



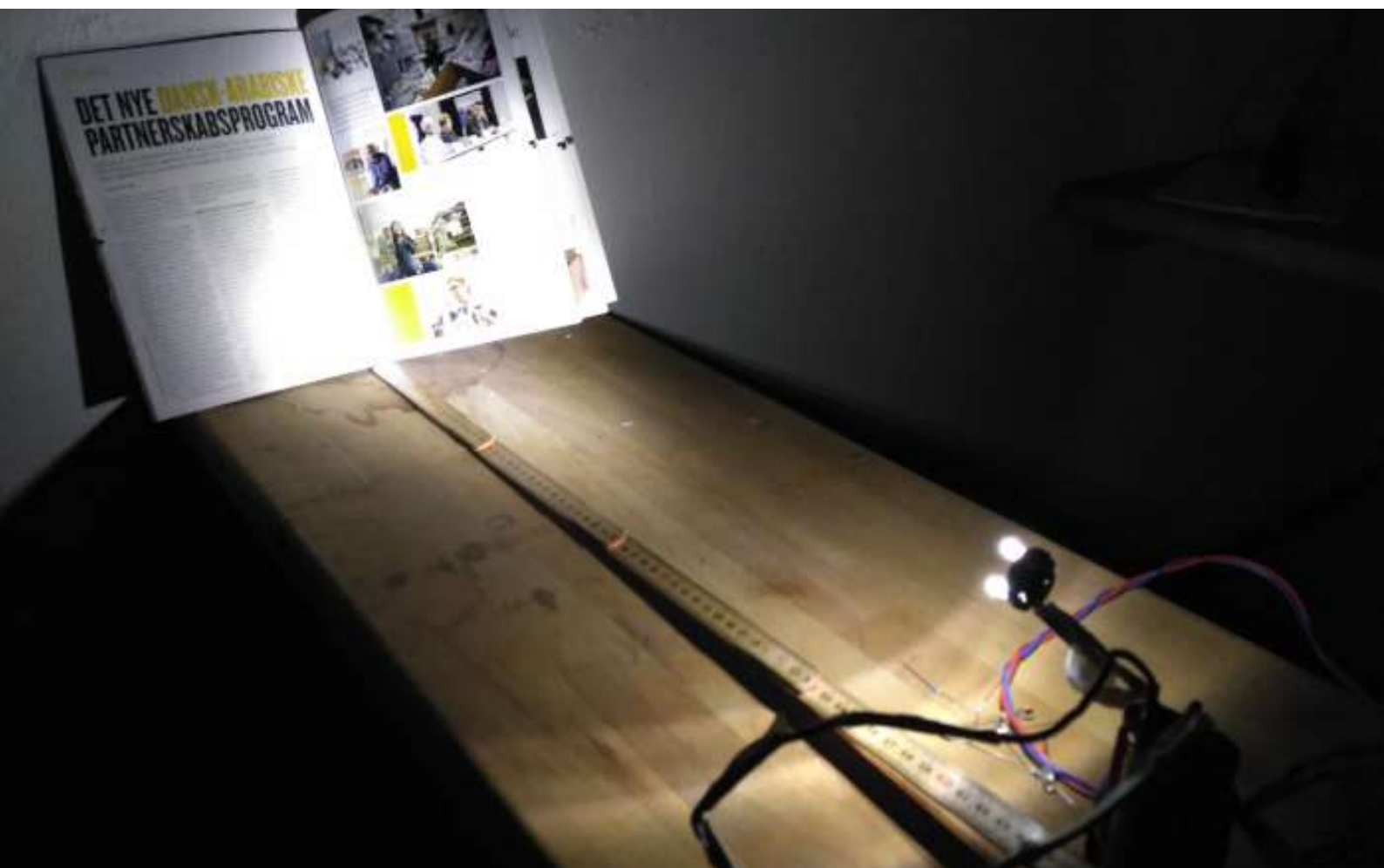
LED: MORE LIGHT TO THE WORLD!

An introductory course on LED technology,
from design to implementation



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Introduction

It's all about Light!

Imagine your life without light...can you?

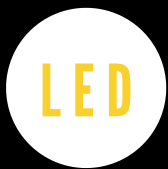
We never realize the importance of light up to the moment we do not have it. Sadly, still too many places in the world do not have access to illumination, meaning that people's lives are limited to when the sun shines.

We want to change that and give **a chance to everybody to access illumination**, which is why this course was established. The course is the result of more than a year of research on **LED technology**, knowledge that we are now ready to share with the world. Our main focus is light in schools (which is why we built a test classroom!), but this does not mean that these solutions cannot be applied for private illumination...we give you the tools, you decide how to use them!

The course, which lasts a week, will focus on all the **theory** needed for developing a cheap and reliable illumination system that can be powered by a little power-bank. However, theory is not enough, because we want the participants not only to be able to build such system, but also to have the needed knowledge to teach others. which is why the course will have a major focus on **practical realization** of these systems.

We believe that the impact of this course is huge: not only it will be possible to spread the knowledge very quickly, thanks to the **Train-the-Trainer approach**, but it will also provide participants with good **job opportunities**, since they will be able to start their own businesses within the illumination sector.





Syllabus

Monday 9 March

- How does an LED work?
- Angles, distances, lux, lumen, candela, resistors and batteries: all what you need to know about establishing an illumination system

Tuesday 10 March

- Continuation of the topics of the first day
- Solar and photovoltaic energy

Wednesday 11 March

- Learn how to solder electronics
- Build an LED lamp

Thursday 12 March

- Multiple diode connection
- Learn how to make the supporting structures

Friday 13 March

- Optimal illumination
- Troubleshooting of the system

Saturday 14 March

- Comparison of different battery solutions
- Power-bank analysis

Sunday 15 March

- Sum-up of the course
- Certificate delivery



Jan Harry Frederiksen

Educated as constructing engineer and energy technician, Jan Harry has a long experience in the teaching world. His research focus for the last two years was on efficient and affordable illumination. Through his researches, he has got a solid knowledge on the topic, which allowed him to develop some very simple, but at the same time, powerful solutions.



Anker Mardal

Educated as an electro-mechanic, he has worked for most of his career in the electrical and electronical sectors, designing electronic circuits and developing wave radio devices. He has a large experience in PV panels, batteries and wind turbines and he is currently the data responsible for Folkecenter's new test station for small wind turbines.



Enrollment Fee

The purpose of the course is to form people on renewable energies, no matter what background do they come from; for this reason, the enrollment fee is designed to be as affordable as possible. We strongly support the participation of young and senior people, but also we want to encourage the presence of women in the renewable energy field and we want to do that by making the program more accessible to them. The table below summarizes the different enrollment fees.

Category	Fee	Equivalent to a discount of:
Normal	650 €	-
Women	550 €	18,2 %
Students ¹	550 €	18,2 %
Retired	550 €	18,2 %

¹ A valid student card or other proof of enrollment should be provided upon registration

The course fee includes:	The course fee does not include:
<ul style="list-style-type: none">• Access to all the lessons of the week• Lunch• VAT (25%)• Shuttle service from/to Ydby Train Station to/from Folkecenter• Invitation letter for visa application, if needed• Final certificate• Subscription to Folkecenter's Alumni Network	<ul style="list-style-type: none">• Board and lodging, either than lunch• Transportation from/to home country to/from Ydby Train Station• Alcoholic drinks during lunch

Please, note that in case the minimum number of students is not reached, the course will be cancelled and the course fee will be refunded to the participants. Please, note that Folkecenter will not refund any other expense the participant has undergone through (e.g. transportation, accommodation, etc.).

In case of cancellation, participants will be informed no later than 3 weeks before the course starts.



Payment Options

It is also possible to pay the course fee in two installments, as shown in the table below.

Category/Deadline	15 January	15 February
Normal	341 €	341 €
Women	289 €	289 €
Students	289 €	289 €
Retired	289 €	289 €





Registration & Cancellation

Registration to the course must be done on www.folkecenterevents.net and the deadline for it is February 15, 2020. Please, note that there is a maximum number of participants: places will be assigned based on the first come/first served policy, In case the minimum participant number is not reached, the course will be cancelled. Participants will be notified latest 3 weeks before the first day of classes and the full course fee will be refunded. Please, note that Folkecenter will not refund any other expense the participant has undergone through (e.g. transportation, accommodation, etc.).

Participants can cancel their registration by writing a mail to dp@folkecenter.dk. Please, note that the following policies apply:

- Cancellation before the 02 January 2020: full refund;
- Cancellation before the 15 January 2020: 50 % refund;
- Cancellations from the 15 January 2020: no refund;





Nordic Folkecenter for Renewable Energy

Our ultimate long term goal is a complete replacement of fossil fuels and atomic power with renewable energies & energy savings while promoting the sustainability, resilience and development of local communities around the world. For this purpose, we have collaborated with local civil society organizations, research and education centers, companies, professionals and governmental authorities from all over the globe for decades.

Among others, we are an active and founding member of the World Wind Energy Association (WWEA), the European Association for Renewable Energy (EUROSOLAR), the European Renewable Energies Federation (EREF) and the International Network for Sustainable Energy (INFORSE). We are also the Danish coordinator of EUROSOLAR and the European Solar Prize.

Our Activities

- Renewable energy training & information
- Transfer of Know-how and Best Practices
- Collaboration with Green Entrepreneurs and SMEs
- Testing & Demonstration
- Research & Development
- Implementation of Renewable Energy in Developing Countries

For more information visit www.folkecenter.net.





Nordic Folkecenter
for Renewable Energy

www.folkecenter.net

*Working for a world running on 100%
renewables since 1983*

