DigitalDNA from Motorola

dsplabs Timisoara

DALT

Outstanding Results

2000
- "Integrating the DSP563xx in Distributed Computing Environments", R&D Grant DALT.1.1/2000 and Application Note AN2088/D Rev. 0, 3/2001.
- "Interfacing a Data Acquisition System to the DSP56303", R&D Grant DALT.1.2/2000 and Application Note AN2087/D Rev. 0, 12/2000.
- "Simple Real-time SONAR with the DSP56824", R&D Grant DALT1.3/2000 and Application Note AN2086/D Rev. 0, 06/2001.
- "ECP Standard Parallel Interface for DSP56300 Devices", R&D Grant DALT.1.4/2000 and Application Note AN2085/D Rev. 0, 11/2000.
- 4 scientific papers published at national and international conferences and periodicals.
- Motorola granted DALT with over $10,500 dollars.

2001
- A four-year doctoral program, granted by Motorola, for research in the parallel and multiprocessor signal processing field.
- "Mini-robot with the Motorola DSP56824", R&D Grant DALT.2.2/2001.
- "MP3 Decoder with the Motorola DSP56824", R&D Grant DALT.2.3/2001.
- "Face Recognition System with Motorola DSP", R&D Grant DALT.2.4/2001.
- "Real-time Person Tracking System with Motorola DSP", R&D Grant DALT.2.5/2001.
- "Professional Audio Processor with the DSP56307", R&D Grant DALT2.6/2001.
- 4 scientific papers and 3 application notes currently under development..
- Motorola granted DALT with over $19,000 dollars.

Perspectives

Continuous increase of the number and quality of the DALT team is considered as top priority. The true value of DALT consists of the quality, the experience and the commitment of its team members.

We also seek to further develop the didactic and R&D activities in the signal processing field, resulting in a constant increase of joint papers, doctoral, master's and diploma programs,

Another priority is the constant development and improvement of the equipment and technical support in the laboratory.

Our efforts converge towards establishing of proper premises to develop in the near future a Motorola Research and Development Center in Timisoara, with academic coordination and support.

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Thank you,
The DALT Team

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dsplabs Timisoara

Dsp Applications Lab Timisoara

Two Years of Excellence

November 2001

About DALT

DALT – the Motorola DSP Applications Lab in Timisoara, was founded in November 1999, as a section of the DSPLabs laboratories, at the Computer and Software Engineering Department, POLITEHNICA University of Timisoara.

DALT is supported by the Motorola SPS through research and development grants, equipment sponsorships, documentation, and by other means.

The main functions of the DALT Section are:

1. to support didactic activities (courses, seminars and laboratory workshops) with students at the Automatics and Computer Science Faculty
2. to host and coordinate diploma theses, master's dissertations and doctoral programs
3. to develop research and application projects within research contracts and grants.

All the activities are focused on the Motorola digital signal processors (DSP) and their applications in fields like:

- digital signal acquisition and processing systems
- digital image and video processing systems
- digital telecommunications
- parallel and multiprocessor signal processing systems
- distributed and real-time systems
- embedded algorithms and devices

The soul and mind of DSPLabs and its most valuable component, is the laboratory team consisting of staff members and students, with high experience and commitment.

History

Oct 11, 1999	First visit of Motorola representatives in Timisoara.
	Dr. **Andreas Wild**, Chief Scientist, Americas Region, SPS, and Mr. **Paul Marino**, Director, DSP Core Technology Center, SPS.
	Successful discussions to set up the background of Motorola collaboration with universities in Romania in the DSP field.
Dec 12, 1999	Motorola provides DALT with 6 DSP Evaluation Modules through a sponsorship contract.
	As a result, the laboratory workshops for the "Introduction to Digital Signal Processing" and "Advanced Digital Signal Processing" courses, are supported with the equipment at DALT.
Feb 03, 2000	Project Review Session in Bucharest.
	A set of four application projects were granted by Motorola SPS to be developed at DALT.
Feb 04, 2000	Second visit of Motorola representatives in Timisoara.
	Dr. **Andreas Wild**, Chief Scientist, Americas Region, SPS, Mr. **Uwe von Ammon**, Director, Strategic Relations and Program Development Europe, Middle East and Africa, and Ms. **Daniela Andreescu**, Corporate Branch Manager, Bucharest, Romania.
Jun 01, 2000	Official Ceremony of signing the "Memorandum of Understanding" between Motorola, Inc. and POLITEHNICA University of Timisoara, in Bucharest.
Jun 02, 2000	Project Review Session in Bucharest.
	Development status review of the first set of four application projects granted at DALT.
Oct 11, 2000	First Anniversary of DALT.
Nov 08, 2000	"Motorola Day in Romania", Bucharest.
Feb 23, 2001	Project Review Session in Bucharest.
	A set of five application projects agreed to be developed at DALT, four of them being granted by Motorola SPS.
	The first joint PhD. program between Motorola and a Romanian university was granted to Mihai V. MICEA at DALT.
Jul 27, 2001	Project Review teleconference session.
	Development status review of the second set of projects at DALT. All five projects were acknowledged as successfully finalized.
Oct 11, 2001	Second Anniversary of DALT.
Nov 21, 2001	"Motorola Day in Romania", Bucharest.

Outstanding Collaboration with Motorola

Guidelines:

☞ Motorola support for the Computer & Software Engineering Department laboratories
☞ Introduction of the Motorola technology and know-how into the department courses and laboratory materials
☞ Development of common R&D projects and grants in DSP, embedded systems and microcontroller fields
☞ Joint publication of scientific papers and participation at prestigious national and international conferences
☞ Motorola support for post-graduate R&D activities: Master's and Ph.D. programs and grants based on common interest topics

Sponsorships:

- MOTOROLA DSP Evaluation Modules Package
- KHOROS Pro 2000 Package
- DEM-ADS 824 E, 70 Mhz signal acquisition module
- Two PC workstations funding – to be provided

Total amount of sponsorship: over $10,000 dollars.

Awards and Recognition

- **Award of the Jury** at the Scientific Student Communication Session, SSCS'2001 with the paper: "Real-time Person Tracking System with Motorola DSP", Computer and Software Engineering Department, POLITEHNICA University of Timisoara, 2001.
- **Award of the Jury** at the Scientific Student Communication Session, SSCS'2001 with the paper: "Professional Audio Effects Processor with Motorola DSP", Computer and Software Engineering Department, POLITEHNICA University of Timisoara, 2001.
- **Second Prize** at the 7-th Annual Students' International Contest, "Hard & Soft" Suceava, "Stefan cel Mare" University of Suceava, May 15-20, 2000
- **First Prize** at the 6-th Annual Students' International Contest, "Hard & Soft" Suceava, "Stefan cel Mare" University of Suceava, May 17-22, 1999
- " [...] *I have recently read and implemented your 'ECP Standard Parallel Interface for DSP56300 Devices' application note. I found it to be extremely clear and your results were straightforward to duplicate.* [...] " – Dr. Casey MILLER, University of Canterbury, Christchurch, New Zealand, March 2001.