

IEEE DySPAN 2008 Demonstration Track Call for Proposals

Introduction

IEEE DySPAN 2008 will provide the opportunity to conduct live demonstrations of dynamic spectrum systems and networks. This year's event will build on the huge success of the demonstrations at IEEE DySPAN 2007 by offering an invaluable opportunity to **demonstrate, experiment, and interact** with other world-leading researchers. This is a call for proposals to demonstrate systems, prototypes, and critical technology components and algorithms at IEEE DySPAN 2008.

IEEE DySPAN 2008 will be held in the Millennium Knickerbocker Hotel, Chicago, IL from Oct. 14 – 17th 2008. Further information regarding the symposium is available at <http://www.ieee-dyspan.org/2008/>

In addition to pre-planned demonstrations, unique opportunities may exist for experimentation by participants. Such opportunities include general measurements of spectral activity during the demonstration and experimentation sessions; the interaction of various, independently-developed systems and networks; and the coexistence of systems using different spectrum adaptation algorithms.

To participate in the demonstration and experimentation activities, candidates must complete the attached form to provide a description of the proposed demonstration and/or experimentation. The proposals will be evaluated by the DySPAN demonstration committee based on the following criteria:

- **Technical Significance:** the extent to which the demonstration illustrates advances in dynamic spectrum access technologies.
- **Demonstration Maturity:** the demonstration must be mature enough “to leave the lab.” Demonstrations involving RF transmissions must include *a priori* or *in situ* risk mitigation measures to ensure regulatory compliance and coexistence with other spectrum users.
- **Demonstration Supportability:** the demonstration must be performed within the capabilities and resources of the DySPAN symposium. Demonstration systems should ideally coexist with other potential demonstrations on a coordinated or uncoordinated basis.

The selected demonstrations will undergo a final review approximately 45 days prior to the symposium to ensure their operational readiness.

Accepted proposals are encouraged to submit a two to four page demonstration description to be included in the DySPAN 2008 proceedings.

Important Dates

February 29, 2008	Complete attached proposal form and submit to dyspandemos@ctvr.ie
April 1, 2008	Notification of demonstration proposal acceptance
September 1, 2008	Submission deadline for demonstration paper
October 14-17, 2008	DySPAN symposium

Regulations and transportation

Regulatory licenses will be negotiated and procured by the demonstration committee based on submitted system capabilities. It is therefore necessary to have knowledge of all possible frequency ranges a device is capable of using if certain frequencies are restricted for experimental use in Chicago.

It is the responsibility of each demonstration participant to secure shipping and handling of their equipment to and from the demonstration site. Those companies/research institutions that will ship equipment from outside of the US may wish to arrange a Carnet. The Carnet is a type of “Merchandise Passport” that can be used as proof that you are temporarily importing commercial samples or professional equipment for exhibition in the host country. US Customs and Border Security is part of the Carnet program as are many other countries. Demonstrators from countries that do not participate in this program will need to contact their local customs officials to facilitate transportation. A suitable link to learn more about Carnets is: <http://www.uscib.org/index.asp?documentID=718>

Other points of note:

- Moving large amounts of electronics through an airport (especially customs) is going to take time. Consider using airfreight for transferring equipment. Otherwise, prepare well in advance and be sure to have all supporting documentation on hand.
- It is also advised that participants consider insurance for any hardware during the symposium and shipping process.
- To obtain a shipping address for the symposium, send a request to dyspandemos@ctvr.ie

Contact Information

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www.ieee-dyspan.org/2008/

DySPAN 2008 Demonstration Proposal

Complete the following form with as much detail as possible. This information will be used to evaluate suitability of admission into the DySPAN Demonstration Session based on the technical significance to the symposium, demonstration maturity, and demonstration supportability.

Contact Information

Primary Contact Name
Organization
Address

Haiyun Tang
Adaptrum, Inc.
1815 McCandless Drive, Milpitas, CA

Phone Number
Email Address

408-850-0545
haiyun@adaptrum.com

Abstract

Provide a concise (300 words) summary of the proposed demonstration and its technical significance.

Real-time video transmission through TV white space.

Description

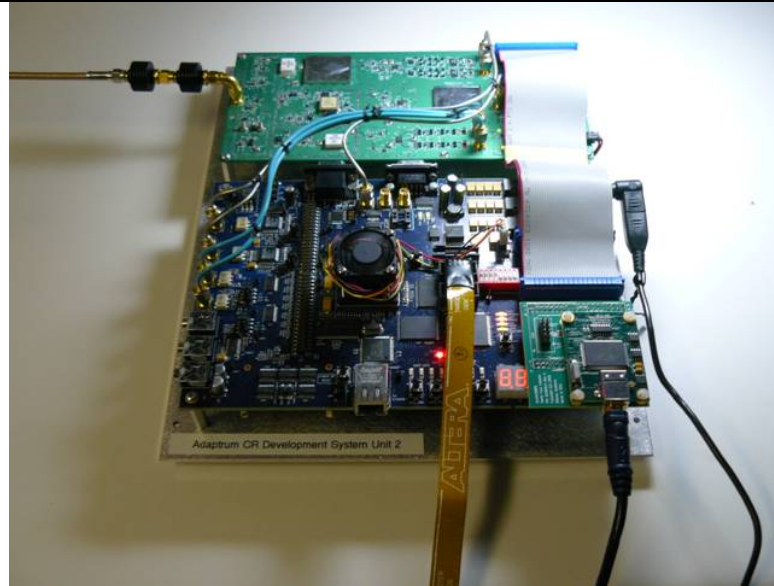
The description should include sufficient detail such that the evaluators can understand the purpose, configuration, design, and conduct of the demonstration/experiment.

Primary technical goals

Demonstrating a real-time video transmission session over TV white space without interfering nearby TV sets.

Description

Pictures, screen shots, and system drawings are encouraged (attach as necessary)



Operational parameters

Frequency Ranges

400 – 1000 MHz

Bandwidth

30 MHz

Peak Input Power to Antenna

< 100 mW

Antenna polarization and gain

Vertically polarized antenna with
approximately 0 dB gain

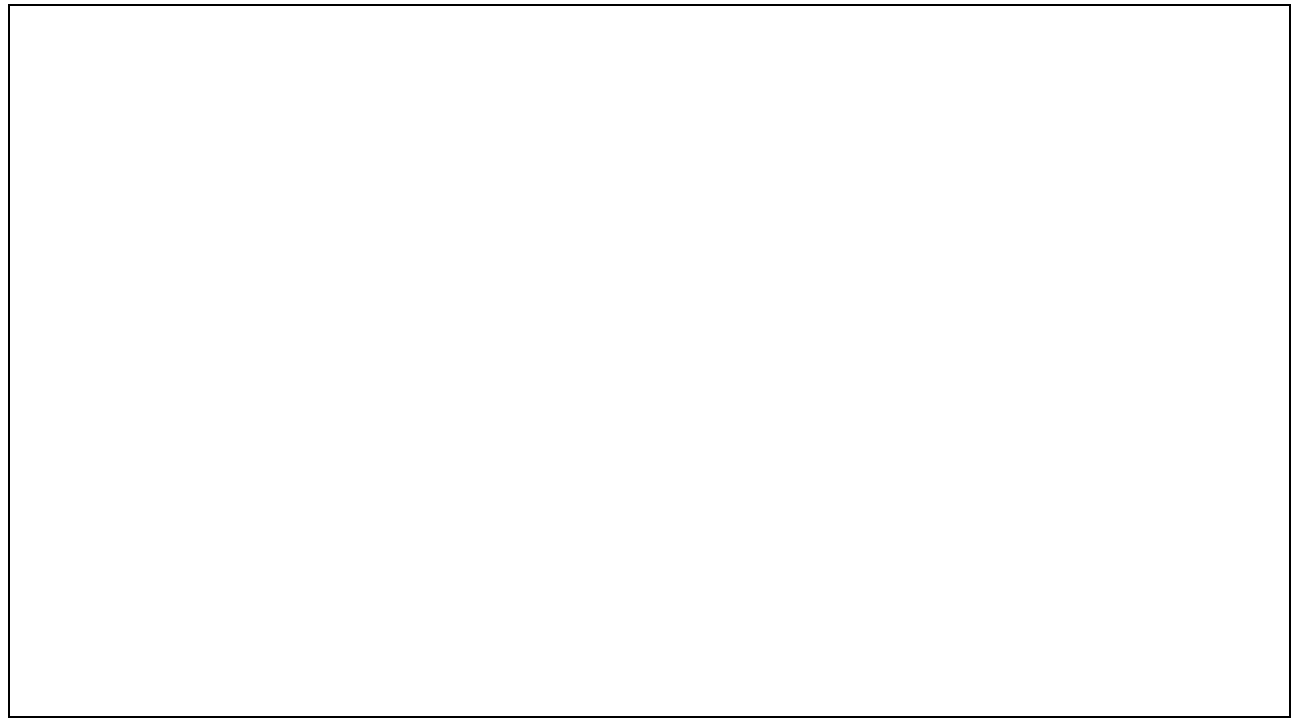
Waveforms (modulation type)

OFDM

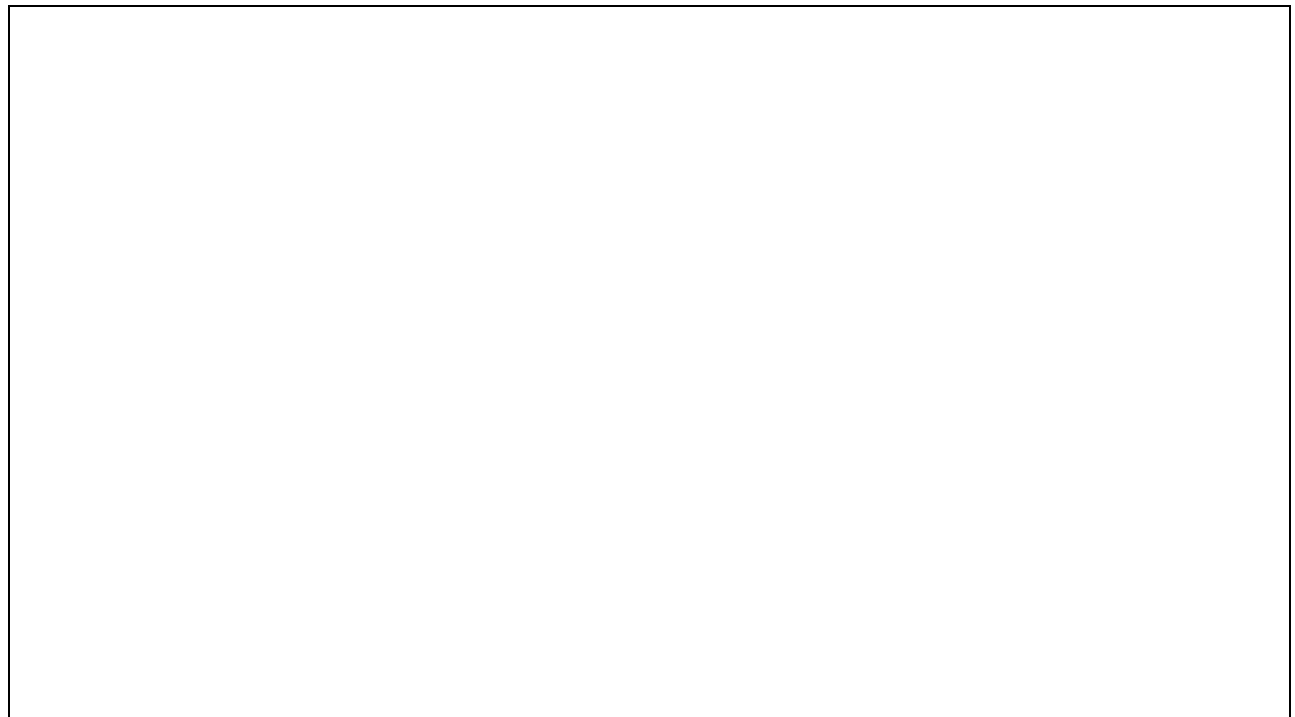
Technical Significance

Address the technical significance of the demonstration/experiment.

Description of the technologies



A discussion of the perceived impact of the demonstration to dynamic spectrum in general and the DySPAN audience in particular



Technical Maturity and Operational Capabilities

Provide sufficient detail regarding the maturity of the demonstration/experimentation.

Current state of the technology, hardware, and software

Some hardware and software functions are still under development.

Amount and type of work yet to be done prior to DySPAN

Risk mitigation methods to be implemented to ensure proper operation within regulatory constraints

Demonstration will show non-interference with nearby TV sets.

Previous experience and trials of demonstration equipment's coexistence with other communication systems

Note that a summary of existing test results may be useful in conveying the operational readiness and stability of the demonstration/experiment

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Logistical Needs

Include the logistical needs for supporting the demonstration/experiment at DySPAN. These details allow the planners to properly acquire and allocate resources to support the demonstrations.

Amount of space required (sq. ft or sq. m)

Number of demonstration tables required

2 tables for transmitter and receiver stations respectively

Input power requirements and number of outlets (note: US uses 120V, 60 Hz power with a NEMA 5 (flat 3-prong) plug)

Approximate power consumption

Storage and security requirements for equipment

Instrumentation and other support equipment requested of DySPAN

Internet/network access (wireless, wired, number of ports, etc.)

Wired internet access preferred

Other needs

Checklist

- ☐ Contact information is complete and accurate
 - ☐ Abstract
 - ☐ Description is complete, including all operation parameters requested
 - ☐ Technical specification
 - ☐ Technical maturity and operational capabilities
 - ☐ Logistical needs described as fully as possible
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- ☐ We grant permission to make the information in this proposal public.