



Education and Culture DG

Lifelong Learning Programme

PROGRAM TTT

Project E-BIKE – 2011-1-BE3-LEO04-03609 5

DATE: 14-15 June 2012
PLACE: CELF, 4800 Nykøbing F, DK

14/06/2012 - Day 1 (9h-15h) : Basic Electricity

- Atomic Theory
- Ohm's law, Power dissipation
- Comparison between water and electricity
- link between potential difference, current, resistance and power
- Conductors, Insulators, and Semi-Conductors
- series and parallel connections in accumulator systems
- Basics in handling Lithium batteries
- Motor theory: Brushed commutator motor, BLDC, PMSM

15/06/2012 - Day 2 (9h-15h) : E-Bike

- Types of Electric bikes, advantages which different setups
- Basic Electronics: Hall sensor, diodes, thyristor, MOSFET, capacitor, etc.
- Diagnostics multimeter, scope
- Practical measuring on the bikes, troubleshooting to determine which parts to replace or repair