The Mediterranean Journal of Electronics and Communications

Call for papers for the:

SPECIAL ISSUE ON HYBRID RF AND OPTICAL WIRELESS COMMUNICATIONS

Guest Editors:

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The Mediterranean Journal of Electronics and Communications invites you to submit papers for this special issue on the Hybrid RF and Optical Wireless Communications. The contributions for the special issues should address one of the following topics in hybrid systems and networks:

1. theoretical and/or experiments investigations
2. special modulation and coding schemes
3. switchover-technologies
4. intelligent switchover
5. statistics in reliability and availability
6. plus any emerging concept and technologies in this field

Information for Authors:

1- All papers will be reviewed before publication.
2- All submitted papers should comply with the instructions for authors available at: http://www.medjec.com/initial/submission.htm
3- Authors are requested to submit details of two possible reviewers
4- Manuscripts should be submitted electronically to erich.leitgeb@tugraz.at or fary@ieee.org
5- "MEDJEC Special Issue" should be mentioned in the subject line of the email
6- All text, tables, figures must be submitted as a single PDF file
7- **Deadline for submission: 1st March, 2006**.

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IMPORTANT DATES:

Paper Submission: 1st March, 2006

Paper Reviewed: 1st May, 2006

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ABOUT HYBRID RF AND OPTICAL WIRELESS COMMUNICATIONS

The topic of wireless systems (including investigations, experiments and applications) has becomes more interesting for application where there is a need for high-speed data-rate links in Europe and the whole world. Free space optics is one such a scheme that offers huge bandwidth and relatively easy installation between building and sites. However, link availability is rather limited by the weather conditions like fog and heavy snowfall. On the other hand very high frequency RF based link is capable of offering comparable data rates and can operate in foggy and heavy snowfall weather conditions. But link availability is limited by heavy rain. Therefore, a hybrid scheme based on combination of FSO and RF links has the advantage of added redundancy and higher link availability at all weather conditions. RF and FSO communication links have roughly the same properties with regard to offered data rates and flexibility of setup, but operate under different conditions, with their benefits and challenges, thus no being able to offer full availability. The big advantage of the hybrid is the fact, that systems with single system availability of 97% can be improved to 99.93%, which is identical with a gain enlargement of transmitting power of 12 dB in the RF link case.

Recently there has been an increased research interest and activities in both topics and how these complementary technologies could work side by side. See table below. However, the hybrid subject has not been covered as a single topic. Thus the aim of this special issue is to address the latest issues related to hybrid RF-FSO systems and networks (serial or parallel (for increasing the reliability and availability), and bring together the latest in research and development. It is expected that contributions will be received from both industry and academia.

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