**C.V. of Prof. Dr. Nihad M. El Chazly**

**Surname First NameMiddle NameMarital Status**



El Chazly Nihad Mohamed Married

**Nationalitiy**: Egyptian

**Address :** National Research Centre, Mechanical Engineering

Department, Dokki , Cairo, Egypt.

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**University** **Years attended** **Degrees**

**Name & Place** **From**  **To**

Cairo University, 1967 1972 B.Sc.

Faculty of Eng, 1972 1976 M.Sc.

Mech. Design & 1976 1980 Ph.D

Production Dept

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**Scientific EmploymentAnd Academic Resposibility:**

**Research Institution:** **Period of Duty** **Academic**

**National Research**  **From** **To** **Responsibilities**

**Centre, NRC, Cairo**

**Head of the Mech, Engg. Dept. 1997 (June) Now**

**Research Prof, 1994 1997 Research**

**Associate Research Prof, 1986 1994 Research**

**Assistant Research Prof, 1981 1986 Research**

**Senior Research Engineer 1976 1981 Ph.D.Student**

**Research Assistant 1973 1976 M.Sc.Student**

**Previous Experience:**

* Conducted academic researches mainly based on computer science and numerical methods applied on: Material Science, Design and Stress Analysis, either through personal researches

or through contribution in some projects.

\* Supervised research programs for M. Sc. and PhD students on Design, Material Sciences, and Energy storage

\* Participated in training courses mainly related to Cornputer languages, software and systems,

Basic, Fortuni77, Finite Element Method Windows, Unix, and Internet.

\* Had a teaching Experience in The American University in Cairo of a course based on computational methods applied on:

" Materials Engineering and Stress Analysis"

\* Had a teaching experience in Misr University of Science and Technology of a Computer Course for Medicine, Engineering, and Pharmacy faculties.

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**Present Fields Of Specialization:**

Computational and numerical methods in engineering using Pes of UNIX .\*

\*Material, Stress Analysis , Dynamic Analysis, and Design of components of Solar and Wind Energies, systems.

Modeling and Design of Thermal Storage Systems, \*

Economical Analysis of Hybrid Wind Systems, \*

Noise Pollution.\*

Vibration in vehicles to improve the design of suspension systems. \*

\* High Speed ​​Machining.

\* Electric Control in Mechanical Systems, using the computer to design and machining operations, design for machining (DFM).

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**Previous and Current Supervision On Theses:**

1. Ph.D., " Analysis of Technological Economy for Hybrid Wind Systems in Rural Areas ", Fac. of Eng., Cairo Univ.

2,. PhD "Dynamics of Wind Energy Conversion Systems", Fac of Eng. Cairo Univ

3. Ph.D.," High Speed ​​Machining, Experimental Study and Finite Element Modeling", Fac. of Eng . Cairo Univ.

4. PhD," Mixing Processes in Simulated Gas Turbine Combustors", Fac. Of Eng.

Cairo Univ.

5. M., Sc., "Acoustic Characteristics of Dissipative ICE Mufflers", Fac of Eng. Cairo Univ.

6. M. Sc., " Thermal Energy Storage in Phase Change Materials ", Fac of Eng. Cairo Univ

7. M.Sc," The Control in Mechanical Systems Using The Cornputer", Fac. of Eng. , Mansoura Univ.

8. M.Sc.," Study The Effect of Road Roughness on Man and Vehicle", Fac of | Eng., Mansoura Univ.

**List of Projects**

**1 - Projects Sponsored by AUC - Cairo:**

\* "Stress Analysis on Micro and Macro Scale basis in Deep Drawing of Cans", 1981.

\* " Stress Analysis and Design of Food Containers", 1982 .

II **- Projects Sponsored by The National Research Center and The Academy of Scientific Research and Technology:**

* "Solar and Wind Energy Hybrid System in Sinai", 1984.\*

\* " Traffic Noise ". 1985 .

Design and Choice of a Wind Energy System",1986. \*

\* Applications in Mechanical Engineering", 1986.

\* "Evaluation and Development of the Utilization of Renewable Energy in Sinai" 1991.

\* Utilization of Computer System to Control the Production Machine", 1992.

\* "Application of Integrated Wind – Diesel System for Developing Desert Communities in Sinai", 1995.

\*"Using Composite Materials in Wind Turbine Blades",.

\* "Vapor Compression Desalination".

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**Membership of Scientific Societies:**

Member of the British Wind Energy Associations, BWEA .

,,,,,, of the International Society of Solar Energy, ISES.

,,,,,, of the Third World Organization of Scientific Woman TWOWS.

,,,,,,, of the Egyptian Desalination Association

**List of Publications**

1 - MS, Rashad, M, Adel and N. M. El Chazly," Stresses in Axisymmetrical Solids Under Asymmetrical Loading ", Bull. of the National Research Center , Vol. 3, No. 4 Dec, 1978.

2 - N. M, EI - Chlazly and M. Farag."The Formability of Two - Phase A1 - CU Alloys Under Compressive Loading ", Proc. of the First Cairo University Conference of Mechanical Design and Production, MIDP - 79 - Mat - 16 Dec 1979.

3 - Nihad M. EL - Chazly and Mahmoud M. Farag, " Inhomogeneity of Plastic Deformation and Fracture Modes in Two - Phase Alloys " J. of Material Science and Engineering, Vol. 55, 1982.

4 - N. M. EI. Chazly and N . M Farag, " Plastic Deformations and fracture of Some Aluminim - Copper Alloys", Pro. of the Second Cairo University MDP Conference, Current Advance in Mechanical Design and Production, Dec 1982.

5 - Nihad M, El - Chazly," Formability of 3004 , M- 19 Alloy for Rigid Containers "Presented atthe XVI \* International Congress of Theoretical and Applied Mechanics, Aug.19, 1984. Lyngby, Denmark, also Published in Materials Letters, Vol 4, No 3, April 1986, P (159 - 167)

6. Nihad M. EI - Chazly and AI. El Sharkawy, "Analysis and simulation of stratified Liquid Storage Tanks." Proceedings of 1 lot 7 Miami International Conference on Alternative Energy Sources, Miami, Florida, Dec. 9, 1985.

7. Nilad M. EL - Chnazly and A, I.El - Sharkawy, "Decision Analysis to Introduce Solar and Wind Energy For Development of Egyptian Desert " Proceedings of the 7 Miami International Conference on Alternative Energy Sources, Miami, Dec 9, 1985.

8. A .I . EL - Sharkawy and Nihad M. E - Chazly," solar Technology Transfer to Egypt" Proceedings of the 7 " Miami International Conference on Alternative Energy Sources, Miami, Florida, Dec 9, 1985.|

9- Nilad M. El – Chazly, Ashraf A. Hanna and Mahmoud M. Farag," Elastic - Plastic Behavior of Aluminium - Polypropylene laminate "; Proceedings of the Third Cairo University MDp Conference, Current advances in Mechanical Design and Production. Dec 28, 1985.

10 – A.I. EL - Sharkawy and N. M. EI - Ghazly," A Critical Survey of Basic theories Used in Muffer Design and Analysis. "Journal of Applied Acoustics, 20, 195 - 218, 1985.

11 – A.1. EI - Sliatkawy and N. M. El - Chazly," Effect of Tailpipe Reflections On Resonator - MufferPerformace ", J of Applied Acoustics vol., 24, pp. 145-155, 1988.

12 – M.M. EL – Kotb, A.I. El - Sharkawy, N. M - El- Chazly and M.E.Aly," Acoustical Characteristics of Combined Mufflers "J. of Egyptian Computer Science, Issued by the Egyptian Computer Society, Vol 14, No. 1, PP 25 - 45, 1992.

13 - N. M. El Chazly" Static and Dynamite Analysis of Wind Turbine Blades Using The Finite Element Method ", J of Computers and Structures, Vol 48, No. 2, pp. 273-290, 1993.

14 N. M. El Chazly and AL El-Sharkawy," Statistical Analysis of Traffic Noise Measurements in Cairo "J. of Egyptian Computer Science, Issued by the Egyptian Computer Society, Vol. 15, No. 1, pp. 1- 17, June 1993.

15. N. M, EL - Kotb, A.I. EI - Sharkawy, N. M. El Chazly and M. El - Sayed, "Experimental Analysis of Lined Mufflers for ICE", J. of Egyptian Computer Science, Issued by the Egyptian Computer Society, Vol 15, No. 1, pp. 18- 35, June 1993.

16 – A. El - Sharkawy, N, EL - chazly and A. Mahmoud, "Aerodynamic Characristics of Low Reynolds Number Airfoil Sections fiat Wind Turbine Applications", Proceedings of Al-Azhar Engineering Third International Conference AEIC 93 Vol 7, pp82 - 93, Dec: 18 - 21, 1993.

Also, Published in the Proceedings of the 5 International Energy Conference, ENERGEx 93, Seoul Korea, Vol. 111, pp. 446 - 455. ,Oct. 18 22, 1993.,

17. Nihad M. El Chazly, wind turbine Tower Structural and Dynamic Analysis Using the Finite Element Method ", Proceedings of the 5 International Energy Conference, ENERGEx93, Seoul Korea, Vol III, pp 260-269, Oct 18- 22, 1993.

Also presented and published in the Proceedings of the 15 Annual Conference of the British Wind Energy Association, DWEA 15, York, England, Oct 6- 8, 1993.

18. N. M El Chazly, "Effect of Centrifugal Forces on stresses Included in different Wind Turbine Blade configurations", Proceedings of Al - Azhar Engineering Third International Conference, Vol 8, pn 450 - 457, Dec. 18-21, 199 3.

19. N. M. EL Chazly, "Wind Turbine Rotor Hub Stress Analysis Using Thy Finite Element Method", Proceedings of World Renewable Energy Congress, Reading UK, Part III, pp 2004-2007, Sept 11-16, 1994.

20. El - Midany T.T, El Chazly N. , El - Bayoumi M. , "A New Concept for Manipulating Machine Tools through CNC Systern," Mansoura Eng. Journal (MEJ), v 20, No. 3, Sept., 1995.

21. A.k. Shabaan,,Y.I.Abo - Mosallarn, k, Abed, and N. EL Chazly." The Effect Of Vehicle Suspension SYSTEM Component on The Ride Comfort Due To Road Roughnesss ", Mansoura Eng (M.E.J.), Faculty of Engineering , Mansoura Univ., Vol. 20, No 4, Dec .1995.

22. A.K. Shabaan, Y. I. Abo-Mosallam, K. Abed, and N. El Chazly,

Investigation of the Effect of Vibration in Man and Car Due To Read Roughness, "Current Advances in Mechanical Design & Production, VI, Proc.of the 6 Cairo University International Conference on Mechanical Design & Production ( MDP- 6 ) ,Jan. 2-4, 1996

23. EI Chazly, N., Riad, M. S., M, Adly, M.A., and El - Hossainy, T.N., "A Finite Element Model for High Speed ​​Machining ", Current Advances in Mechanical Design & Production, VI, Proc. of the 6 Cairo University International Confer ence On Mechanical Design & Production (MDP – 6 ), Jan 2 - 4 1996.

24. N. EI Chazly, and N. Khattab, "Solar Energy Storage Utilizing Paraffin Wax as a Phase - Change Mat terial", Accepted for presentation at the Symposium on Energy Engineering in the 21 "Century, January 2000.