

Conferences > 2008 IEEE Instrumentation and...

# Distributed Instrumentation and Geographic Information System for Dolphins' Environment Assessment

Publisher: IEEE Cite This PDF

O. Postolache ; P. S. Girao ; G. Patricio ; J. Sacramento ; P. Macedo ; M. D. Pereira All Authors

2 Paper Citations

114 Full Text Views

Export to

Collabratec Alerts

Manage Content Alerts

Add to Citation Alerts

More Like This

Abstract

Document Sections

I. INTRODUCTION

II. DOLPHINS' ENVIRONMENT ASSESSMENT NETWORK (DoEAN)

III. DoEAN SOFTWARE

IV. EXPERIMENTAL RESULTS

V. CONCLUSION

Download PDF

**Abstract:**Dolphins' environment assessment is an activity able to contribute to the reduction of their mortality especially in regions with a reduced number of individuals such as ... **View more**

**Metadata**  
**Abstract:**  
Dolphins' environment assessment is an activity able to contribute to the reduction of their mortality especially in regions with a reduced number of individuals such as on the Sado Estuary area. Optimized field distributed instrumentation for water quality parameter measurement and underwater acoustic sound measurement provides important data that can be used for advanced data analysis of dolphins' environment. The purpose of the paper is to report the work developed in the areas of distributed instrumentation and geographic information systems for dolphins' environment assessment. The architecture of the overall system is based on primary monitoring nodes with embedded servers that receive data from multi-parameter water quality sensing units, from a GPS unit and from a hydrophone. The received data is wireless transmitted to a PC based base unit where an advanced processing block and the geographic information system (GIS) are implemented assuring on-line environment assessment through dynamic web pages. GIS's database capabilities assure that postprocessing tasks such as dolphin's sound recognition or water quality data mapping can be easily implemented.

**Published in:** 2008 IEEE Instrumentation and Measurement Technology Conference

**Date of Conference:** 12-15 May 2008 **INSPEC Accession Number:** 10059488

**Date Added to IEEE Xplore:** 20 June 2008 **DOI:** 10.1109/IMTC.2008.4547332

Authors

Figures

References

Citations

Keywords

Metrics

More Like This

More Like This

Construction and Implementation of Spatial Analysis Model Based on Geographic Information System (GIS)--A Case Study of Simulation for Urban Thermal Field 2008 International Conference on Computational Intelligence for Modelling Control & Automation Published: 2008

Voluntary geographic information systems with document-based NoSQL databases 2016 11th Iberian Conference on Information Systems and Technologies (CISTI) Published: 2016

Show More

ISBN Information:

Publisher: IEEE

Print ISSN: 1091-5281

Conference Location: Victoria, BC,  
Canada

Contents

I. INTRODUCTION

Distributed instrumentation for dolphins' environment assessment are able to contribute to a better understanding of the structure and the dynamics of dolphins' populations as well as to permit the realization of different correlations between the measured water quality parameter values, underwater acoustic signals and dolphin behavior. By using different types of devices and systems, including hydrophones, it is possible to collect and analyze the data (especially acoustic signals) associated with dolphins' behavior in a specified region and integrate it in a Geographic Information System [1].

Authors	▼
Figures	▼
References	▼
Citations	▼
Keywords	▼
Metrics	▼

IEEE Personal Account	Purchase Details	Profile Information	Need Help?	Follow
CHANGE USERNAME/PASSWORD	PAYMENT OPTIONS	COMMUNICATIONS PREFERENCES	US & CANADA: +1 800 678 4333	f in t
	VIEW PURCHASED DOCUMENTS	PROFESSION AND EDUCATION	WORLDWIDE: +1 732 981 0060	
		TECHNICAL INTERESTS	CONTACT & SUPPORT	

About IEEE Xplore | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | Sitemap | Privacy & Opting Out of Cookies

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.

© Copyright 2021 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.

IEEE Account	Purchase Details	Profile Information	Need Help?
» Change Username/Password	» Payment Options	» Communications Preferences	» US & Canada: +1 800 678 4333
» Update Address	» Order History	» Profession and Education	» Worldwide: +1 732 981 0060
	» View Purchased Documents	» Technical Interests	» Contact & Support

About IEEE Xplore | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | Sitemap | Privacy & Opting Out of Cookies

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.

© Copyright 2021 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.