

MSE-711

PVLab School

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Cursus	Sem.	Type
Advanced Manufacturing		Obl.
Materials Science and Engineering		Obl.

Language of teaching	English
Credits	3
Session	
Exam	Written
Workload	90h
Hours	45
Courses	42
Exercises	1
TP	2
Number of positions	

Remark

Postponed until further notice

Summary

This course is organised for industrial partners and addresses therefore primarily applied aspects important for manufacturing.

Content

Typical program includes:

- State of the art on thin film PV and market situation
- Deposition techniques
- Thin film silicon
- Amorphous and micro or nano silicon materials
- Photovoltaic devices
- Back end; Encapsulation and testing
- TCO and light trapping
- Tandem solar cells
- Series interconnection, lasering
- Cell design and diagnostic
- Characterisation methods (spectroscopy, electrical measurements, shunts analysis...)
- Photovoltaic installations

Note

This course is organised for industrial partners and 4-5 places are opened to PhD students in the field of photovoltaics

Keywords

Photovoltaic, thin film, silicon, CVD, encapsulation, diagnostic tools

Learning Prerequisites**Recommended courses**

Engineer

Resources

Websites

- http://pvlab.epfl.ch/pv_school