

Curriculum Vitae

Name : KHAN

First name : Tasadduq

Date of birth : May 6, 1942

Nationality : French

- B. Sc. Engineering, Lahore, Pakistan (1962)
- M. Sc. (Metallurgy), Faculté Polytechnique de Mons, Belgium (1963-65)
- Research project on Sintered Aluminium Powders (SAP), Faculté Polytechnique de Mons (1965-66)
- Post-Graduate Diploma in Special Metallurgy, (Diplôme de Mét. Spéciale), Univ. of Paris and Centre d'Etudes Nucléaires de Saclay France (1967-1968)
- Doctorate in Engineering (Dr-Ingénieur), University of Paris and Centre d'Etudes Nucléaires de Saclay (1966-71)

PROFESSIONAL STATUS

- Joined ONERA (Office National d'Etudes et de Recherches Aérospatiales) in November 1971 as Research Engineer in Materials Engineering Department
- Promoted Group Leader in July 1983
- Promoted Maître de Recherches in 1985
- Promoted Head of Division (Superalloys, Light Alloys and Rapid Solidification Tech.) in June 1987
- Promoted Deputy Director, Materials Engineering in November 1991
- **Present Position : Director Materials and Structures Branch - since October 1997)**
Visiting Professor at Imperial College, UK (since 1998)

DISTINCTIONS

- **Best Paper Award, Conference "Superalloys 1988", Seven Springs, USA in 1988**
- **"Fellow of American Society for Materials" in 1989**
- **Jules Garnier Prize, Société Française de Métallurgie et Matériaux in 1992**
- **"Science & Défense" Award (French Ministry of Defence) in 1993**
- **Chevalier of the National Order of Merit (2001): Presidential Distinction**
- **Listed in "Who's Who in the World" (2002 and 2006) and Who's Who in Science and Engineering (2003-2004)**
- **Fellow of the French Society of Aeronautics and Astronautics (AAAF) in 2004**
- **Associate Member of the National Academy of Aeronautics and Space (ANAE) in 2004**

Nominations in National and International Committees

- **Chairman "Aerospace Materials Group", Critical technologies Sector, American Society for Materials(1986-1995)**
- **Chairman Technical Committee of American Society for Materials (Europe): 1986-1995**
- **Vice-President "COST 513" (Cooperation On Science and Technology) in 1995-96**
- **Coordinator of European Group on Titanium Aluminides "Concerted European Action on Structural Intermetallics"(1992-96)**
- **National Delegate of COST 522 (Cooperation on Science and Technology) (May 2000-....)**
- **Member of the Board, French Metallurgy and Materials Society (SF2M) (2000-2002)**
- **Chairman Materials and Structures Panel, GARTEUR (Group on Aeronautical Research and Technology, (2002-2004)**

Publications and Patents

- About 100 publications (National and International Journals, Books, Conferences)
- 14 Patents on High Temperature Materials
- Inventor of three high temperature alloys being used in M88 engine (Rafale fighter) and Turbomeca engines for helicopters

Member of Editorial Board

- Journal of Advanced Performance Materials, Kluwer Academic Publishers, U.K.
- Materials at High Temperature, Butterworth-Heinemann, U.K.
- Journal of Materials Science and Technology, Allerton Press Inc. New York, USA
- Aerospace Science and Technology, Elsevier SAS

Organisation of International Conferences

- First ASM-Europe Symposium on "Advanced Materials and Processing Techniques", Paris (7-9 September 1987)
- International Conference on "Advanced Aluminium and Magnesium Alloys", Amsterdam (June 1990)
- "Synthesis Processing and Modelling of Advanced Materials", Paris (September 1991)
- "International Symposium on Superalloys", Seven Springs, USA (1992, 1996)
- Symposium "Concerted European Action on Structural Intermetallics", Paris (November 1996)
- "International Symposium on Structural Intermetallics", Seven Springs, USA (1993, 1997)
- ASM International Conference on "Welding and Joining Science and Technology", Madrid (March 1997)
- Third ASM Conference on "Synthesis, Processing and Modelling", Paris (June 1997)
- International Symposium on Processing Designing and Properties of Advanced Engineering Materials (ISAEM-97), Toyohashi, Japan (October 1997)
- 6th Liège Conference on "Materials for Advanced Power Engineering", Liège, Belgium (October 1998)
- EUROMAT 2005, Programme Coordinator/Overseer
- EUCAS (European conference on aeronautics and space) 2005, Moscou (3-7 July 2005)

Expertise/Consultancy/Evaluation

- Expert with the European Commission in Brussels, DG XII (1990, 1993, 1997, 2000)
- Consultant for "Nato Collaborative Research Groups" (September 1994)
- Evaluation of Engineering and Physical Sciences Research Council, UK (EPSRC) research grants to British Universities (1996-97)
- Member of "Materials Evaluation Panel 1998" (EPSRC)
- Member AIRBUS Technology Review, September 2004, Toulouse
- Member EPSRC Peer Review College (2006-2009)

Member of Scientific Advisory Panels

- Institut Supérieur de Technologie et Management (ISTM), "filière Matériaux, Mécanique-productique", Pôle Universitaire Léonard de Vinci, Paris
- Imperial College of Science, Technology and Medicine, London (member "Advisory Panel" of Materials Science and Engineering)
- School of Mines at Albi (France), new course on "Materials for Aeronautics and Space" (starting from 2003)

Teaching Experience

- Organization of a Course on "*Superalloys*" at CNAM (Conservatoire National des Arts et Métiers) since 1988

Invited Lectures at International Conferences/Symposia (some examples)

- AIME Symposium on Physical Metallurgy of high temperature Alloys, Philadelphia (October 1983) - "Improvement of creep and fatigue strength through microstructural control in a single crystal superalloy"
- The institute of metals, London, Symposium on "Casting of Superalloys" (February 27, 1985) - "The effect of processing conditions and heat treatments on the mechanical properties of single crystal superalloys"
- AIME-TMS High Temperature Alloy Committee Conference (October 1985), Toronto - "Effect of composition, processing and orientation on the creep behaviour of single crystal superalloys"
- COST 50 and COST 501 High Temperature Alloys for Gas Turbines and Other Applications (October 1986), Liège - "Recent developments and potential of single crystal superalloys for advanced turbine blades"
- International Conference on High Temperature Aluminides and Intermetallics (October 1989), Indianapolis, Indiana, USA - "Effect of ternary elements on the strength and ductility of Ni₃Al-based intermetallics"
- International Symposium on Advanced Aerospace Materials, Peking (May 1996) - "Recent developments in Aerospace Propulsion Materials"
- International Symposium on Processing, Designing and Properties of Advanced Engineering Materials, Toyohashi, Japan (October 1997 and October 2000, Guilin, China)

Invitations by Research Institutes and Universities

- University of Erlangen Nurnberg, Germany (August 1984 and January 1993)
- Technology Development Centre (TEKES), Finland (April 1987)
- "Korea Institute of Machinery and Metals" and "Korea Institute of Science and Technology" (September 1984, May 1987, November 1993, May 2003)
- Defence Metallurgical Research Labs Hyderabad and Materials, Research Society of India (February 1994)
- Technische Universität Berlin (May 1996)
- University of Oxford-Kobe Materials Seminar (September 1998)
- Nanjing University of Aeronautics and Astronautics and Northwestern Polytechnical University, Xi an, China in October-November 2005

International Cooperation (selected examples)

- Pratt and Whitney, Canada
- Ishikawajima Heavy Industries Research Institute, Tokyo, Japan
- Chinese Aeronautical Institute (CAE), China
- Georgia Institute of Technology, Atlanta, USA
- National Physical Laboratory, Teddington, United Kingdom
- University of Erlangen, Nürnberg, Germany
- Imperial College London, United Kingdom
- Defence Research Agency (DRA), United Kingdom
- University of Birmingham, United Kingdom
- University of Cambridge, United Kingdom
- NASA Glenn Research Center USA
- General Electric Corporate Research and Development, Schenectady, USA
- Beijing Institute for Aeronautical Materials, China