

# 2nd Fraunhofer Innovation and Technology Platform "Sustainable Technologies for the City of the Future" – Mobility, Energy & Water and ICT

31st October, 2012, The Taj West End Hotel, Bangalore

# **Speaker's Profiles**



# Dipl.-Ing. Kristian Arntz Head of Department Laser Material Processing Fraunhofer Institute for Production Technology IPT Aachen

Kristian Arntz studied mechanical engineering and materials technology at the Technical University RWTH Aachen majoring in production technology. He worked as scientist in the Process Technology Department at the Fraunhofer IPT from 2003 to 2009, concentrating on HSC-, micro- and hard milling technology for tool and die making. In 2005 he became head of the business unit "tool and die making" offering research and consulting for companies in that area which today is one of the most recognized institutions for mold and die making research in Europe. Since April 2009, Mr. Arntz has been chief engineer of the department "laser machining" at the Fraunhofer IPT which develops and qualifies efficient manufacturing processes to use laser beam technologies in industrial value chains.



## Dr.-Ing. Dipl.-Wirtsch.-Ing. Sabine Brunswicker MCom Head of Open Innovation Fraunhofer Institute for Administration and Organisation IAO Stuttgart

Dr. Sabine Brunswicker is an expert in technology and innovation management. She is Head of Open innovation at the Fraunhofer Institute for Industrial Engineering, Germany, one of the leading innovation research institutes in Germany and member of the Fraunhofer-Gesellschaft. She was one of the founders of IMP<sup>3</sup>rove, an international standard of innovation management in SMEs. She is a lecturer at European School of Business (ESB), Germany, und an international guest lecturer at universities outside of Europe; e.g. at the Garwood Center for Corporate Innovation, UC Berkeley lead by Prof. Henry Chesbrough. She regularly presents at academic and practitioner conferences and is featured in national and international business press and media; further, she has authored and co-authored several academic articles, studies and book chapters. She also acts as reviewer of academic journals and conferences.







# Prof. Dr.-Ing. Hans-Jörg Bullinger Past President Fraunhofer-Gesellschaft

Hans-Jörg Bullinger is professor of industrial science and technology management at the University of Stuttgart. He founded the Fraunhofer Institute for Industrial Engineering IAO and was ist director for over 20 years before becoming President of the Fraunhofer-Gesellschaft in 2002. Hans-Jörg Bullinger also presents the applied reseach community as an advisor member of Chancellor Merkel's Innovation Dialog and is chaiman of the Research Union Economy-Science, which was founded to implement the German government's high-tech strategy.

# Dipl.-Ing.(FH) Julia Decker M.Eng. Group manager Experimental Durability Validation Plastics Fraunhofer Institute for Structural Durability and System Reliability LBF Darmstadt

In 2005 Julia Decker finished her academic studies with the degree of graduated engineer in the field of plastics engineering at the University of Applied Science in Darmstadt. Afterwards she started to work as a scientific assistant in the department of Lightweight Structures at the Fraunhofer Institute for Structural Durability and System Reliability LBF in Darmstadt. Beside this employment she acquires a second final degree as Master of engineering in 2011 at the University of Applied Science in Darmstadt. Since 2012 Julia Decker is responsible for the group Experimental Durability Validation Plastics at Fraunhofer LBF in Darmstadt.

# Dipl.-Ing. Hans Erhorn Head of department heat technology Fraunhofer Institute of Building Physics Stuttgart, Holzkirchen, Kassel

Hans Erhorn holds a degree in environmental engineering from Hermann Rietschel Institute of Berlin University of Technology. He is a specialist in developing energy concepts for buildings and estates, energy efficient building components and ventilation strategies as well as simulation tools and has been project coordinator of about 150 national and international research, development and demonstration projects within the last 20 years. He was the coordinator of the EU 6th FP project BRITA in PuBs which has ended in 2008. Current involvements in European projects include Concerted Action EPBD (Core theme leader in all 3 phases) and the BUILD UP platform.



# Prof. Dr.-Ing. Holger Hanselka Institute Director Fraunhofer Institute for Structural Durability and System Reliability LBF Darmstadt

Since 2001 Prof. Dr. Hanselka is director of Fraunhofer Institute for Structural Durability and System Reliability LBF in Darmstadt and head of the institute System Reliability and Machine Acoustics (SzM) of TU Darmstadt.Prof. Dr. Holger Hanselka was elected as Vice-President of the TU Darmstadt. Since 2011 he is responsible for knowledge and technology transfer and cooperation activities with industry. Prof. Hanselka is initiator and coordinator of LOEWE-Zentrum AdRIA, a consolidated cooperation of Fraunhofer LBF, 22 professors of TU Darmstadt and Hochschule Darmstadt. From May 2009 till July 2011, he was the main coordinator of the Fraunhofer Project System Research Electromobility, a networking cooperation of 33 Fraunhofer Institutes. Furthermore, Prof. Hanselka is an active member of numerous committees and associations, partly also as a member of the board of directors. He is working as an expert among others for the EU, the BMBF, the AiF and the DFG.

# Anandi Iyer India Representative and Senior Advisor, Fraunhofer-Gesellschaft Bangalore

Anandi Iyer is India Representative and Advisor of the Fraunhofer Gesellschaft, and also Advisor to the Federal Ministry of Education and Research Govt. of Germany. She is the Representative of the German Research Campaign in India titled Germany and India -Strategic Partners for Innovation. She was for more than 5 years the Head of the Indian office of the International Technology Cooperation Network, (INTEC) a programme sponsored by the Ministry of Economic and Technology, Govt. of the Federal Republic of Germany and implemented in 13 countries. Her previous work experience includes the Confederation of Indian Industry (CII) and the German Agency for Technology Cooperation (GTZ) where she was the Deputy Head for India. She serves on the Jury of Indo German Science and Technology Projects. She is also the Chairperson of the European Business Group (EBG, Bangalore Chapter) and a Council member of the Country Council of the EBG. Ms lyer is an MBA from Strathclyde Graduate Business School, UK specializing in Strategy and Business Communication, and has Masters in German Language.



# K. Jairaj IAS (retd) Chairman, IISE, Bangalore

K Jairaj is the Chairman of Indian Institute of Sustainable Enterprise, Bangalore. He is the member of the 1976 batch of the Indian Administrative Service and most recently retired as the Additional Chief Secretary, Govt. of Karnataka. He has served as the Additional Chief Secretary, Energy Department; Managing Director, Bangalore International Airport Ltd.; Managing Director, Karnataka Power Corp. Ltd.; Managing Director, Karnataka Small Scale Industries Development Corporation; Senior Public Sector Management Specialist at the World Bank among other key roles. Mr. Jairaj has a distinguished record of expertise in Infrastructure, Energy, and Urban Development. He is credited with turnarounds of the state energy sector as Managing Director, Karnataka Power Corporation Limited (KPCL); Managing Director of Karnataka State Road Transport Corporation (KSRTC); Managing Director of State Industries Cooperation (KSIDC). He has distinguished academic record with master's degree in Economics from the Delhi School of Economics, MPA from Princeton University and a Master's in Public Administration (MPA) from the Kennedy School, Harvard University where he was a Mason fellow. Mr. Jairaj is an active participant in the management movement. He has been President of Bangalore Management Association (BMA). He served as President of the All India Management Association (AIMA) 1996-97, the first IAS officer to head this institution. The centre for Public Governance at AIMA has been set up at his initiative. The AIMA Public Service Excellence Awards were instituted during his tenure as President.



# Dr. Ingo Karsten German Consul General

Bangalore	
1984-1986	Foreign Office, Diplomatic Institute, Bonn, Germany
1986-1990	German Embassy Tokyo, Head of Consular Section and Cultural Officer
1990-1992	Foreign Office Bonn, Officer, Economic Department
1992-1996	German Embassy Rome, Political Officer
1996-1998	German Embassy Dhaka, Deputy Head of Mission and Chargé d'Affaires a.i.
1998-2001	Foreign Office Berlin, Deputy Head of Division, Economic Department
2001-2004	German Embassy Tokyo, Counsellor, Head of Economic Section
2004-2006	German Embassy Washington D.C., Minister- Counsellor, Deputy Head of Economic Department
2006-2008	Foreign Office Berlin, Head of International

	Economic Division
2008-2011	Foreign Office Berlin, Head of International
	Economic Division
since August	Consul General in Bangalore
2011	



# Dr.-Ing. Thoralf Knote Head of Department Vehicle and Transport System Engineering Fraunhofer Insitute for Transportation and Infrastructure Systems IVI Dresden

Dr.-Ing. Thoralf Knote, age 44, is a Traffic Engineer with a diploma and PhD in Traffic Engineering and Control (public transport and traffic management) of Dresden University of Technology. He has worked for different engineering offices, Dresden University of Technology and Fraunhofer IVI. His areas of expertise are public transport, vehicles concepts for public transport, transportation infrastructure and traffic management. He works as a project manager and head of department within Fraunhofer IVI.



# Dr. rer. nat Ulrich Leiner

# Head of department Interactive Media and Human Factors. Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institute HHI Berlin

Since 2007 Ulrich Leiner is heading the department "Interactive Media and Human Factors" at Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institute in Berlin. The team is focused on new and intuitive man-machine interfaces, such as autostereoscopic 3D-Display technologies, touchless interaction systems and multimedia retrieval. He holds a PhD in applied mathematics from Technical University of Munich on optimal control problems in robotics. He started as a research scientist at Siemens Corporate Technology working on human-machineinteraction topics including computer generated animations, GUI, multimodality, usability and ergonomics. Later at Siemens Mobile and BenQ he managed the user experience department for cell phones and fixed network devices, being responsible for the user interface solutions of over 100 million phones.



#### Dipl.-Inf. Alexander Nouak Head of the Competence Center Identification and Biometrics Fraunhofer Institute for Structural Durability and Sys

# Fraunhofer Institute for Structural Durability and System Reliability Darmstadt

Alexander Nouak is head of the Competence Center "Identification and Biometrics" of the Fraunhofer IGD in Darmstadt, Germany. He is responsible for the acquisition, the management, and the controlling of various applied research and development projects. Alexander Nouak was last coordinator of the project BEST Network funded within the FP7. He is an active member of the DIN NIA 37 working group on biometrics as well as a contributor to the WG5 on "Biometric testing and reporting" of ISO/IEC JTC1 SC37. Alexander Nouak is a certified Common Criteria Evaluator (CC 3.1) and a member of IEEE. As a member of the Gesellschaft für Informatik (GI) he participates in the steering committee of the special group BIOSIG. Alexander Nouak is co-founder and chair of the European Association for Biometrics.



# Dr.-Ing. Ursula Schließmann Head of Department for Environmental Biotechnology and Biochemical Engineering Fraunhofer Institute for Interfacial Engineering and

#### Fraunhofer Institute for Interfacial Engineering and Biotechnology Stuttgart

Dr. Schließmann took over the leadership of the Department for Environmental Biotechnology and Biochemical Engineering at Fraunhofer Institute for Interfacial Engineering and Biotechnology in June 2011. Her current research focuses mainly on anaerobic digestion, energetic use of biomass waste material, membrane technology and wastewater treatment. Dr. Schließmann received her Ph.D. in Membrane Technology from the University of Stuttgart in 2009. Her thesis dealt with the development of a method to reprocess a product, produced by fermentation. She has published approx. 11 publications and holds three filed or granted patents. At present, she gives lectures at the University of Stuttgart and the University of Hohenheim on topics from the fields of Bioenergy and Process Engineering. As regards scientific management, Dr. Schließmann has broad experience in strategic and technologic management, supervision of large groups, project acquisition and management.



# V. Sriram Chief Operating Officer ICRA Management Consulting Services Limited (IMaCS) Chennai

Associate Member of The Institute of Chartered Accountants of India, New Delhi; Licentiate Member of The Institute of Company Secretaries of India, New Delhi; Graduate Member of The Institute of Cost and Work Accountants of India, Calcutta; B. Com. Madras University. Sriram has about 20 years of experience in corporate and infrastructure consulting. Sriram specialises in strategic planning, entry strategies, risk management and project finance. His consulting client profile covers a wide range of organsiations such as Banks and financial institutions, State and Central Govts., Multinationals Institutions, Public Sector Corporations and leading Private Sector Companies. Sriram has significant experience in the infrastructure domain and has worked on a number of projects in the areas of transportation, energy and urban infrastructure. He is currently advising the Government of Tamilnadu on the Infrastructure Vision for the State. He has worked with governments in the area of policy formulation. He has advised a number of public and private organisations in the areas of business restructuring and strategy formulation. He was also part of the Committee on Restructuring Weak banks (Verma Committee).



# Dr.-Ing. Andreas Sterzing Division Director Bulk Metal Forming. Fraunhofer Institute for Machine Tools and Forming Technology IWU Chemnitz

Dr. Andreas Sterzing studied machine tool design at the Chemnitz University of Technology. In 1995 he received his diploma at Ohio State University. Since 1996 Dr. Sterzing has been working as research assistant at the Fraunhofer Institute for Machine Tools and Forming Technology (IWU) in Chemnitz, Germany. In 2005 he graduated at the Chemnitz University of Technology with a degree in Mechanical Engineering. From 2005 to 2007 he gained experience as Head of Department of Sheet Metal Forming and was Chief Engineer at the Fraunhofer IWU in Chemnitz from 2007 on. Since 01.01.2012 Dr. Sterzing is Division Director Bulk Metal Forming.





# Gerhard Stryi-Hipp Coordinator Smart Energy Cities Fraunhofer Institute for Solar Energy Systems ISE Freiburg im Breisgau

Gerhard Stryi-Hipp is a physicist and is working in the solar energy sector since 1992. Until 2008, he was managing director of the German Solar Industry Association BSW-Solar and its predecessors. In 2009 he moved to the Fraunhofer Institute for Solar Energy Systems ISE as Head of Energy Policy and Group Leader Solar Thermal Systems. Since 2011, Gerhard Stryi-Hipp is coordinating the market area »Smart Energy Cities« at Fraunhofer ISE. He is member of the steering committee of the Fraunhofer project »Morgenstadt: City Insights«. Morgenstadt is the name for the systemic research of Fraunhofer for the city of the future. Gerhard Stryi-Hipp is president of the European Technology Platform on Renewable Heating and Cooling since 2009.

# Dr. Aravind Vadiraj Senior Manager in Advanced Engineering Department Ashok Leyland Chennai

Dr. Aravind Vadiraj holds a doctorate degree in the field of metallurgical and materials engineering from IIT Madras. He is currently working as a senior manager in advanced engineering department at Ashok Leyland in India. He has several years of experience in the field of tribology and surface engineering. He is currently involved in new product / process development for commercial vehicles. He has 36 publications, 3 book chapters and 1 patent mostly in the field of tribology. He has also recently authored a book on tribology of biomedical titanium alloys published by NOVA publishers, USA. Apart from tribology, he has also worked in the field of failure analysis, nano-lubricants and heat treatment for. He has received many invitations from several universities for invited talks.



Technology UMSIC Oberhausen	CHT
Since 11/2004	Fraunhofer Institute for Environmental, Safet and Energy Technology UMSICHT; Head of the institute
10/1975-07/1981	Friedrich-Alexander-University Erlangen Studies in the field of Chemical Engineering
01/1981–07/1981	Kraftwerk Union Erlangen. Diploma's thesis: Estimation of project and production costs o closed chemical circle-plant for desalination of ocean water
08/1981–09/1982	Kraftwerk Union Erlangen. Development engineer in the department "Technology oil conversation, desalination of ocean-water"
10/1982-07/1985	Friedrich-Alexander-University Erlangen Chair of Technical Chemistry II (Prof. Dr. S. Peter).Doctor's thesis: Separation of lecithin and soy bean oil with the aid of supercritical extracting agent
08/1985	Friedrich-Alexander-University Erlangen Technical Operation Management of the High-Pressure Laboratory, Chair of Technical Chemistry II (Prof. Dr. R. Steiner)
07/1996	"Habilitation" (= postdoctoral thesis as qualification for professorship) in Technical Chemistry at the Friedrich-Alexander- University Erlangen. Title of thesis: Manufacturing of powder by spraying of gas containing solutions
05/1998	Ruhr-University Bochum, Chair of Process Technology
11/2004	Director of the Fraunhofer Institute for Environmental, Safety, and Energy Technology UMSICHT, Oberhausen

# Fraunhofer Delegates's Short Profiles

DiplIng. Kristian Arntz	Head of Department Laser Material Processing Fraunhofer Institute for Production Technology IPT Aachen kristian.arntz@ipt.fraunhofer.de
Dr. Dirk Berthold	Project Leader Fraunhofer-Institute for Wood Research, Wilhelm-Klauditz-Institut WKI Braunschweig dirk.berthold@wki.fraunhofer.de
Monika Braun	Business Development Manager Asia Fraunhofer-Gesellschaft Munich monika.braun@zv.fraunhofer.de
DrIng. Sabine Brunswicker	Head of Innovation Programmes Fraunhofer Institute for Industrial Engineering IAO Stuttgart sabine.brunswicker@iao.fraunhofer.de
Prof. DrIng. Hans-Jörg Bullinger	Past President Fraunhofer-Gesellschaft Munich
	hans-joerg.bullinger@zv.fraunhofer.de
DiplIng.(FH) Julia Decker M.Eng.	hans-joerg.bullinger@zv.fraunhofer.de Group manager "Experimental Durability Validation Plastics" Fraunhofer Institute for Structural Durability and System Reliability LBF Darmstadt julia.decker@lbf.fraunhofer.de
DiplIng.(FH) Julia Decker M.Eng. Prof. Wolfgang Diehl	Group manager "Experimental Durability Validation Plastics" Fraunhofer Institute for Structural Durability and System Reliability LBF Darmstadt

Dr. Lorenz Granrath	Fraunhofer Representative Japan Fraunhofer Representative Office Japan Tokyo granrath@fraunhofer.jp
Prof. DrIng. Holger Hanselka	Institute Director Fraunhofer Institute for Structural Durability and System Reliability LBF Darmstadt holger.hanselka@lbf.fraunhofer.de
Marianne Hoffmann	Business Development Manager Asia Fraunhofer-Gesellschaft Munich marianne.hoffmann@zv.fraunhofer.de
Anandi Iyer	Fraunhofer Representative and Senior Advisor India Fraunhofer-Gesellschaft Bangalore anandi.iyer@fraunhofer.in
Denise Kaske	Business Development Manager Asia Fraunhofer-Gesellschaft Munich denise.kaske@zv.fraunhofer.de
DrIng. Ida-Bagus Kesawa Narayana	Fraunhofer Representative Indonesia Fraunhofer Representative Office Indonesia Jakarta narayana@zv.fraunhofer.de
Joohwan Kim	Fraunhofer Representative Korea Fraunhofer Representative Office Korea Seoul joohwan.kim@zv.fraunhofer.de
Dr. Raoul Klingner	Director International Business Development Fraunhofer-Gesellschaft Munich raoul.klingner@zv.fraunhofer.de
DrIng. Thoralf Knote	Head of Department Vehicle and Transport System Engineering Fraunhofer Institute for Transportation and Infrastructure IVI thoralf.knote@ivi.fraunhofer.de

Dr. nat. rer. Ulrich Leiner	Head of Department Interactive Media and Human Factors Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institute HHI Berlin ulrich.leiner@hhi.fraunhofer.der
André Neu	Sales Coordinator Fraunhofer Institute for Structural Durability and System Reliability LBF Darmstadt andre.neu@lbf.fraunhofer.de
DiplInf. Alexander Nouak	Head of Department Identification and Biometrics Fraunhofer Institute for Computer Graphics Research IGD Darmstadt alexander.nouak@igd.fraunhofer.de
Swetha Ravi Kumar M. Sc	Project Manager Technology and Market Analytics Fraunhofer Institute for Solar Energy Systems ISE Freiburg im Breisgau swetha.ravi.kumar@ise.fraunhofer.de
DrIng. Ursula Schließmann	Head of Department of Environmental Biotechnology and Biochemical Engi Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB Stuttgart ursula.schliessmann@igb.fraunhofer.de
DrIng. Andreas Sterzing	Senior Head of Department Bulk Metal Forming Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut WKI Braunschweig andreas.sterzing@iwu.fraunhofer.de
Gerhard Stryi-Hipp	Coordinator Smart Energy Cities Fraunhofer Institute for Solar Energy Systems ISE Freiburg im Breisgau gerhard.stryi-hipp@ise.fraunhofer.de
Prof. DrIng. Volker Thole	Head of Department Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut WKI Braunschweig volker.thole@wki.fraunhofer.de
DiplIng. Frank Treppe	Member of the Board of Directors Fraunhofer Institute for Machine Tools and Forming Technology IWU Chemnitz frank.treppe@iwu.fraunhofer.de

Prof. DrIng. Eckhardt Weidner	Institute Director Fraunhofer Institute for Environmental, Safety and Energy Technology UMS Oberhausen eckhard.weidner@umsicht.fraunhofer.de
DrIng. Stephan Wilhelm	Personal Assistant to the President Fraunhofer-Gesellschaft Munich stephan.wilhelm@zv.fraunhofer.de
DiplIng. Franz-Josef Wöstmann	Head of Department Casting Technology and Development of Component Bremen franz-josef.woestmann@ifam.fraunhofer.de
DiplKfm René Zachäus	Scientific Staff Fraunhofer Institute for Machine Tools and Forming Technology IWU Chemnitz rene.zachaeus@iwu.fraunhofer.de
DiplIng. Hongbo Zhang	Representative for Material Technologies Fraunhofer Representative Office Beijing Bejing zhanghb@fraunhofer.cn
Welf Zöller M.A.	Senior Manager PR and Media Fraunhofer-Gesellschaft Munich welf.zoeller@zv.fraunhofer.de