

International Workshop on Hybrid and Solar Vehicles

November 6, 2006 - University of Salerno, Italy

www.dimec.unisa.it/WHSV

Final Program

Sunday, November 5, 2006

19.00-22.00 **Complesso San Michele, Salerno**
Welcome Reception

Monday, November 6, 2006

8.30-9.00 **University of Salerno, "Aula delle Lauree",
Faculty of Engineering**
Workshop Registration

9.00-9.40 **Workshop Opening**
R.Pasquino, Rector of University of Salerno
A.Villani, President of Province of Salerno
C.Muritano, Ministry of Education, Rome
V.Cardone, Dean of Faculty of Engineering, University of Salerno
A.Calvanese, President of BiMed
A.Buonomo, President of Automobile Club Salerno
A.Lepre, Headmaster of Alfano I, Promoter of Leonardo Project "Energy Conversion Systems and Their Environmental Impact"
G.Rizzo, University of Salerno, Workshop Chair

9.40-10.10 **Plenary lecture**
S.E.Letendre
Prometheus Institute for Sustainable Development, Vermont (USA)
USHERING IN AN ERA OF SOLAR-POWERED MOBILITY

10.10-10.30 Coffee Break

10.30-10.50 Zs. Preitl (1), P. Bauer (1), J. Bokor (2)
(1) Budapest University of Technology and Economics, Dept. of Transport Automation, Hungary
(2) Computer and Automation Research Institute, Budapest, Hungary
FUEL CONSUMPTION OPTIMIZATION FOR HYBRID SOLAR VEHICLE

10.50-11.10 P. Bauer (1), Zs. Preitl (1), P. G6sp6r (2), Z. Szaby (2), J. Bokor (2)
(1) Budapest University of Technology and Economics, Dept. of Transport Automation, Hungary
(2) Computer and Automation Research Institute, Budapest, Hungary
CONTROL ORIENTED MODELLING OF A SERIES HYBRID SOLAR VEHICLE

11.10-11.30 A.Boyalı (1), M.Demirci (1), T.Acarman (2), L.G6v6nz (1), B.Kiray (3), M.Yildirim (3)
(1) Istanbul Technical University, Mechanical Engineering Dept., Istanbul, Turkey
(2) Galatasaray University, Fac.of Engineering and Technology, Istanbul, Turkey
(3) Ford-Otosan, Product Development, R&D Department, Kocaeli, Turkey
A SIMULATION PROGRAM FOR A FOUR WHEEL DRIVE PARALLEL HYBRID ELECTRIC VEHICLE AND ITS USE IN RULE BASED CONTROLLER DEVELOPMENT AND IMPLEMENTATION

11.30-11.50 I.Arsie, R.Di Martino, G.Rizzo, M.Sorrentino
DIMEC, University of Salerno, Italy
A MODEL FOR A PROTOTYPE OF HYBRID SOLAR VEHICLE

11.50-12.10 G.Petrone (1), G.Spagnuolo (1), M.Vitelli (2)
(1) DIII, University of Salerno, Italy

(2) DII, Seconda Universita di Napoli, Aversa (CE), Italy
A MODEL OF MISMATCHED PHOTOVOLTAIC FIELDS FOR SIMULATING HYBRID SOLAR VEHICLES

12.10-14.00 Lunch and visit to Laboratories of DIMEC and DIII

14.00-14.20 I.Ionita, D.Negoita, S.Paraschiv, I.V. Ion
University of Galati "Dunarea de Jos", Romania
THE PROFITABLENESS OF HYBRID SOLAR VEHICLES

14.20-14.40 C.Boccaletti (1), G.Fabbri (1), F.M.Frattale Mascioli (2), E.Santini (1)
(1) Department of Electrical Engineering, University of Rome "La Sapienza", Italy
(2) Department INFOCOM, University of Rome "La Sapienza", Italy
TECHNICAL AND ECONOMICAL FEASIBILITY STUDY OF A SMALL HYBRID VEHICLE FOR URBAN TRANSPORTATION

14.40-15.00 D.Paire (1), M.Becherif (2), A.Miraoui (1)
(1) L2ES, UTBM, Belfort (cedex) 90010, France
(2) SeT, UTBM, Belfort (cedex) 90010, France
PASSIVITY-BASED CONTROL OF HYBRID SOURCES APPLIED TO A TRACTION SYSTEM

15.00-15.20 G.Rousseau (1,2), D.Sinoquet (1), P.Rouchon (2)
(1) Institut Francais du P6trole, 92852 Rueil Malmaison, France
(2) Centre Automatique et Systemes, Ecole des Mines de Paris, Paris, France

HYBRID ELECTRICAL VEHICLES: FROM OPTIMISATION TOWARD REAL-TIME CONTROL STRATEGIES

15.20-15.40 Coffee Break

15.40-16.00 N.Caccavo, G.Carbone, L.Mangialardi, L.Soria
Dipartimento di Ingegneria Meccanica e Gestionale, Politecnico di Bari, Italy
PERFORMANCE TESTING OF HYBRID VEHICLES IN BARI DOWNTOWN

16.00-16.20 M. Cacciato, A. Consoli, G. Scarcella, A. Testa
Dipartimento di Ingegneria Elettrica Elettronica e dei Sistemi, Catania, Italy
HYBRID VEHICLES WITH ELECTRICAL MULTI ENERGY UNITS

16.20-16.40 A.Cid-Pastor (1,3), L.Martinez-Salamero (2), C.Alonso (1), G.Schweitz (3) and R.Leyva (2)
(1) LAAS-CNRS, Laboratoire d'Analyse et des Architectures des Systemes, Toulouse, France
(2) ETSE Universitat Rovira i Virgili / Dept. Eng. Electrónica, Elctrica i Automatica, Tarragona, Spain
(3) EDF R&D / LME Department, Moret sur Loing, France
IMPEDANCE MATCHING FOR PV GENERATOR

16.40-17.20 Discussion and Conclusions

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Why a
Hybrid
Solar
Vehicle?



Università di Salerno

IFAC
TC Automotive Control



Provincia di Salerno



www.acsalerno.it

LOMBARDINI



SAGGESE



Istruzione e cultura



Leonardo da Vinci

Energy Conversion Systems

and their Environmental Impact

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Chair

Prof. Gianfranco Rizzo, DIMEC, University of Salerno, Italy, grizzo@unisa.it

Scientific Committee

I.Arsie, DIMEC, Univ. of Salerno (I); M.Basset, UHA, Mulhouse (F); J.Bokor, BUTE, Budapest (HU); E.Chiappini, Univ. of L'Aquila (I); G.Gissinger, UHA, Mulhouse (F); L.Guvenç, ITU, Istanbul (TR); Y.Guezennec, OSU, Columbus (USA); L.Guzzella, ETH, Zurich (CH); I.Ionita, Univ. of Galati (RO); T.Peter, BUTE, Budapest (HU); C.Pianese, DIMEC, Univ. of Salerno (I); G.Rizzo, DIMEC, Univ. of Salerno (I); G.Rizzoni, OSU, Columbus, Ohio (USA); G.Spagnuolo, DIIE, Univ. of Salerno (I).

Organizing Committee

I.Arsie, G.Rizzo, M.Sorrentino, DIMEC, University of Salerno (Italy), G.Spagnuolo, DIIE, University of Salerno, Italy.