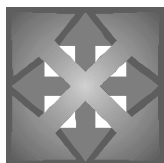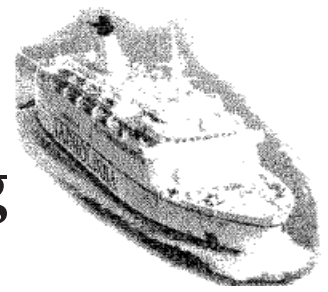**IEEE**

SoftCOM 2003

International Conference on Software, Telecommunications and Computer Networks

Special Session on Recent Advances in Turbo Coding Techniques

October 7-10, 2003
Split, Dubrovnik (Croatia)
Ancona, Venice (Italy)

Call for Papers

Special Session on Recent Advances in Turbo Coding Techniques will be held aboard the luxury ship "Dalmacija" traveling on the route Split (Croatia) - Venice (Italy) - Ancona (Italy) - Dubrovnik (Croatia) in the frame of the 11th International Conference on Software, Telecommunications and Computer Networks - SoftCOM 2003.

Turbo codes represent the most advanced solution in the current scenario of channel coding for error correction. Thanks to their exceptional performance at low/medium signal-to-noise ratios, very close to the Shannon limit, they have been considered for introduction in many international telecommunication standards, like the UMTS/3GPP recommendations for third generation personal communications, the ETSI standard for digital video broadcasting, or the CCSDS standard for packet telemetry in space communications. Improved turbo co/decoding schemes have been also proposed which permit to enrich the minimum distance properties of the codes, thus ensuring optimal performance even for very low error rates. This clearly promises robustness and efficiency against any predictable future need put by the poor error resilience of the most important source-coding schemes actually of interest.

Based on these premises, a large number of research activities have been developed around turbo codes and, most of all, some commercial devices have begun to be produced by many important companies. Though yet preliminary, these realizations are very interesting, often being able to operate at very high data rates and with high spectral efficiencies.

The aim of this Session is to offer a forum where the most recent advances in the theory and application of turbo codes will be discussed. Authors are solicited to submit papers regarding the theoretical and practical aspects in the field. The list of possible topics includes (but is not limited to):

- Analysis of codes based on the "turbo principle", with special emphasis on parallel and serially concatenated convolutional codes (PCCC and SCCC), turbo product codes (TPC) and low density parity check codes (LDPCC)
- Improved decoding algorithms and design criteria of turbo codes
- Complexity aspects of turbo codes
- Performance evaluation of turbo codes in the "water-fall" region and in asymptotic conditions
- Application of turbo codes in practical environments
- Role of turbo codes in the international standards
- Perspectives and strategies for commercial development of turbo codes

Each day of the conference the ship will be anchored in one of the ports on the route, and overnight it will sail towards the next destination. This provides participants with the opportunity to share ideas in close contact with their coleagues and to enjoy the pleasant and inspiring ambience while visiting the ports along the beautiful Adriatic coast. During the conference an exhibition of software and telecommunication products will be held, too.

Schedule		
	Complete manuscript to be received by	May 15, 2003
	Notification of acceptance mailed out by	June 15, 2003
	Camera-ready manuscript to be received by	July 15, 2003

More information about the Conference including details on the submission process and authors kit are available on the website

http://www.fesb.hr/SoftCOM

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