► CURRICULUM VITAE

GUY COURBEBAISSE
CREATIS - INSA Lyon
guy.courbebaisse@insa-lyon.fr
http://www.creatis.insa-lyon.fr/~courbebaisse

Senior Project Leader – Scientific Researcher

- **Domain** Biomedical Imaging Research Centre - CREATIS Laboratory
- **Researcher** (https://scholar.google.com/citations?user=MLKHlTMAAAAJ&hl=fr).
- **Domains of expertise**: **Signal and Image Processing, Bio-engineering, Physics, IA.**

► *Academic degrees and qualification*

- **Qualification for supervising Research - HDR** of Jean Monnet University - 2002.
- **Ph.D. 'Signal Processing'** of Grenoble Institute of Technology – INPG - 1994.
- **Master Engineer 'Physics' of ICPI – ESCPE** - Lyon - 1990.

► *Awards*

- **Knight's title in the Order of the Academic Palms**, 2017.
- **Mencion de Honor**, Pontificia Universad Javeriana (University of Bogota), 2015.
- Nominated to '**Etoiles de l'Europe 2014'** as coordinator of the EU project Thrombus.

► *Key events*

- 2015-2020: **Main partner of the French ANR Life-Health-Well-being LBSMI project**.
- 2010-2014: **PI, Coordinator of the Virtual Physiological Human EU Project 'Thrombus'.**
- 2007, 2011 & 2016**: Qualification in functions of Professor of University** (ICT).
- Since 2008: **Scientific Expert: ANR-NSF, BMBF, FNRS, e-grantDK, H2020, EUREKA**
- June 2010**: Visiting Professor at the University of Los Andes - Bogota (Bio-Engineering).**
- 2005-2010: **COST P19 MC's member:** 'Multiscale Modelling of bio-Materials'.
- June-December 2005: **Visiting Professor at EPFL** – Laboratory of Numerical Engineering.
- 1984-2019: **Teaching more than 5000 hours courses** (Informatics, math., signal, physics…).

►*Ph.D. and HDR topics*

- **11th June 2002: HDR :** Signal Processing and Image Processing dedicated to the analysis and modelling of complex phenomena, **HDR**, **University Jean Monnet St-Etienne,** (**Jury** : Pr. J.L.Lacoume '61', Pr. B.Torrésani '61', Pr. M.Deville '60', Pr. Y.Meyer '25', Pr.P.Bourgin '60', Pr.D.Jeulin '61', Pr. M.Jourlin '61', Pr. G.Flouzat '61').
- **30th June 1994: Ph.D. Thesis:** Time-Frequency Distributions and Time-Scale Distributions - Contributions to the field of thermal machines**, Grenobble Institute of Technology (INPG), (Jury:** J.L.Lacoume '61', B. Torrésani '61', A.Grossmann 'Physics', Y.Meyer '25', B.Escudié '61', A.Haupais '60').

► *Membership of scientific organizations*

LABEX PRIMES (https://primes.universite-lyon.fr/labex-primes/en/), Virtual Physiological Human Institute (https://www.vph-institute.org/), **GDR STIC-Santé CNRS**, **ELyT Lab LIA CNRS (2012-2016)**.

►*Journals review*

- **EMBC (**IEEE), **JME** (INDAWI), **Entropy J.** (MDPI), **Biomechanics J.** (Elsevier).

► EMPLOYMENT HISTORY

Since 2005: INSA Lyon French Engineering School – CREATIS - Lyon

Domain: Medical Imaging – Signal Processing and Image Processing - Modelling of life.

Research focus : Intracranial Aneurysms Segmentation, inverse problem for the estimation of the mechanical properties of blood vessels (Matlab), Numerical Simulation 'Lattice Boltzmann Method' (C++, HPC, GPU), Time-Frequency distributions, Wavelet transform.

Position: PI and Scientific Coordinator of European Projects such as Thrombus (FP7-ICT STREP) with a funding of 3 M€, head of transfer (SNCF, Michelin…), member of the project of the French National Research Agency: LBSMI and CREATIS industrial transfer leader.

Management: Ph.D. students, Post-Doc and Engineers.

Expert/Teaching: Industrial and academic scientific expert, lecturer (Signal Processing and Image Processing and Informatics).

June 1995 - Dec. 2004: ESP - Polymer Processing French Engineering School - Oyonnax.

Domain: Polymer Processing - Optimization of injection moulding process.

Research focus: By mathematical morphology and geodesic distance implementation, modelling of a free surface propagation process, Numerical Simulation (C++, Matlab, real time computation), instrumentation (Instantaneous Thermal Flow sensors) for moulds, and the associated Signal Processing (Assembly language, HP VEE, Labview).

Position : Computer Science Project Manager, Designer of the informatics network and computer centre at ESP, ESP PI of the RNTL project 'OPENPLAST' «Grid Computing for Polymer Processing» - Optimization-Numerical Simulation of the injection moulding process.

Management: 1 Associate Professor, 2 Ph.D. and 4 Master Engineers.

Expert/Teaching: Industrial expert and master & high graduate engineer school vacations at ESP, ISTASE and Saint-Etienne University: Signal Processing, Applied Mathematics…

▫ 1990-1995: CRMT - Private Thermal Machine Research Center - SA Lyon.

Domain: Thermal machine, spark ignition engine, gasoil motor, combustion, injection.

Research focus : By optical system, Signal Processing and Image Processing characterization of the turbulence within gasoil motors and associated injection pumps (Laser Doppler Anemometry, High Speed Cinematography, Schieleren system, Light-Speed-C, embedded system for cars) - Collaboration : Renault SA.

Position: Project Leader for car manufacturer's projects.

Management: 4 masters engineers.

Expert & transfer: Industrial expertise on Sensors and Signal Processing (Renault, PSA, Aluteam St-Jean), member of the European Polymer Processing Centre (Pôle Européen de Plasturgie - 1992), PI of the GIE 'MOTUS' [RVI, METRAVIB, CRMT] (1994).

▫ 1981-1989: THOMSON-CSF Company - Radar and Counter-Measure System - Paris

Domain: Electronic airborne systems (Super High frequency, antennas, microprocessors and assembling language (Intel, Motorola,).

Research focus: Design of prototypes: real time large bandwidth electronic receiver.

Position: Coordinator of 'Flight Tests', Teaching (in English language) 'Jammers of Radars'.

Expert: Supervisor for Technical Assistance for Thomson CSF.