



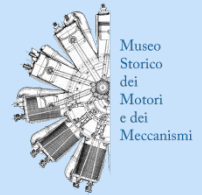
TCLMC Summer School on Mechanism Design for Applications

MDA 2016

September 12- 16, 2016

University of Palermo, Italy,

Museum of Engines and Mechanisms – DICGIM – Polytechnical School



TCLMC Committee

Chair: Erwin-Christian Lovasz (Romania)

Co-chair : Victor Petuya (Spain)

Local organising committee

Francesco Sorge (Chair) , Marco Cammalleri, Giuseppe Genchi

Topics

The summer school addresses to master and PhD students, young researchers or specialists working in mechanism designs and mechanical controls that are used mainly, but not only in robotics and mechatronics. The summer school will deal with the following topics:

1. Mobile Robots

Lecturer: Prof. Giuseppe Quaglia,
Polytechnic University of Turin, Italy

2. Mechanism design used in mechatronic applications

Lecturer: Prof. Burkhard Corves
RWTH Aachen University, Germany

3. Introduction to vision systems applied to robotics

Lecturer: Prof. Cesare Rossi,
University of Naples Federico II, Italy

4. Geared linkages with linear actuation

Lecturer: Prof. Erwin-Christian Lovasz,
University Politehnica Timișoara, Romania

5. Performance evaluation and design of parallel mechanisms

Lecturer: Prof. XinJun Liu
Tsinghua University of Beijing, China

6. Computational kinematic and dynamic characterization of mechanisms

Lecturer: Prof. Victor Petuya,
University of the Basque Country, Spain

7. Dynamics balancing of linkage with applications to link optimization

Lecturer: Prof. Rosario Sinatra,
University of Catania, Italy

8. Optimal Synthesis of Cam/Geared-Linkages

Lecturer: Prof. Domenico Mundo,
University of Calabria, Italy

9. Analysis and synthesis of power split CVT's

Lecturer: Prof. Marco Cammalleri,
University of Palermo, Italy

10. Kinematic design of parallel robots and low-cost walking welfare robots

Lecturer: Prof. Yukio Takeda,
Tokyo Institute of Technology, Japan

11. Designing Haptic Devices

Lecturer: Prof. Memhet I Can Dede,
Izmir Institute of Technology, Turkey

12. Yaw stability of single vehicles and vehicle-trailer systems

Lecturer: Prof. Francesco Sorge,
University of Palermo, Italy

Closure speech: Innovation in MMS and IFTToMM role

by Prof. Marco Ceccarelli,
University of Cassino, Italy

Summer School Location

The Summer School will be held at the Museum of Engines and Mechanisms - DICGIM – Polytechnical School of University of Palermo

Address: Viale delle Scienze, Building 8, 90128 Palermo
<http://www.museomotori.unipa.it>

Accommodation

For the Summer School, the local organization team provides the following option for accommodation. The participants to the MDA2016 Summer School are invited to reserve rooms in the university guesthouse or in suggested hotels.

Fees

The fee is 150 Euro. It includes attendance to lectures, summer school materials, daily lunch and two coffee breaks per day, excursion and social event.

Registration

Please fill in the registration form and send it before June 30, 2016 to: museomotori@unipa.it

Method of payment

Payment in EURO free of any charges to the beneficiary should be made by bank transfer to:

Account holder/institution name: Università degli Studi di Palermo

Address: piazza Marina, 61 - 90133 Palermo, Italy

VAT registration number: 80023730825

Bank name: Unicredit

Bank address: Via Roma, 185 - 90133 Palermo, Italy

Swift code: UNCRITMMPAE

IBAN: IT 09 A 02008 04682 000300004577

Support

The Summer School on Mechanism Design for Applications 2016 is supported by the University of Palermo, IFTToMM Italy and the Technical Committee "Linkages and Mechanical Controls" of the International Federation for the Promotion of Mechanism and Machine Science IFTToMM. The event is organized under the patronage and the support of IFTToMM, which offers grants for young delegates.

(More information on website:

<http://www.museomotori.unipa.it/MDA2016>

Preliminary program

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
09:30 - 11.00	Registration	Giuseppe Quaglia: Mechanical controls	Erwin-Chr. Lovasz: Geared linkages with linear actuation	Marco Cammalleri: Analysis and synthesis of power split CVT's.	Yukio Takeda: Design of simple and low-cost walking welfare robots	Excursion 9:00-13:00
11.15 – 12:45	Opening Session and visit of the engine museum	Burkhard Corves: Mechanism design in Mechatronics	XinJun Liu: Performance evaluation and design of parallel mechanisms	Domenico Mundo: Advanced Dynamic Modelling and Simulation of Mechanical Transmissions	Memhet I Can Dede: Designing Haptic Devices	
13.00 – 14:30	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break	
14:30 – 16:00	Giuseppe Quaglia: Mobile robots	Cesare Rossi: Introduction to vision systems applied to robotics	Rosario Sinatra: Dynamics balancing of linkage with applications to link optimization	Victor Petuya: Computational kinematic and dynamic characterization of mechanisms.	Victor Petuya: Computational kinematic and dynamic characterization of mechanisms.	
16:15 – 17:45	Burkhard Corves: Mechanism design in Mechatronics	Erwin-Chr. Lovasz: Geared linkages with linear actuation	Domenico Mundo: Optimal synthesis of cam/geared-linkages	Yukio Takeda: Kinematic design of parallel robots	Francesco Sorge: Yaw stability en route of single vehicles and vehicle-trailer systems Closure speech by Marco Ceccareli: innovation and IFToMM role	
20:00-22.00	Free time	Free time	Free time	Free time	Social event	