

ANALISE CHECK LIST TEMA B

REVIEW CHECKLIST

The following items are suggested to be taken into consideration by the reviewers' panel:

Quality and Relevance of the Scientific Activity of the “Laboratório Associado”

Take into account the quality and quantity of relevant research relative to the number of doctorates in the “Laboratório Associado”.

- Publications in international research journals

Year	Journals	Conferences	PhD Theses
2004	4+	29 +	?
2003	9	22	5
2002	7	27	3
Total			

- International recognition of the research activity, namely the number of citations per publication, international awards, invited oral presentations in (plenary lectures; keynote lectures)

Citations: ~24 (source ISI web of science, may include papers prior to 2002) +

~55 source: IROS 2002, IROS 2003, ICRA 2002, ICRA 2003, ICRA 2004, ECCV2004, CVPR03, ICCV03.

- Breath and depth of ongoing and planned research activity; originality of the research work developed and its potential impact
- Current importance of the research themes; involvement in new, emerging areas of research

Modelling of biological systems, research on cognitive systems and involving neuroscientists, emotion-based robotics, hybrid systems, spacecraft formation guidance, navigation and control for planetary observation by multi-aperture interferometry-based telescopes.

- Multidisciplinarity and relevance for other research areas and/or technologies

MIRROR – *Mirror Neurons for Recognition*: Study the mirror neurons found in the macaque's brain for building imitation capabilities in robots.

SocRob/RoboCup: research involving Artificial Intelligence and Robotics aiming at innovative methodologies for cooperative multi-robot teams and multi-agent systems.

HROSS – *High Resolution Optical Satellite Sensor*: control of multi-aperture interferometry-based telescopes

- Involvement of young researchers and/or post-docs in the research activity

Post-doctoral fellows: 4 (average each year)
PhD students: ~17
MSc students: ~12

- Organization of scientific meetings and advanced training seminars

MED2002 – Mediterranean conference on Robotics and Automation
Omnivis03 – International Workshop on Omnidirectional Vision and Camera Networks.
Robotica2003- Portuguese Robotics Open
RoboCup2004
5th IFAC/EURON Symposium on Intelligent Autonomous Vehicles (IAV04)
PETS04 – ECCV Workshop on Performance analysis and Tracking in computer Vision.

Organization and Scientific Environment

- Adequacy of unit organization and leadership
- Culture of creativity and opportunity/encouragement of younger researchers initiative

Yes indeed.

- Share of common equipment, facilities and resources between different groups inside the “Laboratório Associado”

Facilities are shared within the *Laboratorio Associado* and there are projects involving various teams. Examples the Rescue project (mobile robotics, vision, intelligent control) and CAVIAR (cognitive vision systems for surveillance)

- Level of complementary activities and research interaction; number of common projects and co-supervision of graduate students

Several PhD and MSc thesis have co-supervision and researchers of different groups. There are projects involving members of different groups.

- Organization of seminars and group meetings; level of involvement/participation in those events

Weekly meetings Computer Vision Lab, SocRob project team, regular meetings of the Rescue project team and biannual workshops of the Intelligent Systems Lab

- Internal communication (instruments and level of participation)

Seminars.

Internationalisation

- Joint publications with foreign researchers

There are several publications with foreign researchers and the Laboratory is active in promoting the visit of international researchers. Check publications list.

- Participation in scientific and technological projects with foreign researchers

Several international Projects funded by the EU (CAVIAR, MIRROR), the RoboCup Federation (RoboCup2004) and the European Space Agency (FEMDS), as well as bilateral projects with Brasil, France and Spain.

- Involvement in international networks for higher education and research

Human Capital Mobility Network – CAMERA under the 5th Framework Programme.

EURON II – European Robotics Network – under the 6th Framework Programme

- Interaction with foreign researchers and/or research units abroad

Italy, Brasil, Germany, Sweden, UK, Czech Republic, Spain, Colombia, ...

- Ability to attract foreign post-docs and other researchers (invited or associated)

The associated laboratory pursues an effort to attract foreign students, researchers and post-docs, but funding delays have limited the success of such initiative.

Human Resources and Management

- Recruitment policy of the “Laboratório Associado”

- Balance between senior and young researchers

12 PhD researchers (8 staff, 4 post-docs), 29 students (PhD + MSc).

- Programmes for post-graduate students and advanced training of younger researchers

There are several courses at PhD level that are offered: e.g. Computer Vision, Discrete Event Dynamic Systems, estimation theory

- Adequacy of safety procedures

Technology Transfer / Diffusion and Valorisation of Results

- Involvement on the launching of “spin-off” enterprises

IdMind – Educational robotics and robot integration
Observit – computer vision and video surveillance systems
Reverse – computer vision and 3D reconstruction

- Innovative technological prototypes and patents

- Other knowledge and technology transfer activities

- Research contracts with enterprises

Projects in partnership with companies, notably the spin-offs.

- Services contracted and provided to external entities, public and private

Project review/evaluation for the European Union
 Delegate to the Aurora Program for the Exploration of the solar System by ESA.
 Membership of IFAC Committees

- Organization of activities aiming for diffusion of scientific culture (schools; public in general)

Robotica 2003 – Portuguese Robotics Open, held in Lisbon (about 400 participants from 90 teams from all over Portugal, and 75%+ participants from basic and secondary schools)

RoboCup2004 – held in Lisbon., the largest robotics event worldwide (1500+participants, 400+robots, 350+ teams)

“Ciência Viva” activities together with high school students.

Scientific occupation of young students during the summer holidays.

Strategic Planning and Long Term Perspectives

- Clear definition of objectives and “Mission Statement”
- Adequacy of objectives in a national and international context

Resources for the Research Activity

Write check marks where appropriate

Adequacy of resources for the research activity	Adequate	Not Adequate
Facilities	x	
Library		
journals	x	
books	x	
Equipment	x	
Technical support		x
Administrative support		x
Funding	X ???	

Comments and recommendations regarding the activities of the “Laboratório Associado”, research orientation and organization (*address strengths and weaknesses, distinguish sub-areas of activity if appropriate*)

