CV CRISTIANO RICHERS DECEMBER 2022

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Professional translator in Brazilian Portuguese, German and English

Personal Profile

- Swiss and Brazilian nationality, born in São Paulo on January 17th, 1958
- Brought up in a bilingual (Brazilian / German) environment, with extensive international experience, having studied and worked in Switzerland from 1984 to 1997. Lived in India from 2015 to 2017 and now again in Switzerland.
- Technical background as Mechanical, Industrial and Energy Engineer.

Languages

- Native / Bilingual proficiency in Brazilian Portuguese and German
- Full professional proficiency in English

General Professional Profile

- Active in the energy and environment areas for about 26 years in Brazil (13 years) and in Switzerland (13 years), developing energy technologies and conducting feasibility studies for small and medium sized energy systems (100 kW to 20 MW)
- Recognized Energy Professional (Anerkannte Energiefachperson für eine Gebäudemodernisierung mit Konzept) by the Energy Agency of St. Gallen (Energieagentur St. Gallen) since September 2021
- Development and application of energy conversion technologies: internal combustion engines utilizing various types of fuels (gasoline, diesel oil, ethanol, gases); external combustion engines of the Stirling type; wood gasifiers; biogas plants; thermal solar collectors; photovoltaic panels; heat pumps, absorption equipment
- Development of market studies and feasibility studies for co-generation systems in Switzerland and in Brazil
- Research and studies on environmental issues for private companies and the Swiss government
- Work experience acquired in large companies and as an independent consultant
- IT Experience: Implementation of microcomputer infrastructures in small and medium-sized companies (Microsoft and Macintosh environments); RETScreen Clean Energy Management Software, MS Office, installation of networks; programming of applications with database programs; development of multimedia applications for technical training; teaching end-users on how to use standard computer applications.

Higher Education

- CAS Sustainable Smart Cities & Regions Data, Energy and Mobility at ZHAW / Zurich University of Applied Sciences - 2022
- CAS Energetische Betriebsoptimierung at HSLU / Lucerne University of Applied Sciences and Arts – 2022

- Post-Graduate course in Energy Engineering at FHNW / University of Applied Sciences Northwestern Switzerland - 1986
- Bachelor's degree in Mechanical / Industrial Engineering at FEI / Faculdade de Engenharia Industrial, São Paulo - 1983

Specialization Courses

- Gebäudemodernisierung mit Konzept, Energieagentur St. Gallen, September 2021
- Einführungskurs «SIA 380/1 Ausgabe 2016: Heizwärmebedarf», FEZ Forum Energie Zürich October 2021.
- Minergie und Monitoring: Energie im Gebäude klug messen, Minergie, December 2021
- Certified RETScreen® Expert (CRE), CIET Canadian Institute for Energy Training, May 2021 In recognition of which the participant earns 1.8 Continuing Education Units, and 4 Canadian Sustainable Energy Practitioners (CSEP) points.
- Sivananda Yoga Teachers Training Course (TTC) at Meenakshi Ashram near Madurai January February 2014 (30 days)

Employment History

- since Manager at Richers Consulting in Amden, Switzerland. New individual company to do Aug. '21 consultancy in the areas of renewable energies, energy conservation, energy efficiency and environmental projects.
- May '15 Volunteer in the international community of Auroville, India.
- Mar. '17 Participated in Governance activities in the community.
- Sep. '97 Independent consultant in Brazil, on energy systems and environment.
- Feb. '15 Managing Partner of DASAG Engenharia Ltda.

Main projects:

- May. '03 Chief Technical Advisor CTA in Brazil for the Swiss Cleaner Production Programme
- Feb. '06 The Swiss government has an international program for the creation of Cleaner Production Centres – CPCs in various developing countries. In Brazil it had a cooperation agreement with SENAI in the state of São Paulo and since January 2005 also with SEBRAE in the state of Paraiba for the transfer of know-how in about Cleaner Production - CP. As CTA I represented the Swiss Reference Centre locally, giving support to the CPCs in technical, market and administrative aspects.

Represented the Swiss Chamber of Commerce at Carbontrade, the Committee on Carbon Trade of the International Chambers of Commerce in São Paulo.

- Feb. '00 Market Development Consultant for the German company Babcock Borsig Power
- Sep. '02 Products included a full range of small to very large steam generators which burn any type of solid and gaseous fuels, fossil fuels, biomass and waste gases, as well as heat recovery steam generators for gas turbines and gas cleaning systems for large power plants.
- Sep. '98 Market Development and Technical Consultant to the Portuguese IPP CGDe
- Jul. '99 The company Companhia Geral de Distribuição Eléctrica from Portugal was specifically constituted to invest in medium-sized (4 to 20 MW) cogeneration projects in Brazil. Was responsible for the identification of potential co-generation opportunities based on natural gas and biomass, for the technical evaluation and selection of the most suitable technologies for the projects, for the contacts with the clients as well as with national and

international equipment suppliers. Participated in the elaboration of the contracts with clients and suppliers.

May '89 - Independent consultant on energy systems and technologies, environment and in compu-Aug. '97 ting, in Switzerland.

Managing partner of Richers AG and Richers Consulting

- Jan. '95 Cooperation with the Swiss company DASAG Energy Engineering Ltd. managed by
- Aug. '97 Dr. Hari Sharan on various projects involving renewable energies and the environment.

Joint Implementation: Research and writing of a report to the Swiss government on the global activities in JI projects. The conclusions and recommendations of the report were used as a reference to set up the Swiss JI secretariat, define the policies and projects to be followed during the pilot phase until the year 2000. Participated in the second Conference of the Parties (CoP2) in Geneva as a member of the Swiss delegation.

Wood Gasification: Participated in a pilot project co-financed by the Swiss Department of Energy to adapt an Indian wood gasifier (IISc – DASAG) to the European market. Performed feasibility studies for the use of co-generation projects using wood gasification in Switzerland and India.

Rice Husks: Technical and financial analysis of various systems to utilize rice husks as a source of energy and its ashes as a source of building materials.

Stirling Engines: Dimensioning and thermodynamic evaluation of various heater head and gas burner technologies for a Stirling engine. The project was financed by the Swiss government, the company SIG and the Swiss Natural Gas Association, with the aim of developing a small cogeneration equipment based on the Stirling engine.

Energie 2000: Collection of data about small and large cogeneration systems in Switzerland to build a database for the Program Energy 2000 of the Swiss Department of Energy. Development and programming of a database to collect and analyze information on the urban waste incineration facilities, which is being used for statistical purposes and the definition of the Swiss energy development policy.

SEBASOL: Member of the board of the regional office for Basle of SEBASOL (Selbstbau von Solaranlagen), a Swiss organization that promotes the construction of solar heating systems in private homes, assisting the owners in the assembly and installation of the equipment at low cost.

- Jan. '94 Contract with Dr. Eicher + Pauli AG, one of the largest Energy Engineering Companies in Dec. '94 Switzerland, with offices in five different Swiss cities. Responsible for upgrading their computer infrastructure and connect the networks of all the offices via ISDN.
- Aug. '91 Cooperation with the Swiss company Flury Informatik to develop and implement
- Dec. '93 commercial database applications. Gave classes on computing and the use of basic computer applications. Consulted small and medium sized companies on the installation and use of microcomputer systems and applications.
- Aug. '89 Contract with Metex AG in Zurich, a company specialized on technical documentation,
- Jul. '91 to set up and manage a new multimedia department for the production of electronic documentation and the development of Computer Based Training CBT applications. Developed a large multimedia CBT for the company Alusuisse, which was used worldwide to train blue collar employees in the aluminum factories.

- May '87- Project manager for energy and environment related projects at Migros-Genossenschafts
- Apr. '89 -Bund in Zurich (largest retail company in Switzerland). Coordinated various energy savings projects in supermarkets and company-owned industries; developed an environment database to collect data and evaluate the various environmental impacts of the companies' activities, including life cycle assessments.
- Dec. '84 Project Engineer in the engineering company Hochstrasser Consulting AG in Zurich.
- Oct. '85 Worked on projects for air conditioning and central heating systems for homes and commercial buildings. Implemented a CAD system (AutoCAD) in the company.
- Sep. '82 Development Engineer at the Engine Engineering Department of Mercedes Benz do
- Dec. '83 Brasil. Development of gas, diesel and ethanol engines on test benches. Responsible for the development of the first gas engine of the company in Brazil (pilot project in association with IPT, SABESP and CMTC).

Publications

- "Activities Implemented Jointly (AIJ): A Review of International Activities and a Study of Policies and Strategies for a Swiss Pilot Phase Programme"; study developed for the Swiss Government, represented by the Ministry for Environment - BUWAL and by the Swiss Development Co-Operation Agency - DEZA; co-authored with Dr. H. N. Sharan
- "IISc-DASAG downdraft gasifiers for cogeneration plants"; co-authored with Dr. H. Sharan and P. Giordano
- Chapter on the "Brazilian Market for Renewable Energies" of the "2nd. German-Brazilian Guide of Environmental Technologies", published by the German-Brazilian Chamber of Commerce.
- Chapter on the "Brazilian Market for Small Hydro Power Plants" in a publication of the German F.A.Z Institut on "Renewable Energies in Emerging Markets"

Presentations held

- Rio +5 Forum, Rio de Janeiro, March 1997: "South-South-North AIJ Project Using Ethanol from Brazil in the Indian Transportation Sector".
- 1st Brazilian-German Congress on Renewable Energies e Water Resources, Fortaleza, September 1999: "IRPPs – Independent Rural Power Producers". Presentation of a program that is being developed in India to generate electricity in small villages with wood gasification power plants.
- Seminar "Aspectos Práticos e Legais no Tratamento e Disposição de Resíduos Sólidos Industriais", São Paulo, April 2001: "Incineração de Lixo: Viabilidade Ambiental e Econômica".

Memberships

- SSES Schweizerische Vereinigung für Sonnenenergie
- Swiss Engineering STV Berufsverband der Ingenieure und Architekten
- Alumni FHNW Technik Switzerland
- CREA SP Regional Council of Engineering, Architecture and Agronomy of the state of São Paulo, Brazil as Industrial Engineer

Online profiles

- LinkedIn: <u>https://www.linkedin.com/in/cristianorichers/</u>
- **ProZ:** <u>https://www.proz.com/profile/1663946</u>