# Researcher, Project Manager Lecturer, Author Environmental Advisor

### SKILLS \_\_\_\_

### Researcher

#### Architecture Laboratory of Toulouse – France 2005/2014

Research project manager across several fields (urbanism, green buildings construction, bio-based materials usages, refurbishment...)

- TERRACREA project: bio-resources availability prospective study for building construction, refurbishment & maintenance for the next forty years:
  - Population growth, building morphology modelling, current bio-products market shares, climate change impacts on forestry and agriculture productivity, land usage competition, etc.
  - Prospective studies for 2030 / 2050
  - Consulting for building and agricultural management policies.
- DISPERSION project: Statistical studies on environmental impact values of building materials, national and international performance comparison of LCA (Life Cycle Analysis)
- HYGROBA project: old building thermal insulation studies, vapour transfer effects, humidity management, risk assessment; written guide for building professionals.
- RAPPE project: affordable building refurbishment with bio-based materials, high level energy performance and low cost combination research.
- PEREN project: green office building: design & developmental studies and propositions (research team of industry professionals, researchers, architects).
- TERCRUSO project: technical and methodological framework allowing the usage of rammed earth for the construction of contemporary buildings.

**GEODE** (Geography of Environment laboratory) / **INRIA** (Research laboratory dedicated to digital science and technology) / **CNES** (National Centre for Space Studies) – 1992/1994

• Multidisciplinary PhD "DTM – Digital Terrain Models Automatic treatments for geomorphological analysis applications".

### Environmental Consultant & manager of Eco-Etudes 2005-2014

- Building construction or refurbishment support: building materials selection according to high thermal and environmental standards.
  - Expansion of "Orly Paris- France" airport environmental research, Building Information Modelling (BIM), materials and components LCA (Life Cycle Analysis)
  - Development of new green office building for ECOCERT Company.
  - o Development of green school for children with special needs.
  - Affordable & sustainable green cooperative housing development
- New building regulation edition for natural resources management
- Advisor for French Environment Secretary on bio-based materials usage into building construction projects.
- Technical support for businesses with development of new products (performance measure and certification, insurability checks)

# Project manager

- **CNES French National Centre for Space Studies** 1990/1992
  - Software development manager of SPOT 4 satellite ground system programming managing tools.

**Spot-Image – France** 1988/1990 and 1994/2005

- Geographic Information Systems (GIS) software development (2 M€) Manager for SPOT 5 satellite exploitation.
- Remote sensing and precision farming applications development manager.
- Advisor for Geomatics and Geosciences compliance.
- Satellite engineer manager for Asia and Pacific remote sensing survey.

Movimento (currently in "Veolia" company) 2005/2008

- Manager of the « VeloWay » automatic bike rental system.
  - Global system conception, technical essay specification, prototypes conception and construction software, electronic and mechanical devices conception.
  - Patents deposit

# Lecturer (Toulouse – France Architecture School, Albi – France Engineering School) - 2005/2014

- Architecture and sustainable development International Master.
- Green buildings, green construction techniques.
- Building construction, renovation or refurbishment and sustainable development considerations.
- Low energy consumption building conception.
- Contemporary construction and bio-based materials.
- Environmental performance of buildings.

Trainer (Green buildings & construction techniques) architects, engineers, craftsmen 2005/2014

### **Book Author**

- Published Author of: « La construction en paille » (Building with straw) Ed. Terre vivante 2012.
- Co-writer of: «Conception Architecturale et RT2012 » (new building conception in regards to new construction code). Ed. Le Moniteur 2013.
- Coordinator of the French straw bale building code (approved by the French Building Secretary) Ed. Le Moniteur 2011.
- Co-writer of the book « Guide environnement et ville durable » Editions Weka: (Environmental guide for sustainable cities).
- Author of: "Concevoir et construire des bâtiments avec des ressources locales" (Conception and construction of buildings with local resources) Ed. Le Moniteur in progress for completion in 2016.

# Software writer - 2005/2014

- "COCON" Buildings LCA (Life Cycle Analysis) studies.
- "Smart-Builder" Building Information Modelling (BIM IFC) tool for thermal and environmental studies (in progress).

# QUALIFICATIONS\_

- PhD in Geography and Urban Development Toulouse University France.
- Specific certificate qualification « L'architecte et la HQE Haute Qualité Environnementale » The architect and the sustainable development.
- BSc Geography; Urban Planning, Economics, Biogeography, Geomorphology & Remote Sensing GIS Toulouse University France

# LANGUAGES\_