

## CURRICULUM VITAE

1. **Name, Surname** : Nurettin ARSLAN
2. **Date of Birth** : 01.10.1965
3. **Title** : Prof. Dr.
4. **Educational Status** :

Degree	Field	University	Year
Undergraduate	Mechanical Engineering	Firat University	1987
Graduate	Mechanical Engineering	Firat University	1990
Doctoral	Mechanical Engineering	Firat University	1995

### 5. Academic Titles and Date of Appointments

- 1995 - Assistant Professor Dr. (Firat University – Mechanical Engineering Department)  
2002 - Asst. Prof. Dr. (Firat University – Mechanical Engineering Department)  
2004 - Asst. Prof. Dr. (Balikesir University – Mechanical Engineering Department)  
2007 - Prof. Dr. (Balikesir University – Mechanical Engineering Department)  
2014 - Prof. Dr. (Celal Bayar University –Technology Faculty, Department of Energy Engineering Department)

### 6. Graduate Theses Supervised (Master and PhD)

#### 6.1 Master Theses

- Alkan, O., “Elasto-plastic stress analysis for simply supported and clamped thermoplastic composite laminated plates”, Firat University, 2002.
- As, N., “Elasto-plastic stress analysis of the composite roller chain links”, Firat University, 2002.
- Erten, İ., “Mechanical Pperformance of Ilizarov circular external fixator composite rings ”, Firat University, 2004.
- Özdemir, Z., “The effect of the cure conditions on The polyester-calsit composite materials reinforced with different end shape metal fibers”, Gazi University, 2006.
- Ataş, A., “Mechanical behaviours under static load of the polyester-woven fiber composite laminated plates with two parallel holes”, Balikesir University, 2007.
- Esen,Ö., “The fatigue analysis of the composite leaf spring by using finite elements methods” , Balikesir University, 2009
- Polat, O., “Computer aided fatigue analysis of the leaf springs”, Balikesir University, 2012.

- Kökçü,İ., "Tower crane design and computer aided structural analysis", Balikesir University, 2015.
- Üzüm, K., "Computer aided design of the new type wind turbine having small capacity", Balikesir University, 2015.
- Yelkenci, Ö., " Computer aided design of the stacking machine and full line for wood industry", Balikesir University, 2015.

## 6.2 PhD Theses

- Özben, T., "The Effects of The Material and Supporting Types on The Elasto-Plastic Behaviour of The Thermoplastic Composite Plates", Firat University, 2004.
- Koruvatan, A., "Failure Analysis of Laminated Composite Plates with Pin-loaded Holes manufactured under different cure time and temperatures conditions", Balikesir University, 2008.
- Balıkoğlu,F., "The Effect of The Conventional and Different Materials Types in The Marine Composite Plates on The Production Parameters and Mechanical Properties", Balikesir University, (Continue)

## 7. Publications

### 7.1 Papers published in the refereed international journals (SCI & SSCI & Arts and Humanities)

- Arslan, N., "Elasto-Plastic Behavior of Thermoplastic Matrix Plates with Rectangular Hole," J. of Reinforced Plastics and Composites, Vol.19, 1389-1404 (2000).
- Arslan, N. ve M. Çelik, "Thermoplastic Matrix Plates in Elasto-Plastic Finite Element Analysis," J. of Reinforced Plastics and Composites, Vol.20 (14),pp.1191-1204, 2001 .
- Arslan, N., H. Pıhtılı ve M. Gür, "Elasto-Plastic Stress Analysis of Thermoplastic Matrix Composite Laminated and Perforated Plates under In-Plane Loading," J. of Reinforced Plastics and Composites, Vol.20 (14),pp.1222-1252, 2001.
- Sayman, O., N. Arslan ve H. Pıhtılı, "An Elastic-Plastic Stress Analysis in A Thermoplastic Composite Cantilever Beam Loaded Uniformly," J. of Thermoplastic Composite Materials, 14, 523-538, 2001.
- Arslan, N., M. Çelik ve Nuray Arslan, "Prediction of The Elastic-Plastic Behavior of Thermoplastic Composite Laminated Plates  $([0^0/\square^0]_2)$  with Square Hole," J. of Composite Structures, 55, 37-49, 2002.
- Arslan, N., "Prediction of The Residual Stresses and Expansion of Plastic Zones in Simply Supported Thermoplastic Composite Laminated Plates Subjected to Transverse Loads," J. of Reinforced Plastics and Composites, Vol.22, 105-130, No:2, 2003.
- Yılmaz E, Belhan O, Karakurt L, Arslan Nurettin, Serin E. Mechanical performance of hybrid Ilizarov external fixator in comparison with Ilizarov circular external fixator. Clinical Biomechanics, 18, 518-522, 2003.
- Arslan, N., Arslan Nuray, Okumus, F., "Elastic-Plastic Stress Analysis and expansion of plastic zone in clamped and simply supported thermoplastic-matrix laminated plates with square hole" Composites Science And Technology , 64, 1147-1166, 2004.
- Arslan, N., Kaman, M.O., Duranay, M., "Elastic-Plastic Stress Analysis in Aluminum Metal-Matrix Composite-Laminated Plates  $([0^0/\theta^0]_2)$  Under Transverse Uniformly

Distributed Load” J. of Reinforced Plastics and Composites, Vol.23, 2025-2045, No:18, 2004.

- Arslan, N., Özben, T., “An Elastic-Plastic Stress Analysis in A Unidirectional Reinforced Steel Fiber Thermoplastic Composite Cantilever Beam Loaded by a Single Force at The Free End” J. of Reinforced Plastics and Composites, Vol.24, 457-469, No:5, 2005. (NOT: Tamer Özben: Doktora Öğrencisi)
- Arslan, N., Özben, T., “An Elastic-Plastic Stress Analysis of A Woven Reinforced Steel Fiber Thermoplastic Composite Cantilever Beam Subjected to Transverse Uniform Loads on The Upper Surface” J. of Reinforced Plastics and Composites, Vol.24, 1493-1508, No:14, 2005. (NOT: Tamer Özben: Doktora Öğrencisi)
- Atas, A., Arslan, N., Sen, F. “Failure Analysis of Laminated Composite Plates with Two Parallel Pin-loaded Holes” J. of Reinforced Plastics and Composites, Vol.28, 1265-1276, No:10, 2009.
- Atas, A., Arslan, N., Türkbaz, S.E., and Özdemir, Z. “The Effect of Curing Conditions and Fiber End Shapes on the Mechanical Properties of Composites” J. of Reinforced Plastics and Composites, Vol.28, 2665-2674, No:21, 2009. (NOT: Zafer Özdemir: Y.Lisans Öğrencisi)
- Özben, T., Arslan, N., “Expansion of plastic zone and residual stresses in thermoplastic-matrix laminated plates  $[(0/-q)]_2$  with a rectangular hole subjected to transverse uniformly distributed load expansion” J. of Computational materials science, 895-912,44, 2009. (NOT: Tamer Özben: Doktora Öğrencisi)
- Özben, T., Arslan, N., “ FEM analysis of laminated composite plate with rectangular hole and various elastic modulus under transverse loads” Applied Mathematical Modelling 34 (2010) 1746–1762. (NOT: Tamer Özben: Doktora Öğrencisi)
- Komur, A., Sen, F., Atas, A., Arslan, N. “Buckling analysis of laminated composite plates with an elliptical/circular cutout using FEM, Advances in Engineering Software 41 (2010) 161–164
- Özel, K., Özel, B., ÇOLAKOĞLU, N., Arslan, N. Protective effect of the thoracic cage on parenchyma in response to trauma direction in blunt thoracic trauma: an experimental study, Turkish Journal of Trauma & Emergency Surgery: Ulus Travma Acil Cerrahi Derg 2010;16 (4):287-292,
- Özben., T., Huseyinoglu.,M., Arslan, N., Fuzzy logic model for the prediction failure analysis of composite plates under various cure temperatures, J. Braz. Soc. Mech. Sci. Eng. DOI 10.1007/s40430-013-0096-9, 2013.

## 7.2 Papers published in other refereed international journals

## 7.3 Papers presented at international conferences and published in the proceedings

- Turgut, A., N. Arslan ve E. Sancaktar, “The Effect of Fiber Type on The Level of Stress Concentration Created by U-Notches in Long-Fiber Composite Plates,” The Asme Design Technical Conferences-10<sup>th</sup> Biennial Conference on Reliability, Stress Analysis, and Failure Prevention, DE-Vol.55, 125-134, ASME, New Mexico, 1993.
- Turgut, A., N. Arslan ve H. Pıhtılı, “The Effect of Friction in plane sheet Rolling Process by using Finite Element Method” 6 th Int. Machine Design and Manufacturing Congress, 83-193, METU, Ankara, TÜRKİYE, 21-23 Sept.1994.

- Turgut, A., M. Gür ve N. Arslan, "The effect of cure conditions on the mechanical behaviour of the fiber-matrix interphase," 6 th Int. Machine Design and Manufacturing Congress, 149-157, METU, Ankara,TÜRKİYE, 21-23 Sept. 1994.
- Turgut, A., M. Gür ve N. Arslan, "The effect of the polimerization temperature and time of the adhesive agents on the strenght behaviour and young's modules," 1 th. Int. Aerospace and Advanced Tech. Symposium., 393-402, ITU, Maslak, İstanbul, 8-10 March 1995.
- Arslan N., Turgut, A. ve Gür, M., "The residual stresses and plastic regions of the U-notched isotropic plates", 7 th Int. Machine Design and Manufacturing Congress, 1-10, METU, Ankara,TÜRKİYE, 11-13 Sept. 1996.
- Arslan, N., A.Turgut ve E. Sancaktar, "Elasto-Plastic Finite Element Analysis of Isotropic Plates with U-Notches," The Asme International Mechanical Eng. Congress and Exposition: Reliability, Stress Analysis, and Failure Prevention Issues in Fastening and Joining, Composite and Smart Structures, Numerical and FEA Methods, and Risk Minimization, DE-Vol.92, 45-58, ASME, USA, 1996.
- Arslan N., E. Sancaktar ve M. Çelik, "Elasto-Plastic Behavior of Thermoplastic Matrix Roller Chain Link Plates Reinforced with Steel Fibers," ASME 2000 Design Engineering Technical Conferences And Computers and Information in Engineering Conference, 1-10, Baltimore, Maryland, September 10-13, 2000.
- Arslan N., A.Turgut ve E. Sancaktar, "Elasto-Plastic Finite Element Stress Analysis of Thermoplastic-Matrix Symmetric Cross-Ply Plates with Square Hole," The 2000 Asme International Mechanical Eng. Congress and Exposition: Reliability, Stress Analysis, and Failure Prevention Issues, DE-Vol.110, 45-61, Orlando, Florida, 2000.
- Arslan N., Kaman M.O., "The Effect of Geometrical Parameters on the Elasto-Plastic Behavior of Thermoplastic Matrix Roller Chain Link Plates Reinforced with Steel Fibers," UMTİK 2000 9 th Int. Machine Design and Manufacturing Congress, 149-157, METU, Ankara,TÜRKİYE, 13-15 Sept. 2000.

#### **7.4 Books or book chapters in international publications**

#### **7.5 Papers published in the refereed national journals**

- Turgut, A., Arslan Nuray, M.O.,Kaman ve Arslan, N., "Plane Frame Analysis by FEM ", Fırat Univ. J of Science and Engineering, 12 (2), 209-217 (2000).
- Arslan, N., Özler, L., Tosun, N., "The Composite Applications and Stress Analysis on the Carrier Catapult", Gazi Univ. J. of Institute of Science and Technology, 14 (3), 761-775 (July 2001).
- Arslan, N., M.O. Kaman, Arslan, N., "The Elasto-Plastic Behaviour of the Crane Hook", J. of Engineer and Machine, 502, 23-30 (Nov.2001).
- Arslan, N., M.O. Kaman, "The effect of The Cell Size and Dimensions in Honeycomb Composite Structures made of Thermoplastic (PVC), Aluminum (2024, 6061-T6) and Nomex (T412) Paper on The Mechanical Behaviours", Dokuz Eylül Univ. J. of Science and Engineering, Vol 5, No.1, 113-123 (Jan. 2003).
- Atas,A., Sen, F., Arslan, N. "Mechanical Behaviours of Laminated Composite Plates with Two Parallel Pin-loaded Holes under Static Loads", CBU. Soma J. of Vocational Chool of Technical Sciences, Vol 2, No.12, 83-96 (2009).

## 7.6 Papers presented at national conferences and published in the proceedings

- Arslan, N., Turgut, A., Pıhtılı, H., “Stress concentration factors of the different fiber reinforced composite plates with U notches by using finite elements methods”, 5.Denizli Material Symposium, 668-680, Denizli, 7-9 April 1993.
- Pıhtılı, H., Turgut, A., Arslan, N., “Stress Analysis of Roller Chanin Links according to different reinforcement fiber angles”, 5. 5.Denizli Material Symposium, 692-701, Denizli, 7-9 April 1993.
- Arslan, N., Turgut, A., Gür, M., “Elasto-Plastic Stress Analysis of the isotropic U notched plates”, 6. Denizli Material Symposium, 300-310, Denizli, 12-14 April 1995.
- Arslan N., Kaman, M.O., Gür, M., “Elasto-Plastic Stress Analysis of the stepped composite plates with axial loads”, Bilim Günleri MMO Denizli, 51-57, Denizli, 5-7 May 1999.
- Arslan N., Kaman, M.O., Pıhtılı, H., “Elasto-Plastic Stress Analysis of the composite plates with semicircular holes under axial loading conditions”, Bilim Günleri MMO Denizli, 66-72, Denizli, 5-7 May 1999.
- Arslan N., Kaman, M.O., “Elasto-Plastic Stress Analysis of the isotropic plates with semicircular holes and stepped cross sections”, 3.Gap Engineerin Congres, 117-124, Şanlıurfa, 24-26 May 2000.
- Arslan N., Kaman, M.O., “The Effect of reinforcement angles on the elasto-plastic behaviour of the thermoplastic hook block link Part I”, MAMTEK 2001 II.Machine Materials and manufacturing Technology Symposium Celal Bayar Univ. 166-176, Manisa, 7-9 Nov.2001.
- Arslan N., Kaman, M.O., “The Effect of reinforcement angles on the elasto-plastic behaviour of the thermoplastic hook block link Part II”, MAMTEK 2001 II. Machine Materials and manufacturing Technology Symposium Celal Bayar Univ.,177-188, Manisa, 7-9 Nov. 2001.
- Arslan N., Kaman, M.O., Gür, M., Pıhtılı, H., “Plastic stress analysis of hook block link”, MAMTEK 2001 II. Machine Materials and manufacturing Technology Symposium Celal Bayar Univ.,, 189-198, Manisa, 7-9 Nov. 2001.
- Pıhtılı H., Özel C., Arslan N., “The improvement of the mechanical behaviour of the thermoplastic composites oriented with different fiber reinforcement”, IV. Mühendislik Mimarlık Sempozyum, Balıkesir Ün., 119-130, Balıkesir, 11-13 Eylül 2002.
- ÖZEL C., Arslan N., “Composite application on the gear having changeable teeth and stress analysis”, TİMAK, Design, Manufacturing and Anaylsis Congres, Balıkesir Univ. Mechanical eng. Dpt. 296-308, Balıkesir, 28-26 April 2006.
- BALIKOĞLU F., ATAŞ A., ARSLAN N., VARTM composite production process application on marine vehicles, TİMAK 2012, Design, Manufacturing and Anaylsis Congres, Balıkesir Univ. Mechanical eng. Dpt.,480-495, 29-30 April.
- ESEN Ö., BALIKOĞLU F., ARSLAN N., Composite material applications on the leaf springs of vehicles and fatigue analysis, TİMAK 2012, Design, Manufacturing and Anaylsis Congres, Balıkesir Univ. Mechanical eng. Dpt.496-510, 29-30 Nov.
- POLAT O., BALIKOĞLU F., ARSLAN N., Fatigue life identifying of the S tine cultivator by using experimental technics, TİMAK 2012, Design, Manufacturing and Anaylsis Congres, Balıkesir Univ. Mechanical eng. Dpt 311-320, 29-30 Nov.

- POLAT O., BALIKOĞLU F., ARSLAN N., Computer aided fatigue life identifying of the S tine tiller type cultivator, TİMAK 2012, Design, Manufacturing and Anaylsis Congres, Balikesir Univ. Mechanical eng. Dpt 321-329, 29-30 Nov.
- ATAŞ A., BALIKOĞLU F., ARSLAN N., SOUTIS C., A strength prediction method for bolted joints fibre reinforced plastic laminates based on subcritical damage modelling, TİMAK 2012, Design, Manufacturing and Anaylsis Congres, Balikesir Univ. Mechanical eng. Dpt , 528-535, 29-30 Nov.
- Fatih BALIKOĞLU, Nurettin ARSLAN, The Effect of The Conventional and Different Materials Types in The Marine Composite Plates on The Production Parameters and Mechanical Properties, II. Ulusal Ege Kompozit Malzemeler Sempozyumu, 07-09 Kasım 2013.

## 7.7 Other publications

### Master Thesis

- Arslan, N., "Stress concentration factors of the composite plates with U notches by using finite elements methods", Advisor: Prof. Dr. Aydın TURGUT, Firat University Mechanical Engineering Department, Elazığ, 1990.

### PhD Thesis

- Arslan, N., "Elasto-Plastic Stress Analysis of the isotropic U notched plates by using finite elements methods", Advisor: Prof. Dr. Aydın TURGUT, Firat University Mechanical Engineering Department, Elazığ, 1995.

### Papers presented at other international conferences

### Papers published in other national journals

### Working Notes / Technical Workshops

### Books and Book Chapters

## 8. Projects

- 2002- DPT (Prime Ministry State Planning Organization), **Project Manager**, "The effect of The Cell Size and Dimensions in Honeycomb Composite Structures made of Thermoplastic (PVC), Aluminum (2024, 6061-T6) and Nomex (T412) Paper on The Mechanical Behaviours", Firat University.
- 2003, Composite Implant Production for Human Body, FÜBAP-890, Project Manager, Firat University.
- 2007, Elastic and Plastic Behaviour of The woven Reinforced Composite Laminated Plates with Pin-Holes. Project Manager, Balikesir University.
- Failure Analysis of The Composite Laminated Plates with Pin Connection Produced under different cure temperature and time Conditions. Project Manager, Balikesir University.
- 2008, The Prototype Production of the Composite Leaf Springs and Fatigue Analysis, Project Manager, Balikesir University.

- 2013, The Effect of The Conventional and Different Materials Types in The Marine Composite Plates on The Production Parameters and Mechanical Properties, Project Manager, Balıkesir University.
- 2013 The use of Plantal and Thermoset composite Wastes in The Composite Sandvich Structure as a Core Material and Fatigue Analysis, Project Manager, Balıkesir University., Continue.
- 2014, Cure Kiln Design and Control System for Thermowood Production under Alternative Heating System Conditions, Project Manager, TÜBİTAK 2209/A .

#### **9. Tasks in International Symposium, Conference, Workshop**

- 2006 Congress of the Design, Manufacturing and Analysis, **Member of Organizing Committee**, Balıkesir University,.
- TÜBİTAK/TEYDEB Member of Committee Industrial R&D Project Evaluation Committee.

#### **10. Administration Roles**

- President of Mechanical Engineering Department Balıkesir University (2006-2007)
- President of Celal Bayar University –Technology Faculty, Department of Energy Engineering Department (2015-...)

#### **11. Memberships in scientific organizations**

#### **12. Awards**

#### **13. Certifications**

#### **14. Private Sector Experience (in Detail)**

**2007–2011: AYSAN ANADOLU YAY SANAYİ – AYSAN ÇELİK MAKİNE SAN. VE TİC. A.Ş. İZMİR**

- ISO9001, TS16949 Management System Certification.
- R&D and quality control Laboratory setup,
- Leaf spring production process phase evaluation for IVECO OEM,
- Heat treatment line design and control/automation improvement works,
- Shot Peening process evaluation and improvement works of the quality plans,
- Hot-Dip Galvanizing Process feasibility study and design and selectin of manufacturing equipments.
- Fatigue test design and setup of the S tine type for cultivators,
- Design of the new type cultivator and ripper,
- Design of the new and special harvesting machine with 5 knives,
- Desing of special wood clips and sheet metal moulding improvement works PART I.

**2012–2016: NOVAORMAN Ürünleri San. Tic. A.Ş. GEREDE / BOLU**

- KOSGEB Project Manager
- Cure Kiln Design and Control System for Thermowood Production under Alternative Heating System Conditions, Project Manager
- Desing of special wood clips and plastic moulding improvement works PART II.
- Termowood prduction and tooling line design and automatic transpotration setups.
- Wood stracking machine design with fully automatic working capability.

**14. Undergraduate and graduate courses given in the last five years**

Academic Year	Semester	Course Title	Weekly Hours		Number of Students
			Theoretical	Application	
2010-2015 (undergraduate)	Fall	Dynamics, Strength I,	3	0	100
		Composite material mechanics	2	0	50
	Spring	Statics, Strength II,	3	0	100
		Int. to Finite Elements Methods	2	0	50
2010-2015 (graduate)	Fall	Mechanics of Composite Laminated plates	3	0	10
		Advanced Strength	3	0	10
	Spring	Applied Stress Analysis	3	0	10
		Theory of Elasticity	3	0	10