

## PREFACE

These proceedings contain most of the papers presented at the fifteenth International Thermal Spray Conference. These conferences have become the leading forum for the thermal spray community all over the world. Thermal spray technology is a dynamic, rapidly changing and expanding field. The 271 papers included in the proceedings cover theoretical aspects such as modelling and properties of coatings linked to spraying parameters or in-flight particle parameters, the different spraying processes, the process and quality control with an emphasis on on-line control and the practical aspects of the different coating applications, the latest world-wide developments in processes, equipment, materials and applications in thermal spray. They were grouped into 10 sessions on :

- oxydation and corrosion,
- wear and corrosion-alternatives to conventionnal coatings,
- modeling and experimental characterization of jets and deposits,
- properties of coatings and characterization,
- diagnostic of jets and coatings : processes and products quality control,
- industrial applications,
- feedstock materials, composite structures and near net shape forming
- spraying and associated processes,
- thermal barrier and ceramic coatings,
- thermal spray for the next millennium.

Nine keynote speakers have highlighted the knowledge and state of the art in the different topics and provided an excellent introduction to the different sessions, suited to newcomers as well as to old timers in the field. Beside the sessions, an industrial forum on thermal spraying has gathered professional people and end users (or potential ones). It has promoted thermal spraying and brought together thermal spray equipment/service firms and potential users.

The execution of a large conference such as ITSC requires the efforts of many people. The Organizing Committee wants to thank all of the authors, session chairs, and symposia chairs, and the CEA staff who made the Conference a technical success. Particular thanks are due to the editor of these Proceedings.

In addition to the technical sessions represented in these Proceedings, a large exhibition of thermal spray equipment, materials, services, and supporting technology was held. Attendees of the Conference were able to not only listen to outstanding technical presentations, but get an update on the state-of-the-art of the "tools of the trade". The support of the exhibitors added substantially to the success of the Conference and the value received by attendees. Certainly many thanks are due to the Exhibition committee and the CEA staff for the excellent Exhibition.

**Prof. P. FAUCHAIS**  
Conference chairman

CONFERENCE CHAIRMAN  
**Pierre FAUCHAIS**

60 years old.

An engineer and graduate of "Ecole Nationale Supérieure Aéronautique" (1963, Poitiers), Doctor of Science (1968, Poitiers).

Prof. P. FAUCHAIS has created the laboratory of ceramic materials and surface treatment LMCTS, associated with CNRS, at the University of Limoges in 1975. He has been involved in thermal spraying in general and plasma spraying in particular for more than thirty years.

His group on thermal spraying comprises 10 permanent people and 10 PhD.



NATIONAL ORGANIZING COMMITTEE CHAIRMAN  
**Paul LUCCHESI**

37 years old.

An engineer and graduate of the "Ecole Centrale de Paris" (1983) in Nuclear engineering, he has been in charge of the R and D laboratory for thermal spray at the CEA (Commissariat à l'Energie Atomique) for 7 years. He has been appointed CEA expert in the field of thermal spray.

In 1995, in conjunction with the "Ecole des Mines de Paris", he created the Communal Centre of Competence in Plasma Spray (C2P) located in Corbeil, France. He holds the position of Joint Director of C2P.



SCIENTIFIC PROGRAM CHAIRMAN  
**Christian CODDET**

48 years old.

Doctor of Science (1977) of the University of Grenoble. University Professor and head of the direction of Research - Polytechnic Institute of Sevenans (France).

Head of the LERMPS Laboratory (Materials and Surface Properties Research Laboratory).

Leading the Thermal Spray research group (40 people) in the Technological University of Sevenans since 1985.

