



Volker Hartkopf, Professor of Architecture and Director, Center for Building Performance and Diagnostics

Since 1972, Professor Hartkopf has been teaching and conducting research at Carnegie Mellon University. His work covers a broad range of activities: international initiatives, funded research and professional consulting on building systems integration, advanced technology, building performance, energy conservation, urban revitalization, third-world housing and disaster prevention. He has realized as an architect building projects in Germany, Bangladesh, Peru and the United States. He also led master planning efforts for Volkswagen A.G. and the City of Wolfsburg, Germany; EXPO 2000 Hanover and Berlin-Lichtenberg, Germany.

In 1975, Prof. Hartkopf co-initiated and subsequently directed the first multi-disciplinary program in Architecture, Engineering and Planning in the USA with grants from the National Science Foundation and the building industry. In 1981, he co-founded the Center for Building Performance and Diagnostics (CBPD) at Carnegie Mellon. Between 1981-1985, Prof. Hartkopf developed jointly with Vivian Loftness and Peter A.D. Mill, the Total Building Performance Evaluation Method at Public Works Canada whilst on an Executive Interchange Program. Based on the R & D needs in building performance, Prof. Hartkopf has created and directs the Advanced Building Systems Integration Consortium (ABSIC), comprising leading building industries, six U.S. government agencies, two foreign governmental agencies and Carnegie Mellon. In operation since 1988, the consortium's research and demonstration effort focuses on the impact of advanced technology on the physical, environmental, and social settings in office buildings, towards creating high performance work environments. ABSIC, in cooperation with Carnegie Mellon, has designed, constructed and maintained the Robert L Preger Intelligent Workplace, officially opened in the winter of 1997. Currently a second 10-year strategic plan is being pursued by ABSIC through three long-term R&D projects: the Productivity Protocol, the Building Investment Decision Support Tool and the Building as Power Plant.

The Center for Building Performance and Diagnostics, an NSF/IUCRC, has been instrumental in the application of systems integration concepts, advanced technologies and performance-based decision making for significant building projects in the USA Germany, China, Korea and France. The CBPD team with Prof. Hartkopf's leadership has received numerous prestigious national awards for research. An award winning professor and a frequent keynote speaker in Australia, Europe, Asia and the Americas, he has authored over 100 technical publications. He continues his consulting with such organizations as DaimlerChrysler, Volkswagen, Thyssen Krupp, Electricite de France, U.S. Department of State, U.S. Department of Energy, Siemens and serves on many boards, juries and panels in the United States and abroad.

Currently, Prof. Hartkopf is serving as Chair of the United Nations Environmental Programme's Sustainable Building Construction Initiative Think Tank. He is also leading the Building as Power Plant (BAPP) project at Carnegie Mellon University. The BAPP has been selected by the US Congress as the National Test-bed for Advanced Technology in Building. The 6,500 m² project will be realized on the Carnegie Mellon Campus. The BAPP will integrate advanced energy-effective building technologies with innovative energy generation systems, such that all of the buildings energy needs for heating, cooling, ventilating and lighting, as well as equipment are met on-site, maximizing the use of renewable energies. Broader implementation of its concepts in industry and government here and abroad are expected.