max. 200 words)	Development of a 2(1) channels AMC board of 1.6 (3.2) GHz with 12 (or 10)- bit of resolution featuring a Virtex-6 FPGA for high performance processing and 2 GB of DDR3 memory.
Specific targets	1 - Control and Data Acquisition Subsystem for the Thomson Scattering diagnostic of the ITER tokamak; 2 - A collaboration to develop a data acquisition system dedicated to monitoring of secondary emission, with the aim of developing real-time tomography for the "European SPALATION source in Bilbao" ( <i>ESS-Bilbao</i> )
Milestones	AMC module: 1 - Design of its schematics; 2 - PCB, manufacturing; 3 - Design the firmware structure;
Timeline	Throughout 2012

### 3. Expected output

	Objectives	Performance indicators
Papers, contributions to conferences, patents, reports, etc	Participation in the 18 <sup>th</sup> Real-Time Conference, June 11-15, Berkeley, CA. Submission of one manuscript to the conference proceedings	Paper acceptance for publishing in the TNS journal.