

The Third European DSP Education and Research Conference

- **20th - 21st September 2000**
- **ESIEE, Noisy Le Grand, Paris**
- **<http://www.ti.com/europe/docs/univ/docs/main.htm>**

AGENDA - Version 1

The Third European DSP Education and Research Conference: DAY 1 – 20th September

	Refreshments (Cafeteria)	Formal Presentations (Grand Amphitheatre Marcel Dassault)	TI Presentations (Lecture Room:160)	Workshops (Classroom 2401)	Workshops (Classroom 4105)	Poster Sessions (Near Entrance)
8.00	8.00 – 9.00 : Registration					
9.00		9.00 – 9.30 : Welcome				
10.00		9.30 – 10.30 : Session 1 Teaching DSP				
	10.30 – 10.45 : Break					
11.00		10.45 – 12.00 : Session 2 Audio & Speech Processing				
12.00				12.00 – 13.00 : Workshop 1 Concept for a DSP Laboratory (TU Munich)	12.00 - 13.00: Workshop 2 Control System for a Small Mobile Robot (Karlskrona)	12.00 - 14.30 : Session 1 Communications, Audio, Speech and Image Processing, and Student Projects
13.00						
14.00	13.00 - 14.30 : Buffet Lunch			13.30 - 14.30: Workshop 1 Concept for a DSP Laboratory (TU Munich)	1.30 - 14.30: Workshop 2 Control System for a Small Mobile Robot (Karlskrona)	
15.00		14.30 - 16.00 Session 3 Filter Design and Estimation	14.30 - 16.00 TI Track 1			
16.00	16.00 - 16.15: Break					
17.00		16.15 - 18.00 Session 4 Control				
18.00						
19.00	19.00 - 20.00 Cocktails with TI and Third Parties					
20.00	20.00 Grand Dinner					

The Third European DSP Education and Research Conference: DAY 2 – 21st September

	Refreshments (Cafeteria)	Formal Presentations (Grand Amphitheatre Marcel Dassault)	TI Presentations (Lecture Room 160)	Workshops (Classroom 2401)	Workshops (Classroom 4105)	Poster Sessions (Near Entrance)
8.00	8.00 – 9.00 : Breakfast					
9.00		9.00 - 10.30: Session 5 Video and Image Processing	9.00 - 10.30 : TI Track 2			
10.00	10.30 – 10.45 : Break					
11.00		10.45 – 12.00 : Session 6: Operating Systems and Communications				
12.00				12.00 – 13.00 : Workshop 3 An Introductory Real Time DSP design and development course based on the TMS320C54x DSK (Galway)	12.00 - 13.00: Workshop 4 Ericsson TI8s Voice Dialing Simulator on TMS320C6701 EVM DSP board (KTH)	12.00 – 14.30 : Session 2 Control, Filter design & Estimation
13.00						
14.00	13.00 - 14.30 : Buffet lunch			13.30 - 14.30: Workshop 3 An Introductory Real Time DSP design and development course based on the TMS320C54x DSK (Galway)	13.30 -14.30: Workshop 4 Ericsson TI8s Voice Dialing Simulator on TMS320C6701 EVM DSP board (KTH)	
15.00		14.30 - 16.00 Session : Communications				
16.00	16.00 - 16.15: Break					
		16.15 - 17.00: Closing Session				

The Third European DSP Education and Research Conference: DAY 3 – 22nd September

One-Day Workshops using 'C6711 DSK (advance registrations only Venues: 2401 & 4105

Wednesday, September 20th : FORMAL PRESENTATIONS

9.00 - 9.30 : Welcome

Introductions/Robert Owen, European University Programme Manager

Welcome Address/Dr Alain Cadix, Director, ESIEE Group

Keynote Address/Dave Richardson, President of TI Europe

9.30 - 10.30: Session 1

Teaching DSP

Chairman: Prof Weiss - TU Graz, Austria

Implementation of a real - time satellite channel simulator for laboratory and teaching purposes

University of Bremen - Germany

Construction of DSP systems and the use of commercial DSP systems in Education and Research

Aalborg University - Denmark

Research and Teaching Laboratory for Mobile Communications

TU Munich - Germany

Signal processing teaching with use of TMS320C5x and TMS320C3x devices

TU Bialystok - Poland

10.45 - 12.00: Session 2

Audio & Speech Processing

Chairman: Prof. Baudoin - ESIEE, France

Driving Situational Awareness based on Audio Analysis

University of Cranfield - UK

The Implementation of a Speech Enhancement System with an Adaptive Suppression Lower limit TMS320C541

Middle East Technical University - Turkey

Design and Implementation of a Nonuniform Subband Audio Coder

University of Florence - Italy

A 6.7KBPS VSELP Speech Coder Implementation on TMS320C54x DSP

Processor Board based on Fast Codebook Search Technique

Eindhoven University - The Netherlands

Indian Institute of Technology - India

Real-Time Implementation for Digital Watermarking in Audio Signals Using Perceptual Masking

Technion - Israel

14.30 -16.00 Session 3

Filter Design and Estimation

Chairman: Prof. Durrani Univ. Strathclyde, UK

Fast Implementation of Over sampled Modulated Filter Banks

University of Southampton - UK

Implementation of Perfect Reconstruction Cosine-Modulated Filter Banks

Tampere University - Finland

An adaptive filter for radar clutter suppression based on TMS320C6701 DSP

TU-Bialystok - Poland

Implementation of Multi-rate Modified Wave Digital Filters Using

TMS320C40 and TMS320C6000 Digital Signal Processors

Poznan University - Poland

Pedagogical University of Zielona Gora - Poland

Implementation of a linear predictive method

University of Turku - Finland

16.15 - 18.00: Session 4

Control

Chairman : TBA

A digital vibrating magnetometer gyrometer using a motor control

TMS320F243 DSP

ESIEE - France

A method to detect the rotor position of PM motors at standstill:

Implementation issues using TMS320F24x

University of L'Aquila - Italy

A TMS320F240 DSP based controller for vector control of AC machines

Iran University of Science - Iran

INPL - France

A DSP Controlled Active Filter for Powering Condition

Oregon State University - USA

DSP Based Fuzzy Logic Controllers

Orebro University - Sweden

University of New Brunswick - Canada

The Neural Network Logical Switcher for Fuzzy Motor Control Using

TMSC320C24x Processor

MPEI - Russia

Wednesday, September 20th : POSTER PRESENTATIONS

12.00 - 14.30: Session 1

Communications, Audio and Speech Host : Torrence Robinson or Maria Ho, TI

Video Capture using TMS320C6211

University of Bristol - UK

Parallel Image Processing on the TMS320C80 Multiprocessor System

University of Mining & Metallurgy- Poland

The Auditory Location of an Acoustic Object in Stereo Image

RVT -UK

Building predictable speech recognition services

Escuela Politecnica, Avda - Spain

A Real-time MPEG-1 Audio Layer III Codec on TMS320C549

TI-SJTU Technology Centre - China

Implementing a Time Frequency Estimator for a Real Time Pulsed Doppler

Ultrasound Spectral Analyser using TMS320C31 DSP

Universidade de Tras-os-Montes- Portugal

On-Line QRS-Detection Using the TMS320C6701

TU Berlin - Germany

Abstract for the full duplex OFDM modem project

Royal Institute of Technolgy - Sweden

A Student Project using the TMS320C6701 EVM Board

University of Southampton - UK

Telephone Vocal - Channel Simulator Implemented on a TMS320C31 DSK Board

TU Cluj-Napoca - Romania

A Real - Time Recording System using DSP-Based Multiprocessor Technology

Sundance - UK

Fast AD converter board for the TMS320C6x EVM

TU Bialystok - Poland

Development and performance comparison of Reed Solomon Decoder for TMS320C6200 and TMS320C6400 DSP

University of Bristol - UK

DSP Unit for IP Telephony Systems

CSI Robototechnic - Russia

Analytical Bling Identification of SISO Communication Channel

UNSA - France

Decoding Algorithm Implementation on Fixed - Point DSP

ENSTB - France

Wednesday, September 20th : WORKSHOPS

12.00 -13.00 and repeated at 13.30 - 14.30

Workshop 1

A concept for a DSP Laboratory

TU Munich - Germany

12.00 - 13.00 and repeated at 13.30 - 14.30

Workshop 2

A Control system for a small Mobile Robot

University of Karlskrona - Sweden

Wednesday September 20th TI PRESENTATIONS

TI Track 1

14.30 - 16.00

Potential Areas of future Research / Dr David Thomas

Express DSP Real-Time Software Technology / Joe Dubin

The New C64x Architecture and its enhancements over 'C62x / David Bell

Thursday, September 21st : FORMAL PRESENTATIONS

9.00 - 10.30: Session 5

Video & Image Processing

Chairman: Prof. Bull, Univ. of Bristol, UK

The CGGM graph matching algorithm and its DSP implementation

University of Witwatersrand - South Africa

Technikon of Witwatersrand - South Africa

Implementation of a robust 3D - image reconstruction algorithm on a TMS320C67x DSP

KU Leuven - Belgium

System for Real time motion measurement

UMR CNRS - France

A Video CoDec based on the TMS320C6x DSP

DEEC-IST - Portugal

A TMS320C44 Multi - Processor Based Object Identification and Tracking System for Automated Store Detection in Ball Sports

National University of Galway - Ireland

10 45- 12.00: Session 6

S/W Tools, Operating Systems & Communications

Chairman: Prof. Lauwereins KUL, Belgium

Automatic generation of software development tools from LISA architecture descriptions

RWTH Aachen - Germany

Distributed Real - time and Fault tolerance orientated Micro-kernel :DREAM

UBP Clermont - Ferrand - France

The role of TI's DSP/BIOS in implementation of Real-Time DSP Algorithms and Systems.

University of Bristol - UK

Open Software Radio Platform for New generations of Mobile Systems

Eurecom - France

EPFL - Switzerland

A Software Radio Development Platform - Partnering a 'C6x with Virtex FPGA

Centre for Wireless Communications - Singapore

14.30 -16.00: Session 7

Communications

Chairman: Christian Bonnet, Eurecom, France

Adaptive CDMA Multiuser Detector Implementation on the TMS320C6000

University of Bristol - UK

Experimental implementation of the Spatial Division Multiple Access (SDMA) algorithms using DSP system with the TMS320C44 processors

KU Leuven - Belgium

Third Generation Mobile Phone System Simulation Platform

VTT Electronics - Finland

Real Time turbo decoding of BCH product code on the DSP Texas TMS320C6701

ENSTB - France

Mitsubishi Electric ITE - France

DSP based wireless modem for COFDM transmission

University of Bucharest - Romania

Thursday, September 21st : Closing Session

16.15 - 17.00

Prize Draw for Completion of Evaluation Forms

Building Stronger Links to the University Programme

Thursday, September 21st : POSTER PRESENTATIONS

12.00 - 14.30: Session 2

Communications, Audio and Speech
Host: Torrence Robinson or Maria Ho, TI

Digital Control for Induction Heating Series Switching Generators

Universitat de Valencia - Spain

GH Electrotermia - Spain

Fixed Point implementation of Kalman Filtering for AC drives: a case study using TMS320F24x DSP

University of L'Aquila - Italy

Compensation of voltage source inverter non linearity by using

TMS320F24x DSP

University of L'Aquila - Italy

H8 Sampler Data Control: Design, computation & Implementation on a DSP

University of Cluj - Napoca -Romania

Control Circuit for Power active Harmonic Compensation Filter in power systems realized on DSP TMS320C50

Poznan University - Poland

DSP based flexible Digital Control Systems for Advanced Power

Electronics, Motion control and Industrial Automation Applications

The electrotechnical Institute - Poland

DSP based speed sensorless VSS Torque Controller for Induction Motor

University of Maribor - Slovenia

Controller area Network Demotic system using TMS320F243

Polytechnic institute Castelo Branco - Portugal

UTAD - Portugal

A DSP Based platform for an intelligent control System of a

Telecommunication Power Supply Test Bench Unit

Helsinki University of Technology - Finland

9 MFLIPs Serial - Parallel Full programmable Fuzzy Controller on a TI

TMS320C6201

UPM - Spain

Assembly Optimised FFT algorithms for TMS320C62 processors

University of Florence - Italy

Intruder Detection using Ground based Sensors and Adaptive Filtering

University of Nottingham Trent - UK

GeoQuip Ltd - UK

Importance of digital filter sensitivity analysis and conversion of their structures.

TU Gdansk - Poland

TMS320C54 Based tester for copper line measurements

Voronezh State University - Russia

Dynamic non - uniform filter bank constructing algorithms for reconfigurable speech processing system based on the FPGA device and TMS320C31

Tu Bialystok - Poland

Belarussian State University - Russia

DSP Implementation on a high Resolution Parameter Estimating Scheme

TU Munich - Germany

Thursday, September 21st : WORKSHOPS

12.00 -13.00 and repeated at 13.30 - 14.30

Workshop 3

An Introductory Real - Time DSP design and development course Based on the TMS320C54x DSK

National University of Ireland - Ireland

12.00 - 13.00 and repeated at 13.30 - 14.30

Workshop 4

Ericsson T18s Voice Dialing Simulator on TMS320C6701 EVM DSP Board

Royal Institute of Technology (KTH) - Sweden

Thursday September 21st TI Presentations

9.00 - 10.30 TI Track

Express DSP Real-Time Software Technology (Repeat)/ Joe Dubin

Presentation on C5x / (To be announced)

Motor Control DSP: The New C28x Architecture / (To be announced) .

