



**Photovoltaik-
System
SUSE**

innovative Solarsysteme für Schule und Ausbildung

**Solarthermiesystem
Wärme von der Sonne**



You are interested in the eco-friendly and inexhaustible energy of the sun, in scientific fundamentals, in the technical and didactic implementation, in experiments for classes, job training, and school projects. You are interested in the economic and ecological relevance of solar energy in the energy revolution in context to additional renewable energy systems.

→ **our NILS-ISFH service for you:**

NILS **A service offer for schools, for teachers, students, parents, for environment and energy projects, scientific and technical training, teacher's training.**

With the **institute for solar energy research**, a state owned GmbH (limited liability company), the state of Lower Saxony is in possession of the first **scientific solar research center** of Northern Germany with the core areas photovoltaics and solar thermal energy established on the initiative of the state as far back as 1987.

NILS- ISFH introduces the possibility to coordinate the educational training in science and technology (**STEM disciplines**) and the environmental work in the areas of **solar energy systems, solar thermal energy and photovoltaics**, and hydrogen technology with a well-resourced **student-teacher-lab**. **NILS- ISFH** offers the following solar services to schools, teachers, students, as well as parents:

Advanced training for teachers

at the ISFH or at your school

- ✓ Solar energy, solar technology, energy transition
 - ✓ Physikalisch-technical basics
 - ✓ Experiments on photovoltaics, solar thermal energy, solar radiation, electromobility
 - ✓ Energy, environment, climate projects global+local
 - ✓ Solar didactics from primary school to secondary school graduation
 - ✓ Conception of teaching units
 - ✓ Self-construction of experimentation devices
- Info: www.sundidactics.de

Student workshops at the ISFH or at your school

- ✓ Solar student projects on energy, environment, , climate change, renewable energy
- ✓ Solar experiments at the NILS-ISFH lab
- ✓ Self construction of experimentation devices
- ✓ Solar energy classes in ISCED level 3
- ✓ Term papers in ISCED level 3
- ✓ Solar study groups
- ✓ Solar systems in schools

ISFH

- ✓ Lectures and tours at the ISFH
- ✓ Insight into the experiment based research work and scientific laboratories
- ✓ Cooperation with scientists at the ISFH

Collaborations and networking

- ✓ Teachers training phase 1 and 2
- ✓ Scholastic and extracurricular environmental projects and energy projects
- ✓ One world projects – Eco-schools
- ✓ Science fairs, contests
- ✓ Collaboration with publishers, craft, industry, universities and fair promoters
- ✓ Education for sustainable development and global learning
- ✓ International solar didactic collaborations



Solar training class for teachers with NILS pv experimentation devices at a school in Ghana

Photovoltaics experiments with solar modules on the roof of the ISFH and in the NILS lab



The learning workshop NILS-ISFH is a collaboration between the ISFH and the Lower Saxon ministry of education, it is a member of the recognized extracurricular learning environments and the BNE (Education for sustainable development program) in Lower Saxony. The staff of the learning workshop NILS consists of 2 ISFH employees (Dr. R. Goslich (Chemist + head of public relations at the ISFH) and W.R. Schanz, Physicist) and 3 delegated teachers: 2 secondary school physics teachers (V. Napp, F. Tittel) and one primary school teacher (M.L. Klinghammer). NILS- ISFH runs a big student-teacher experimentation lab at the ISFH. In that lab experiment based lessons with students as well as training for teachers are conducted. Solar projects can also be conducted off-site of the ISFH at schools in Lower Saxony or Germany-wide.