

Advanced Workshop "Design Photovoltaic (PV) Arrays"

Necessary to take the right decisions and be able to plan, buy, install and operate PV systems



Let's not recognize or predict future.

Let's create it like we need it!

- ☺ Would you also agree that **PV-Systems designed and installed without deeper knowledge and experience are a pity?** A tremendous waste of energy and money?
- ☺ Would you agree that solar education is necessary to **avoid costly mistakes?**
- ☺ How would it feel to serve your country with endless, clean and independent solar energy with knowledge and **have success with it?**

The training is designed to empower the participants to work in the Solar Energy Sector. **This training is necessary to take the right decisions and be able to plan, buy, install and operate** infinite, clean and independent solar energy systems.

The Academy
of Solar Power Education



The Academy of Solar Power Education (The Academy) aims to provide you the latest and best and photovoltaic education in the world. During the last 20 years Germany was the largest PV-market worldwide, the German education about PV is world leading. The content will be presented easy to understand, interactive and with strong relation to the practice. **Experience learning with excitement and fun. It is the initial key for your success.**

The Academy has trained Universitas Sumatra (USU), Universitas Indonesia (UI); and cooperates as well as with foreign or national companies and Institutions such as AHK-EKONID, PSPA, GIZ-GPCCI.

Don't miss it, register now!

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www.inutec-int.com
Im Gewerbegebiet 17
38315 Schladen GERMANY



REQUIREMENTS

Good knowledge about PV-systems and their fundamentals is required!
You should also know all the electrical basics. The knowledge from PV-Basics course is mandatory to join this course.



INSTRUCTOR

CEO/Dipl.-Ing. Environment Techniques
Authorized Expert for Photovoltaic Equipment (TÜV)

Alexander Kaub



TARGET GROUP

All successful participants of PV-Basics, entrepreneurs and their teams, installers, architects, planners, decision makers, sales specialists, government, education and

- ✓ you if you want to get your business growing fast
- ✓ you if you want to avoid costly mistakes!



COURSE FEE

Around USD 320 per participant
✓ inclusive certificate

- 5% Early Bird discount (30 days prior the event)
- 20% if you book all four PV courses!



LOCATION/DURATION

Registration online at
www.TheAcademyOfSolarPowerEducation.com
e-mail: support@inutec-int.com

Advanced Workshop "Design Photovoltaic (PV) Arrays"

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During this session you will learn the design fundamentals without using software. Then we will use some helpful free software tools but also the world leading PV design and analyze software PV-SOL Premium 7.5.

In 2 days, you will learn to know about:

Day One

1 site selection and site survey

- what data are required
- data assembly
- tools and documentation

2 consulting with the customer

- satisfy your customer by answer all his questions right

3 design a flat roof PV-array

- design roles summary
- determine the number of solar modules fitting on the available space by considering i.e. row distance, security distances
- create the bill of material, quotation and Pay Back Period
- design the system with the software PV-Sol Premium 2D planning, obtain climate data, configure the system using roof parameters

4 design insights of inverters

- design roles, max. system Voltage and current, Mpp range
- nominal power ratio
- performance ratio
- influence of orientation and shading

Day Two

5 discover inverter design by using the free software sunny design

- how to choose the best inverter design
- compare the different inverter designs regarding their yield production and the specific inverter prices
- choosing inverters

6 inverter design by using the world leading software PV Sol Premium 7.5

- settings and adjustment of PV Sol Premium 7.5
- group tasks and knowledge transfer into the practice

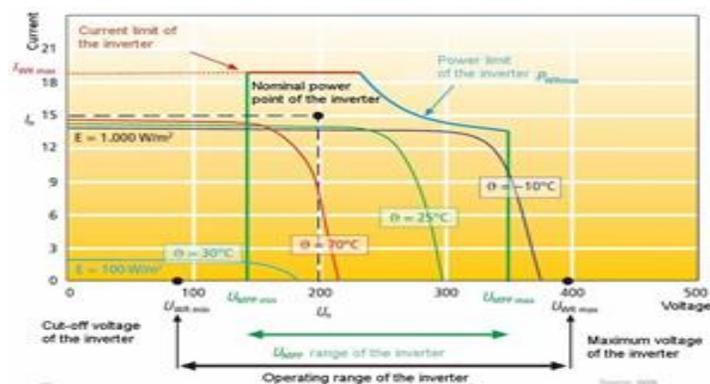
7 design DC- and AC-cable

- using free software tools in designing ac and dc cable
- performing some design tasks and exercises

8 designing PV-Systems using PV*Sol Premium 7.5

- creating 3D objects in plant design, module coverage & interconnection, shading simulation and forecasts, graphics and project pictures.
- choose the right inverter facing technical and financial aspects
- introduction: design a PV-Array with the help of a digital photo

9 brief test and certificate award



Alexander Kaub, founder and lecturer of The Academy and inutec is working successfully for the last 20 years in the field of solar photovoltaic (PV) energy. With his company inutec solarcenter he is a true pioneer who has taken part in all aspects of the solar market. From 2008, 2009 and 2010 his company generated every year around 18 million USD turn-over in Germany. He has impressive experience in designing, planning, installation, training, the growing solar market and operating a business. In 2013 he attended 12 seminars about the latest PV knowledge in Germany to be up to date. He is an Authorized Expert for Photovoltaic Equipment (TÜV).



BRING YOUR LAPTOP AND CHARGER!

Registration:

Online at www.TheAcademyOfSolarPowerEducation.com

e-mail: support@inutec-int.com

Venue:

