Editor's Note

This, the fifth issue of the Instrumentation Viewpoint magazine, presents SARTI's research and technological activities during 2006.

This issue has proved much more difficult to produce than previous ones, above all after the publishing of the special issue which came after the Martech workshop in November 2005 , Our group has more things to explain and we are involved in a compromise, with ourselves and our readers. In this issue the magazine also has an electronic ISSN and some of the activities have been developed in collaboration with other research groups or universities such as the National University of Colombia Universidad or the Polytechnic University of Madrid. We encouraged and invited them to participate and this experience of sharing ideas that we are now initiating has allowed us to establish new collaboration links.

We do not pretend to offer an exhaustive presentation of the activities in this magazine but to outline our work environment. Some of the related activities are a short description of papers accepted and presented in different reputed congresses such as Instrumentation and Measurement and Industrial Electronics IEEE Societies

We would like to take this opportunity to invite you to present your collaborations in the next issue. Our goal is to make Instrumentation Viewpoint a medium where knowledge and research on instrumentation between colleagues can be shared and consequently become a window for all our activities

Best regards from your partner
Antoni Mànuel, PhD
Director of TDC SARTI

The NORIT project: the incidence of Norway lobster (*Nephrops norvegicus* L.) emergence activity rhythms on its population assessment

The Norway lobster, *Nephrops norvegicus* (L.) is a decapod crustacean inhabiting complex burrow systems in muddy continental shelves and slopes of the Atlantic and Mediterranean Europe. This species is fished intensively in the Mediterranean and is showing signs of overexploitation. Animals perform mergence under optimum light intensity whose timing varies at different intervals during a 24-h cycle. Commercial catches are used as indicators of animal behaviour in the field since they can be captured by trawl nets only when residing outside their burrows, (Fig. 1): crepuscular peaks of catches are accounted on upper and lower shelves (from 20 to 200 m) which are fully diurnal on the 400-410 m slope. Other factors such as size, the stage of sexual development, the presence of food or other conspecifics affect this emergence in a way which is still unknown today. In a earlier project (NERIT), rhythms in behaviour and physiology were measured only in adult males. An intuition yet to be confirmed,was made: the 24-h behavioural cycle of *Nephrops* is subdivided into three temporally distinct performances: in burrow locomotor activity, door keeping (wait at the burrow entrance) and excursion. The duration of each performance can be affected in a different manner by the previously quoted variables. The objective of the NORIT project is to measure