Curriculum Vitae - Dipl.-Ing. Benjamin Jargstorf

1. Family name: Jargstorf

2. First names: Benjamin Hans Jürgen

3. **Nationality:** German 4. **Civil status:** Married

5. **Education:**

Institution [Dates from - Date to]	Degree(s) or Diploma(s) obtained	
1957 – 1966 Altes Gymnasium Oldenburg, Germany	Abitur (Classic School, equals A-Level)	
1970 – 1978 Technical University of Braunschweig (Brunswik), Germany	DiplIng. in electrical engineering (equals M.Sc.)	
1978 – 1979 Free University of Berlin (West), Germany	Sociology of developing countries, social anthropology, Islamic science, graduate student	
1979 University of Cambridge, United Kingdom	Institute of African Studies (King's College), affiliated graduate student	
1980 – 1982 University of Nairobi, Kenya	Faculty of Environmental Sciences, affiliated graduate student	

Language skills: (Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic) 6.

Language	Reading	Speaking	Writing
German	1	1	1
English	1	1	1
Kiswahili	4	3	4
Italian	3	3	3
French	3	3	4
Spanish	2	3	4
Portuguese	2	3	4

7. **Membership of professional bodies:** Bundesverband WindEnergie e.V. (German Wind Energy Association)

Other skills:

8.

Windows, Linux, Mac OS, MS Office, Programming Languages, Wind Resource Assessment Software (WindFarmer, WindPro, WaSP,

WindSim), GIS applications

9. **Present position:** Acting Managing Director, Shareholder of Factor 4 Energy Projects

GmbH, Wismar

10. Years within the firm: 21 years

On-going Projects: Technical Assessment of/Preparation of a PPA for the 26 MW Wind 11.

Park Hope Beach (Guyana) - GIZ

Site Selection and Wind Park Planning at Bay Island, Honduras -

IDB

Engineer according to FIDIC for the Wind Park Baltra/Santa Cruz,

Galápagos (Ecuador) - UNDP

12. Key qualifications:

- Expert for the **utilisation of renewable energies** in developing countries with long-standing experience in wind energy and biomass as well as socio-cultural impacts of these technologies. Wide range of **teaching experiences** with energy-related subjects. Specialist for **energy master plans** and advisor for **energy policy** with special reference to renewable energies. **Energy from biomass** and agricultural residues, carbonisation and gasification of biomass as well as biogas plants and planning of anaerobic waste water treatment plants. Speciality: **resource estimation** for site selection and performance monitoring of utility-type **wind turbines**, both in parallel with isolated as well as interconnected grids. Installation and commissioning of wind and solar plants. **Project planning, financing** and **operation of large wind farms** (MW range). Since 1984 working in 60 developing countries, long-standing experience in the **co-operation with electric utilities, NGOs** and **government bodies**. Evaluation of renewable energy projects and project identification and steering activities.
- Special experience with (small) isolated energy systems on islands (working experience in more than 30 island states), autonomous energy supply systems based on renewable energies, alternative mobility concepts, energy efficiency measures for islands.

13. Specific experience in the region:

Countries (Date from - Date to)				
Fiji, Micronesia, Palau	Monitoring of 9 ACP FM 1, 9 ACP PW 1(Support to the Energy Sector in 5 Pacific Countries), 9 ACP RPA (P.R.I.D.E) and 9 ACP RPA 5 (Reducing Vulnerability of Pacific ACP States) - <i>August to September 2007</i> (charged by PricewaterhouseCoopers Enterprise Advisory, SAFEGE and DMI)			
Fiji	Market survey of small and medium sized Wind Turbines, charged by Pacific Islands Applied Geoscience Commission (SOPAC), with special reference to Pacific Island climatic and technical conditions (< 300 kW, survival speed, weak grids, etc.) in the framework of PIEPSAP, September to October 2007			
Cook Islands	Wind resource assessment for Rarotonga, Cook Islands, charged by Pacific Islands Applied Geoscience Commission (SOPAC), Energy Output Estimation, Weibull and turbulence analysis, etc. <i>August 2008</i>			
Nauru	Wind Power Feasibility Study at Nauru, for SPEP (Secretariat of the Pacific Regional Environment Programme) October 2008 to October 2011, site selection, wind measurement campaign, data evaluation			
Fiji	Assistance in the preparation of programming and implementation documents for the 10th EDF programme: Strengthening the Energy Sector and Community Resilience to Climate Change in Pacific ACP Countries, <i>October to December 2012</i>			

Countries:

Africa: Egypt, Sudan, Tunisia, Morocco, Cape Verde, Gambia, Senegal, Guinea, Kenya, Uganda, Tanzania,

Burundi, Mauritius, Madagascar, Ethiopia, Mali, Burkina Faso, Niger, Benin, Namibia, South Africa (21)

Near East: Jordan, Lebanon (2)

Asia/Pacific: People's Republic of China, Indonesia, Thailand, Philippines, Bangladesh, Palau, Micronesia, Fiji, Nauru

(9)

America: Antigua & Barbuda, USA (Alaska), Peru, Haiti, Argentina, Bolivia, Brazil, Chile, Jamaica, Saint Lucia, Saint

Vincent, Dominica, Nevis/St. Kitts, Grenada, Trinidad and Tobago, Nicaragua, Ecuador, Mexico,

Suriname, Aruba, Curação, Bonarie, US Virgin Islands, Honduras, Guyana (25)

Europe: Germany, Spain, Portugal (Azores, Madeira), Macedonia, Bosnia-Herzegovina (5)

14. Professional experience:

Date from – Date to	Location	Company & Reference Person (name & contact details)	Position	Description
May 2002 to today	Wismar, Germany and Santiago de Chile, Chile	Factor 4 Energy Projects GmbH (see above)	Acting managing director, shareholder	Feasibility Study for a 72 MW Wind Park in Bosnia-Herzegovina (WYG International, EU financing), Project implementation supervisor for a 51 MW wind park in Adama/Nazaret, Ethiopia (HYDROCHINA), Wind measuring campaign and site selection for a 30 MW wind park in Jamaica (IADB funding), Evaluation of wind energy projects in the Caribbean (Jamaica, Antigua, Suriname, Trinidad and Tobago, Barbados, Grenada, Dominica, St. Vincent, Nevis, St. Kitts, St. Lucia, Aruba, Curaçao, Bonaire), Site selection and wind measuring campaign for a 20 MW wind park at Antigua and Barbuda, ENGINEER according to FIDIC for the wind energy project Baltra/Santa Cruz, Galapagos (UNDP), Ecuador, Successful application for a BMU project (International Climate Protection Initiative of the German Ministry for the Environment) "100 % Renewable Energy Island Santa Cruz Galápagos", Ecuador, Tender Evaluation a 10 MW wind park Saö Miguel, Azores (Portugal), Design of a 500 kV grid-parallel photovoltaic plant for the isolated grid of San Pedro de Atacama, Chile, Feasibility Study of a 50 MW wind park for the national utility ELEM in Macedonia (WYG International, EU financing), Tender documents for the UNDP Galapagos wind energy project (Ecuador). Feasibility study wind energy project Nauru (South Pacific), Meta-evaluation of 14 renewable energy and energy efficiency projects of GTZ; Wind Data Evaluation Rarotonga (Cook Islands), Training course "Site Planning and Design of Wind Turbines" at Northwestern Polytechnical University in Xi'an for InWEnt (PR of China), Bid evaluation for wind/diesel system on Robinson Crusoe Island (Chile); Site evaluation for a 20 MW wind park (Wigton Wind Farm Ltd. Jamaica), Training course for utility personnel "Wind Data Evaluation", St. Vincent, Design of a wind/diesel system for the Antarctic Base "Eduardo Frei", Comissión Nacional de Energía (Chile), Backstopping for the dissemination of the improved biomass stove mirt (DGIS, GTZ) Ethiopia, Feasibility Study Review of a UNDP financed wind/diesel system for St. Cr

Date from – Date to	Location	Company & Reference Person (name & contact details)	Position	Description
May 2002 to today (continued)	Wismar, Germany and Santiago de Chile, Chile	Factor 4 Energy Projects GmbH (see above)	Acting managing director, shareholder	Micro-Siting of a 12 MW wind park at the island of S. Miguel, Azores (Portugal), Project appraisal for anaerobic waste water treatment plants optimized for energy generation, Jamaica (UNDP/GTZ/CARICOM). Project planning and supervision of installation of a 1.8 MW wind park Pico (Azores, Portugal), Project appraisal for the TERNA Wind Energy Programme in Ethiopia , (50 MW wind park); Conceptualisation and preparation of a "Mobile Exhibition on Renewable Energy in Ethiopia ", Study "Wind Regimes in Africa", Post-Graduate Course "Grid-Connected Wind Turbines" (PR of China); Wind resource analysis, site selection, micro-siting and project planning for 5 wind parks at Azores (Portugal) for Electricidade dos Açores (EDA) S.A., 21 units with 300 kW each. Project design of a wind diesel system with pumped water storage and a small hydro plant (100 % renewable energy) for the island of Corvo (Azores, Portugal).
January 2001 to April 2002	Addis Ababa, Ethiopia	Addis Ababa University, Faculty for Electrical Engineering (Prof. Dr. Wolde-Ghiorgis)	Lecturer for Energy Conversion Systems (for 4 th grade electrical engineering students)	Conventional, renewable, nuclear power plant technology, hydro power plants, basic laws of energy conversion, energy planning, energy efficiency with special reference to the Ethiopian situation and a development of a sustainable energy system in Ethiopia
January 1996 to December 2000	Bremen and Wismar, Germany	Factor 4 Energy Projects (see above)	Independent consulting engineer	Wind energy project TERNA of Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH in Bangladesh , preparation of implementation of grid-connected multi-MW wind parks at Namibia , installation and monitoring of a 150 kW wind-diesel system at the island of Brava, Cape Verde , methodology of wind park planning (10 – 30 MW) in the NO of Brazil , agricultural residues as a household fuel and fuel wood and charcoal substitution in Sénégal , regional energy master plan for Kaolack, Sénégal , upgrade of three existing and planning of four new wind parks at the Azores, Portugal ; Pilot project "Biocoal from groundnut shells", Sénégal , Evaluation of photovoltaic pumping systems for irrigation of tree nurseries (GTZ) in Ethiopia
April 1991 to December 1995	Bremen, Germany	Tandem Investitions- und Beteiligungsge- sellschaft für ökologische Projekte mbH (see above)	Acting managing director, shareholder	Planning, financing and commissioning wind park projects in Germany and abroad, Bremerhaven (1 MW), Hobendiek (4 MW), preparation of Sachsendingen (10.5 MW) and Williskow (17 MW), wind measuring campaign, environmental permission planning, financing, demonstration wind park at Cearà, Brazil , project planning for a 22 MW wind park at St. Cruz, Bolivia , site selection for Koudia Blanco (55 MW), Morocco , project design for a wind/diesel system at Brava, Cape Verde , successful application for a THERMIE project of EU "Wind Parks in complex Terrain" for Azores, Portugal , wind park planning in the North of Jordan (Hofa), Project evaluation of the Special Energy Programme in Guinea , further activities: planning of decentralised co-generation plants, community waste recycling, anaerobic digesters and other environmental oriented technologies. Co-operation with utilities in Germany and abroad, environmental monitoring, promotion of renewable energy applications and rational use of energy. Feasibility study for a renewable energy/energy efficiency fund planned by International Finance Corporation (IFC) , Washington (together with Roland Berger Management Consultants)

Date from – Date to	Location	Company & Reference Person (name & contact details)	Position	Description
March1984 – March 1991	Bad Homburg, Germany	Decon Deutsche Energie-Consult Ingenieurgesells chaft mbH (DiplIng. Roland Dietrich)	Project engineer, establishing the department of Renewable Energies	Training material for utility workers, Pakistan , rational use in the sugar industry, Ecuador , pyrolysis and carbonisation of agricultural residues, Jamaica , cotton stalks as a household energy fuel in the Sudan , responsible consulting engineer for "Small Wind Energy Converter in Developing Countries" of Kreditanstalt für Wiederaufbau (KfW) , Frankfurt, evaluating a total of 15 countries and installing 49 wind turbines in PR of China, Mauritius, Cape Verde, Madeira, Azores, Argentina, and Haiti , head of project for the supra-national programme "Energy supply of remote hospitals" of GTZ, covering a total of 28 health posts and hospitals in Peru, Uganda, Ethiopia, Tanzania, Madagascar, Mali, Burkina Faso, Niger and Benin , proposals for PV and mini and micro hydro power projects for hospital electricity supplies, household energy for developing countries from carbonisation of agricultural residues, evaluation of projects in Kenya, Burundi and Portugal , renewable energy planning for the Kingdom of Morocco , project definition for the Special Energy Programme for Guinea of GTZ.
1980 - 1982	Nairobi, Kenya	University of Nairobi (Prof. Dr. Ulrich Meffert)	Participant of ASA- Programme (Graduate)	Field study on socio-cultural and economic conditions of technological innovation at the Swahili people in Lamu District, Kenya ; concentrating on the application and utilisation of renewable sources of energy and a design and construction of prototypes from local materials
1979 - 1980	Eschborn, Germany	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (F. von Haugwitz)	Consultant for appropriate technology at GATE (German Appropriate Technology Exchange)	Question- and answer service, handbook "Small Scale Irrigation", handbook on projects of research and development, ecology and environmental protection
1977 - 1979	Bensheim Germany	Kübel Foundation (Erich Spiegel)	Participant of ASA- Programme, continent representative for Africa	Organization and execution of preparatory courses, selection of suitable projects, selection of participants

15. Other relevant information:

Evaluation (Monitoring), Project Planning and Appraisal

- 1979 Handbook of GTZ-supported Research and Development (R&D) Projects (GATE German Appropriate Technology Exchange, GTZ GmbH);
- Project appraisal for a new country project within the framework of the Special Energy Programme (SEP) of GTZ GmbH **Guinea (Conakry)**;
- 1987 Project Appraisal of a 8 unit wind park at Porto Santo, Madeira, **Portugal** for Kreditanstalt für Wiederaufbau, KfW;
- 1987 Project Appraisal of a 8 unit wind park at Santa Maria, Azores, **Portugal** for Kreditanstalt für Wiederaufbau, KfW;
- 1987 Project Appraisal of a 5 unit wind park at Port-de-Paix, **Haiti** for Kreditanstalt für Wiederaufbau, KfW;
- 1987 Project Appraisal of a 4 unit wind park at Rio Mayo, **Argentina** for Kreditanstalt für Wiederaufbau, KfW;
- 1988 Project Appraisal of a 10 unit wind park at Mindelo, Cape Verde for Kreditanstalt für Wiederaufbau, KfW;
- 1988 Project Appraisal of a 4 unit wind park at Rodrigues Island, **Mauritius** for Kreditanstalt für Wiederaufbau, KfW;
- 1989 Project Appraisal of a 5 unit wind park at Hurghada, **Egypt**, for Kreditanstalt für Wiederaufbau, KfW;
- 1989 Final Acceptance of a SF6 substation 66/110 kV in Cairo, **Egypt** for Kreditanstalt für Wiederaufbau, KfW;
- 1989 Project Appraisal of a 6 unit wind park at Providencia Island, **Columbia** for Kreditanstalt für Wiederaufbau, KfW;
- 1989 Project appraisal of the TERNA project component **Morocco** (Technical Expertise for ReNewable Energy Application of GTZ GmbH);
- 1991 Project appraisal of the TERNA project component **Bangladesh** (Technical Expertise for ReNewable Energy Application of GTZ GmbH);
- 2002 Project Evaluation after three years of operation, Photovoltaic Pumping Systems (PVP), of GTZ GmbH, Ethiopia
- 2003 Project appraisal of the TERNA project component **Ethiopia** (Technical Expertise for ReNewable Energy Application of GTZ GmbH);
- 2007 International Backstopping and evaluation of "Sustainable Utilization of Natural Resources for Improved Food Security Program: Energy" of GTZ GmbH, **Ethiopia**
- 2007 Monitoring (= Project Evaluation) of "Support of the Energy Sector in Five ACP Pacific States REP-5), **Micronesia** and **Palau** (South Pacific) for the European Commission;
- External Meta-Evaluation of 14 independently evaluated projects in the field of renewable energy and energy efficiency (RE and EE) for GTZ GmbH, Senegal, Chile, Ethiopia, Nepal, PR of China, Mali, Burkina Faso, SADC, Brazil, Argentina, Turkey, Uganda, Dominican Republic, Pakistan.
- On-going and planned wind power projects in the Caribbean (Jamaica, Antigua, Suriname, Trinidad and Tobago, Barbados, Grenada, Dominica, St. Vincent, Nevis, St. Kitts, St. Lucia, Aruba, Curaçao, Bonaire)

List of Publications (abbreviated)

- 1981 United Nations Conference on New and Renewable Sources of Energy (UNNRSE) at Nairobi, **Kenya**, paper and seminar: "Social Aspects of Energy"
- 1986 European Wind Energy Conference (EWEC 1986), Rome, Italy, paper: "Wind Farm Siting in Developing Countries"
- 1987 Windpower'87, San Francisco, USA, poster presentation: "Monitoring Wind Farms in Developing Countries"
- 1988 6. International Solar Forum, ISES 1988, Berlin, Introductory paper: "Wind Energy in Developing Countries", paper biomass: "Charcoal from Biomass The Experience in the Third World"
- 1989 "To Squander and Gain at the Same Time: Technology and Prestige in a Swahili City State" <u>in:</u> Elisabeth Linnebuhr (Hrsg), Transition and Continuity of Identity in East Africa and Beyond in Memoriam David Miller, Bayreuth 1989 (African Studies)
- 1990 7. International Solar Forum, ISES 1990, Frankfurt, paper: "Wind parks in developing countries experiences of the first year of operation"
- 1991 Husumer Windenergietage, paper: "Betriebserfahrungen Windpark Wremen" (Operational results of a wind park with two different types of turbines)
- 1992 Italian-German Conference on the use of renewable energies in townships and utilities, Freiburg: poster presentation:
 "Installation and Commissioning of the wind park Bremerhaven"; paper: "Private investors and municipalities =
 economically favourable application of renewable energies"
- 1993 "Vom Äquator zum Generator. Grundlagen der Windkraftnutzung." (From Equator to Generator The Basics of Wind Energy Utilisation) <u>in</u>: Thomas Rotarius (Hrsg), Windkraft nutzen. Ratgeber für Technik und Praxis, Cölbe 1993
 - Seminar on Wind Energy in South Europe, Cádiz **Spain**. Together with Carlos Bicudo da Ponte (EdA Azores) paper: "Five years of wind energy utilisation at the Azores. Experiences and further perspectives"
- 1994 German Wind Energy Conference DEWEK 1994; Paper "Windprojekte im Ausland Chancen für Deutsche Hersteller?" (Wind energy projects abroad Export chances for German manufacturers?)
- 1995 Kein Aufwind für Windkraft in Entwicklungsländern?" (No Promotion for Wind Energy in Developing Countries?) in: TU International (Technical University of Berlin), No. 28/29 May 1995
 - UTECH Berlin Umweltechnologieforum 1995, Deutsche Gesellschaft für Windenergie e.V. Die Zukunft der Windenergienutzung bis in das Jahr 2005", paper "Windkraftanlagen Marktentwicklung und Exportchancen" (Wind Turbines Market Development and Export Chances).
 - Italo-German Conference on renewable Energies and Rational Use of Energy in Municipalities and Utilities, Brescia, **Italy**, paper: "The Role of Municipalities in the Planning Procedure of Wind Parks"
 - Husum Wind '95 Kongreß. Paper "Auslandsmärkte und ausgesuchte Ländererfahrungen" (Markets abroad and selected Case Studies)
- 1996 Deutsche Gesellschaft für Windenergie e.V. / Technische Universität Berlin, UTECH Berlin, Paper: "10 Jahre Windkraftnutzung auf den Azoren" (10 Years Wind Energy Utilisation on the Azores)
 - Hannover Fair 1996: Deutscher Kongreß Erneuerbare Energie 96, Paper: "Export von Windkraftanlagen Gegenwärtige Situation und zukünftige Märkte" (Exporting Wind Turbines Current Situation and Future Markets)
 - German Wind Energy Conference DEWEK 1996; paper "High Penetration' Windprojekte Eine Alternative zu Wind/Diesel-Systemen?" "(High Penetration Wind Energy Projects An Alternative to Wind/Diesel Systems?)
- 1999 "Regional Energy Master Plans A Promising Approach for Household Energy Projects" <u>in:</u> BOILING POINT Number 43, Autumn 1999 (Intermediate Technology Development Group GTZ)
- 2000 50th Anniversary of Addis Ababa University, Faculty of Technology, **Ethiopia**, "Wind Energy for Electricity Production Experiences world-wide and Prospects for Ethiopia"
- 2001 "Biocoal from Groundnut Shells An Industrial Approach to Household Energy in Senegal" in: BOILING POINT Number 46 Autumn 2001

jointly with Trudy Könemund "Der Mirt Stove in Äthiopien" in: entwicklung+ländlicher raum, Heft 2/2002, p. 24 –27 (The Mirt energy-saving stove in Ethiopia)

"Biocoal from Groundnut Shells in Senegal" in: PYROLYSIS NEWS, United Kingdom, No. 8, 2002

National Energy Conference **Ethiopia**, paper: "Wind Energy for Electricity Production – Experiences World-wide and Prospects for Ethiopia"

"13 Monate im Jahr: Wind und Wasser in Äthiopien" <u>in:</u> ERNEUERBARE ENERGIEN Nr. 9 September (13 Months per Year: Wind and Water Power in Ethiopia)

"Sonnenkraft Nutzen! Importzölle und hohe Preise behindern regenerative Energien am Horn von Afrika" <u>in:</u> ERNEUERBARE ENERGIEN Nr. 10 October (Use Solar Power! Import Taxes and high Prices hinder Application of Renewable Energies at the Horn of Africa)

- 2003 World Wind Energy Conference (WWEC 2003) Cape Town, **South Africa**, Panel presentation: "Wind Regimes in Africa a comparative Evaluation of Wind Data", November 2003
- 2004 "Renewable Energy & Development" Brochure to accompany the Mobile Exhibition on Renewable Energy in Ethiopia organized by GTZ / EREDPC, Addis Ababa, **Ethiopia**, May 2004

"Bio-coal from Groundnut Shells - An Example for Sustainable Bio-energy Use" paper International Workshop LAMNET "Bio-energy for a sustainable Development", Viña del Mar - **Chile**

"Isolated Grids and Wind Power Integration", key note speech at the seminar "Wind Power Development in the Caribbean", organized by CARILEC/CREDP/GTZ, **Jamaica**

"Energy of the Wind – The Portuguese Azores get more Enercon Turbines", in: WINDBLATT, Issue 05/2004, p. 8-9

2005 jointly with Eng^o Luís Barreiro Gomes, Empresa de Electricidade e Gaz (EEG) for the World Wind Energy Conference (WWEC 2005) Melbourne, **Australia**, "High Wind Resources and High Penetration – An Overview of 20 Years of Wind Energy Activities at the Azores Archipelago, Portugal"

World Wind Energy Conference (WWEC 2005) Melbourne, **Australia**, "Key Elements of a Wind Energy Development Strategy for Africa and Other Developing Economies"

- 2006 3rd Caribbean Environmental Forum, "Chances and Challenges for Wind Power in the Caribbean", **Antigua**
- 2007 UNESCO Workshop "Renewable Energy in the Caribbean: Reality and Perspectives", Tobago **Trinidad and Tobago**, key-note speaker "Wind Energy Perspectives in the Caribbean what works and why?"
- 2008 "Comparison Between the Operating San Cristóbal & Planned Baltra/Santa Cruz Wind-Diesel Systems in the Galápagos Islands" and "New Wind/Diesel System for the Chilean Antarctic Base Eduardo Frei" papers presented at the Wind/Diesel Workshop, Anchorage (**Alaska, USA**)

Organisation of the Workshop "Project Approach and Training Needs for the 100 % Renewable Energy Galápagos Islands Project (ERGAL) 'Cero Combustibles Fósiles en Galápagos', Wind/Diesel Systems – Operation Modes, Replacing Fossil Fuels in the Transport Sector – Technology and Efficiency of Electric Vehicles etc., Guayaquil, **Ecuador**,

Wind Expo LAWEA 2008 (Latin American Wind Energy Association), Guadalajara, **Mexico**, "Planning Wind Energy Projects in LA and the Caribbean - General Approach and Practical Examples"

GreenLine / Heinrich-Böll Stiftung, National Workshop Practical options for wind energy generation – Introduction to Wind Technology, Beirut, **Lebanon**

2009 together with Carlos Jácome (ERGAL), "100 % Renewable Energy Islands Galápagos: the Concept of 'Cero Combustibles Fósiles' and the Wind Energy Project of Santa Cruz/Baltra (Republic of Ecuador)", paper at the World Wind Energy Conference 2009, Jeju, **Korea** (WWEC 2009)

ad hoc paper "Technology and Efficiency of Electric Vehicles" at the World Wind Energy Conference 2009, Jeju, **Korea** (WWEC 2009)

Chinese-German Expert Meeting on Wind Power Technology, "Grid Connection Requirements for Wind Turbines – Practical Experiences and the Application of Standards and Grid Codes" and "Reality that refuses to be standardized – Wind Turbines and Tropical Whirl Storms", Berlin

Expert Meeting organized by the Chinese Energy Agency and InWEnt gGmbH in Beijing, **PR of China**, "Professional Wind Park Planning and Operation"

Training Programme 'Control Systems and Grid Connection' jointly organized by the Northwestern Polytechnic University and InWEnt gGmbH in Xi'an, **PR of China**, "Generator Concepts with special Reference to Direct Drive Wind Turbines"

2010 Seminar on Energy Policy and Mitigation Measures against Climate Change jointly organized by the Northwestern Polytechnic University and InWEnt gGmbH in Xi'an, **PR of China**, "The Green Paradox – does it exist?"

International Climate Protection Initiative of the BMU (Germany) – Workshop "Alternative Mobility Concepts for Galápagos", presentations "Approach for 100 % Renewable Energy Galápagos Islands" and "Electro Mobility Basics for Galápagos", **Ecuador**

5th Caribbean Sustainable Energy Forum, **Jamaica**, presentation "Are Hurricanes a Constraint to Wind Development in the Caribbean?"

International Symposium ENERGETICS 2010, **Republic of Macedonia**, with Nevenka Jakimova Filipovska and Ivan Trpeski, "ПОТЕНЦИЈАЛОТ НА ВЕТЕР ЗА ПРОИЗВОДСТВО НА ЕЛЕКТРИЧНА ЕНЕРГИЈА ВО РМ СО ОСВРТ НА ВАР-ДАРСКАТАДОЛИНА (Wind Potential for Electricity Production in the Republic of Macedonia with an Overview of the Vardar River Valley)

2011 Anton de Kom Universiteit van Suriname, Wind Energy Concept Seminar, **Suriname**, "Is Wind Energy Possible in Suriname – Examples with Wind Data from Nieuw Nickerie and Galibi"

Physikalisch-Technische Bundesanstalt PTB, Quality Infrastructure in Energy Efficiency and Renewable Energies in Latin America and the Caribbean, Petropolis, **Brazil**, "Standards and Quality Control in the Wind Energy Industry"

Renewable Energy Forum 2011, CARILEC Caribbean Electric Utilities, "Caribbean Wind Energy Initiative – Overview of Activities and Current Status", St. Thomas, **US Virgin Islands**

2013 World Wind Energy Conference 2013 – Havana, **Cuba**, presentation "Wind Energy Development in the Caribbean"