

Project Overview



MOBILITY

Running Projects

hy.muve [1]

Hydrogen Driven Municipal Vehicle

NADIP [2]

NO_x Abatement in Diesels – SCR process analysis and optimization

UFCEV [3]

Ultra-Fast Charging of Electric Vehicles

THELMA [4]

Technology-Centered Electric Mobility Assessment

Cohyb [5]

Customized Hybrid Powertrains

Completed Projects

LERF [6]

Large Engine Research Facility

TransEng Testing [7]

Transient Heavy Duty Engine Test Facility

NEADS [8]

Next Generation Exhaust Aftertreatment for Diesel Propulsion Systems

HY_Change [9]

Transition to Hydrogen Based Transportation

CEMTEC [10]

Computational Engineering of Multiscale Transport in Small-

ELECTRICITY

Running Projects

CARMA [12]

Carbon Dioxide Management in Swiss Power Generation

PINE [13]

Platform for Innovative Nuclear FuEls

SwissKitePower [14]

Novel Wind Energy Extraction Technology

HydroNet 2 [15]

Modern Methodologies for Design, Manufacturing and Operation of Hydropower Plants

Battery Test Bench [16]

Acquisition of an Automated Battery Cell Test Station

DURSOL [17]

Exploring and Improving Durability of Thin Film Solar Cells

Completed Projects

HydroNet [18]

Modern Methodologies for Design, Manufacturing and Operation of Pumped Storage Power Plants

GTCO₂ [19]

Technologies for Gas Turbine Power Generation with CO₂ Mitigation

ONEBAT [20]

Battery Replacement using

HEAT AND BUILDING

Running Projects

ccem-retrofit [23]

Advanced Energy Efficient Renovation of Buildings

Archinsolar [24]

Unique and Innovative Solution of Thin Silicon Films Modules Building Integration

AQUASAR [25]

Direct Re-Use of Waste Heat from Liquid-Cooled Supercomputers

SuRHiB [26]

Sustainable Renovation of Historical Buildings

Completed Projects

ccem-house2000 [27]

Innovative Building Technologies for the 2000 Watt Society

scale Surface Based Energy Conversion

CELaDE [11]

Clean and Efficient Large Diesel Engines

Battery Replacement using Miniaturized Solid Oxide Fuel Cell

ThinPV [21]

Cost Efficient Thin Film Photovoltaics for Future Electricity Generation

PHITEM [22]

Platform for High Temperature Materials



EDUCATION

Running Projects

MOSUM [28]

Mobility Support for Master's in Nuclear Engineering

FUEL

Running Projects

ARRMAT [29]

Attrition Resistant Reactive Bed Materials in Fluidised Beds

HyTech [30]

Sustainable Hydrogen Technologies

SunCHem [31]

Bio-Synthetic Natural Gas from Microalgae

SYNGAS DIAGNOSIS [32]

Online Process Diagnostics for Operation Performance of a Biomass Gasification Process

WOODGAS-SOFC 2 [33]

Integrated Biomass – Solid Oxide Fuel Cell Cogeneration

ECO-ENERGY

Running Projects

novatlantis [36]

Sustainability at the ETH Domain – Promotion of Transdisciplinary Science

Completed Projects

2ndGenerationBiogas [34]

New Pathways to Efficient Use of Biomass for Power and Transportation

WoodGas-SOFC [35]

Integrated Biomass – Solid Oxide Fuel Cell Cogeneration

URLs:

- [1] : http://www.ccem.ch/.hy_muve
- [2] : <http://www.ccem.ch/.nadip>
- [3] : <http://www.ccem.ch/.ufcev>
- [4] : <http://www.ccem.ch/.thelma>
- [5] : <http://www.ccem.ch/.cohyb>
- [6] : <http://www.ccem.ch/.lerf>
- [7] : <http://www.ccem.ch/.transengtesting>
- [8] : <http://www.ccem.ch/.needs>
- [9] : http://www.ccem.ch/.hy_change
- [10] : <http://www.ccem.ch/.cemtec>
- [11] : <http://www.ccem.ch/.celade>
- [12] : <http://www.ccem.ch/.carma>
- [13] : <http://www.ccem.ch/.pine>
- [14] : <http://www.ccem.ch/.swisskitepower>
- [15] : <http://www.ccem.ch/.hydronet-2>
- [16] : <http://www.ccem.ch/.batterytestbench>
- [17] : <http://www.ccem.ch/.dursol>
- [18] : <http://www.ccem.ch/.hydronet>
- [19] : <http://www.ccem.ch/.gtc02>
- [20] : <http://www.ccem.ch/.onebat>
- [21] : <http://www.ccem.ch/.thinpv>
- [22] : <http://www.ccem.ch/.phitem>
- [23] : <http://www.ccem.ch/.ccem-retrofit>
- [24] : <http://www.ccem.ch/.archinsolar>
- [25] : <http://www.ccem.ch/.aquasar>
- [26] : <http://www.ccem.ch/.surhib>
- [27] : <http://www.ccem.ch/.ccem-house2000>
- [28] : <http://www.ccem.ch/.mosum>
- [29] : <http://www.ccem.ch/.armat>
- [30] : <http://www.ccem.ch/.hytech>
- [31] : <http://www.ccem.ch/.sunchem>
- [32] : <http://www.ccem.ch/.syngas-diagnosis>
- [33] : <http://www.ccem.ch/.woodgas-sofc-2>
- [34] : <http://www.ccem.ch/.2ndgenbiogas>
- [35] : <http://www.ccem.ch/.woodgas-sofc>
- [36] : <http://www.ccem.ch/.project-novatlantis>

<http://www.ccem.ch/projects>