CEEES

The Confederation of European Environmental Engineering Societies is an independent organisation promoting the advancement of science and technology in the field of environmental engineering and related branches of science. CEEES also co-ordinates the exchange of information and experience in all related fields. It arranges and participates in national and international conferences and seminars on environmental techniques and their application. Its members are active in the establishment of national and international standards and codes of practice. CEEES encourages the member societies to support each others' activities. The professional work is carried out in the Technical Advisory Boards covering mechanical stresses, reliability and environmental stress screening and climatic and pollution effects on equipment and structures.

Aims and Objectives

- Advancement of science and technology in the field of environmental engineering and related branches
- Exchange of information and experiences
- Arranging international symposia and workshops
- Participation and elaboration in Standardization and best practices
- Encouraging members to support each other
- Achieving recognition of environmental issues in product design and manufacture

Contact

Confederation of European Environmental Engineering Societies
CEEES: **www.ceees.org**

Organisation

The CEEES organisation includes a general assembly, president and vice-president, treasurer, secretariat and technical advisory boards.

Membership

The CEEES is the leading organisation among European environmental engineering societies. Personnel and corporate members of the ten National Associations are automatically members of CEEES. We encourage and support participation from other countries with ad-hoc associate memberships to allow the growth of national associations.

Each member society successively holds the presidency and secretariat for a period of two years:

1984 – 1986	SEE	United Kingdom	Bill Roberts
1886 – 1988	ASTE	France	Pierre Lémann
1988 – 1990	GUS	Germany	Hiltmar Schubert
1990 – 1992	SEES	Sweden	Hakan Torstensson
1992 – 1994	SSEE	Switzerland	Marcus Dumelin
1994 – 1996	SEE	United Kingdom	Graham Hooper
1996 – 1998	AITPA	Italy	Gianluigi Angelantoni
1998 – 2000	ASTE	France	Henri Grzeskowiak
2000 – 2002	GUS	Germany	Karl-Friedrich Ziegahn
2002 – 2004	BSTEE	Belgium	Francois Crepain
2004 – 2006	SEES	Sweden	Peter Eriksson
2006 – 2008	SEE	United Kingdom	David Richards
2008 – 2010	KOTEL	Finland	Markku Juntunnen
2010 – 2012	SSEE	Switzerland	Werner Wittberger
2012 – 2014	PLOT	The Netherlands	Harry Roossien
2014 – 2016	GUS	Germany	Thomas Reichert
2016 – 2018	ASTE	France	David Delaux
2018 – 2020	SEES	Sweden	Peter Eriksson
2020 – 2022	GUS	Germany	Thomas Reichert

Members

- Austria: Österreichische Gesellschaft für Umweltsimulation, ÖGUS
- Belgium: Belgian Society of Testing and Environmental Engineering, BSTEE
- Finland: Association for Cooperation for Research and Development of Electronics, KOTEL
- France: Association pour le développement des Sciences et Techniques de l'Environnement, ASTE
- Germany: Gesellschaft für Umweltsimulation e. V., GUS
- Italy: International Association of LAser VElocimetry and non invasive diagnostics, A.I.Ve.La
- Netherlands: Platform Omgevingstechnologie, PLOT
- Switzerland: Swiss Society of Environmental Engineering, SSEE
- Sweden: Swedish Environmental Engineering Society, SEES
- United Kingdom: The Society of Operational Engineers, SOE

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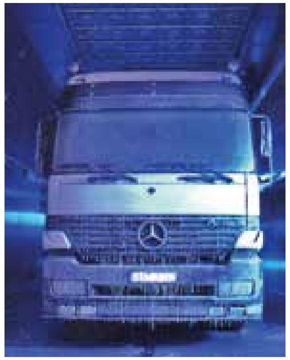

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Environmental Engineering

During their entire life-span, technical products are subjected to a multitude of influences from their environment. These effect their functional ability, durability, quality and reliability. It is therefore technically and economically essential to design and manufacture products in order to withstand the imposed loads to ensure they reliably fulfill their tasks. Environmental engineering examines the interactions between the objects and its environment. Environmental engineering deals in principle with questions of

- functional ability
- durability
- reliability
- compatibility.

Environmental engineering, in its working methods, combines ecology, economy, protection of the environment and product quality, as it applies technical knowledge to ecological problem areas. A longer life-span of products serves the consumer as well as the conservation of resources. It results in a reduction of waste and a more economical approach to energy efficiency and sustainable development. Methods of environmental simulation are, to an increasing extent, also used on non-technical products, e.g. examination of the recent forest decline, damage to ancient monuments and simulation of substance emission into the environment.

Photo Aknowledgements:

Cover EMMAQUA System, ATLAS DSET, New River, Arizona, USA
Coated Electronic Board, KC Produkte, Friolzheim, Germany
Automotive Testing Solutions, Imtech Deutschland GmbH, Hamburg, Germany
Inside Photovoltaic Test Facility, Schneeferner Haus, Garmisch-Partenkirchen, Germany
Shaker Test, MTU Friedrichshafen, Germany
IP Code Test - Water Penetration, Fraunhofer ICT, Pfinztal, Germany

Environmental Factors

Environmental factors are all forms of physical, chemical or other influences on the object under examination, stemming mainly from the direct or indirect surrounding during production, shipping and operation. From the point of view of the object under investigation it is initially irrelevant whether the environmental influences are of natural origin, e.g. earthquake, or of a technical nature, e.g. vibration and shock during transport.

Procedure

Environmental engineering is an interdisciplinary engineering or scientific field working on a very wide scale. Its methods of operation comprise the following steps:

- Determining environmental factors
- Simulating environmental effects under controlled conditions
- Assessing the interaction between environment and object

Environmental engineering based on the optimising principle

- Tailoring of environmental tests and simulations to ensure that a product is sufficiently tested, but not overtested
- Economic considerations for environmental simulation

Expenditure on environmental verification is inevitably offset by better quality, greater reliability and a longer life.

Environmental Laboratories

Environmental engineering requires testing facilities such as climatic test chambers, shaker systems, shock tables, EMC facilities, fumigation chambers, radiation simulators and laboratories for identification of effects, such as scanning electron microscopy, IR-spectroscopy or similar methods. Environmental laboratories can be found in industrial companies, institutes and governmental testing agencies. In general, these are also accessible for external users on commercial base.

Natural	Environmental Loads	Artificial
outdoor exposure	temperature	room climate, engine compartment
tropical climate	humidity	saunas and baths
high and low pressure	atmospheric pressure	transport flights
ocean climate	salt water, salt mist	de-icing salt
ozone	gases	industrial atmosphere
precipitation	water	washing, cleaning
sand and dust	particles	particle emissions
earthquakes	vibration and impact shocks	transportation
sun	radiation	light
wind	sound, impact sound	noise
acid rain	chemicals	cleaning agents
geomagnetic radiation	electromagnetic x-rays	radio transmittersfield
radon	radioactivity	nuclear power plants medical applications
fungi, algae, biofilms	biogenic influences	blood, sweat
termites, rodents	vermin	neozoa