

Dr. Abbas NIKU-LARI

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Nationality : French and Iranian
Born on 1948/02/29 in Teheran-Iran

Spoken languages : English, German, French, Farsi

Degrees :

before 1967 : Scholarship in Teheran/Iran,
1967-1973 : Study of Mechanical engineering at Technical University of Munich/Germany
1973: Diploma Engineer from Technical University of Munich/Germany
1976 : Dr Engineer from the university of Paris 6
1979 : Dr. ès Sciences (Doctor of Sciences) in materials engineering from the university of Paris 6

Professional Background :

1976-1985 : Research Engineer at the Research Center for Mechanical Industries (CETIM/France)
Since 1985 : Founder and Director of IITT-International (Institute for Industrial Technology Transfer), Paris-France

Research activity in material sciences :

- Shot peening theory and application
- Development of methods of measurement of residual stresses
- Fatigue of materials and structures
- Mechanical surface treatments

Several papers and books has been published in french and in english

Technical assistance to solve industrial problems

In the period of 1975 to 1985 Dr. NIKU-LARI was involved in several applied research programs as well as technical assistance for the french Industry among which : Atomic Energy authority (CEA), FRAMATOME, ALSTHOM, AEROSPATIALE, CATERPILAR. He also signed one of the first research contracts on Shot Peening with Xian Jiotong University in Peoples Republic of China.

IITT-International

In 1985, Dr. NIKU-LARI founded the Institute for Industrial Technology Transfer, IITT-International which task is to help technology Transfer by organizing national and

International conferences and seminars as well as publishing scientific and technological books and proceedings.

During nearly 30 years Dr. NIKU-LARI helped to create a link between research and industry by setting several International Scientific Committees in many different areas such as Shot Peening, High Power Lasers, Artificial Intelligence and Expert Systems, Structural Analysis, Super Conductivity and so on.

Several International conferences were organized in France, England, Germany, Switzerland, Italy and the USA under the supervision of these International Scientific Committees.

He visited and delivered talks as an internationally recognized expert in the field of shot peening in companies such as Israel Aircraft Industries (Israel), Aérospatiale, Wheelabrator, (France), SAAB (Sweden), IIT, Metalizing Equipment, Indabrator (India), CETIME (Tunisia), Institute for Aeronautic Materials, Shanghai Machine Tool Factory, 2nd Automobile Work (China) , Ford, GE, Boeing, MIC, Potters,... (USA), Messerschmidt, BMW, MTU,... (Germany), Westland Helicopter, Rolls Royce ... (U.K.).

He also was invited in many recognized educational organizations in the world such as MIT, George Washington University, UCLA(USA), University of Karlsruhe (Germany), University of Anvers (Belgium), Universities of Bhopal and New Delhi (India), University of XIAN(China), University of Cairo (Egypt), University of Bologna (Italie), Imperial College, University of Nottingham (UK) and in various engineering schools in France.

International Editorship :

Other than publication of his own research work (see below) Dr. NIKU-LARI edited with PERGAMON PRESS (Oxford) the proceedings of the first International Conference on Shot Peening (ICSP1) as well as two book series on Structural Analysis Systems (SAS) and on Advances in surface Treatments (AST) including the International Guide book on Residual Stresses (AST-4)

In 1988, he created the "Technology Transfer Series" of publications which summarize the proceedings of IITT conferences such as :

FATIGUE : FATIGUE OF MATERIALS AND COMPONENTS
LASERS : HIGH POWER LASERS TECHNOLOGY AND APPLICATION
SURFACE : SURFACE TREATMENTS
ICMAS : SUPERCONDUCTIVITY
EXPERTSYS : EXPERT SYSTEMS AND ARTIFICIAL INTELLIGENCE
FEM-CAD : STRUCTURAL ANALYSIS AND CAD
MAT-TEC : MATERIALS TECHNOLOGY

Shot Peening

Dr. Abbas NIKU-LARI was at the origin of the International Scientific Committee on Shot Peening which was founded in 1979 in Las Vegas/USA leading to the first world conference on Shot peening in 1981 in Paris.

Books :

- Le grenailage de précontrainte, Authors : J.F. Flavenot et A. NIKU-LARI, Les notes techniques du CETIM, N° 15 Mars 1976
- La mesure des contraintes résiduelles : Méthode de la « Flèche », Méthode de la « Source des contraintes », Mémoires techniques du CETIM, n° 31, Paris septembre 1977
- Guide du dessinateur, Les concentrations de contraintes. J.P. Faurie, P. Monnier, A. NIKU-LARI, R. Sutterlin, CETIM publications 1977
- Le grenailage de précontrainte. Editor : A. NIKU-LARI, Librairie de Traitement de surface-Paris1984
- Traitement mécanique de surface. En deux volumes. Editor A. NIKU-LARI, , Librairie de Traitement de surface-Paris1985

Papers :

- Effect of Shot Peening Parameters on Fatigue Influence Factors . A. Niku-Lari Conf Proc: IITT Detroit, MI October 26, 1993
- Measurement Of Residual Stress Distribution By The Incremental Hole-drilling Method. Niku-Lari, Lu, Flavenot, Shot Peening Theory and Appl., IITT Intl., 1991
- Shot Peening, Niku-Lari, A. Conf Proc: ICSP-1, (p. 1-21) Pergamon Press, Oxford 1981
- Residual Stresses And Surface Finish In Shot-peened Components And Materials Niku-Lari, A., Experimental Techniques, Feb. 1983
- Contraintes Résiduelles Et Fatigue Des Alliages D'aluminium Grenaillées. Niku-Lari, A. and Gillereau, D. Conf Proc: ICSP-2, (p.102-114) , 1984
- Influence Du Grenailage De Précontrainte Sur La Tenue A La Fatigue Des Ressorts Hélicoïdaux De Suspension. Niku-Lari, A. , Conf Proc: ICSP-2, 1984
- Methode De La Fleche Methods De La Source Des Contraintes Résiduelles. Niku-Lari, A. Conf Proc: ICSP-1, (p.237-247) 1981
- Influence of residual stresses induced by shot peening upon the fatigue life of materials. A. NIKU-LARI, Experimental techniques march 1983 pages 21-25
- Le grenailage de précontrainte. A. NIKU-LARI et J.F. Flavenot, Mécanique matériaux électricité N° 350, Février 1979, pages 58-69
- Effet du grenailage de précontrainte sur les paramètres influencant la tenue à la fatigue des pièces mécaniques. A. NIKU-LARI, Mécanique matériaux électricité N° 375, mars 1981, pages 213-224
- Influence des divers paramètres du grenailage sur l'allure des contraintes résiduelles et la tenue à la fatigue des pièces. A. NIKU-LARI, Galvano-Organo Avril/77 pages 425-432
- Le grenailage de précontrainte, A. NIKU-LARI, J.F. Flavenot, La technique moderne n° 12, 1978, pages 21-25
- Grenailage de précontrainte, Comparaison de trois types de grenailles. A. NIKU-LARI, Surface, n° 130, pages 25-29
- Grenailage de précontrainte. Influence de la nature de la pièce grenailée. J. F. Flavenot et A. NIKU-LARI, Galvano Organo n° 477, 1977 pages 689-694
- Le grenailage de précontrainte : Utilisation en mécanique. A. NIKU-LARI, CETIM information N° 57 pages 62-69
- Mesure de contraintes résiduelles dans l'épaisseur d'une pièce par la méthode du trou. J. Lu, A. NIKU-LARI, J.F. Flavenot, Cetim-information N° 84 février 1984 pages 55-59
- Grenailage de précontrainte, Essais comparatifs de grenailles. A. NIKU-LARI, CETIM information N° 62, pages 69-73
- Application du grenailage de précontrainte aux pièces forgées. Quelques exemples concrets d'amélioration de la tenue à la fatigue. A. NIKU-LARI, A. Brand, J.F. Flavenot, CETIM Information N° 80-81 juin 1983 pages 72-76
- Tenue à la corrosion sous contrainte d'un acier inoxydable. Influence de l'état de surface. A. NIKU-LARI, M. Meniel, M. Beranger, CETIM informations N° 78, décembre 1982, pages 77-83
- Traitement de surface par grenailage, J.F. Flavenot et A. NIKU-LARI, Surfaces n° 109, pages 34-36
- Les concentrations d contraintes, détermination pratique de Kt . A. NIKU-LARI, J.P. Faure, P. Meunier, CETIM informations n° 65, pages 34-39