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## RESEARCH REACTOR CENTER: THE IEA-R1 HOME

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The IEA-R1 was the seed of the whole Nuclear and Energy Research Institute (IPEN), and, in the beginning, the buildings around this facility have housed all then-existing branches including operation and maintenance (O&M) of the IEA-R1 itself, the nuclear physics and radiochemistry divisions, etc. In the end of 70s these three sections were assembled into a single unit called COURP (Center of Operation and Utilization of Research Reactor), located in those same blocks. In 2000 this administrative structure gave origin to the Research Reactor Center (CRPq). This center governs the O&M of the IEA-R1 and its utilization. CRPq has two departments, one responsible for O&M, certain products and services related to neutron irradiations, whereas the other – for their utilization by researchers and for education. It has 59 employees, 10 Post-docs and around 90 students at different levels. In addition to the O&M, CRPq is involved into research and development work and offers services for society. All CRPq activities are monitored by integrate management system under ISO 9001 certification.

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## RESEARCH ACTIVITIES AT CRPq USING THE IEA-R1 NUCLEAR REACTOR

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After a short introduction on the origins of the research activities using the IEA-R1 nuclear reactor, the present organizational chart, and associated laboratories will be presented. These laboratories use the neutron beam facilities (diffractometry, imaging) or irradiate samples in the reactor core for neutron activation analysis, hyperfine interaction studies and radioactive source production and calibration. Some of the research and teaching activities of the research groups will also be displayed. Finally a compilation of research highlights in the form of recent papers will be presented, ranging from material characterization, environmental and health related studies to imaging industrial applications and archeological investigations.

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