



PROF.DR. Hilmi Demiray

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1. Name : **Hilmi Demiray**
2. Birth Date : **10.02.1942**
3. Academic Title : **Professor**
4. Education :

DATES	DEGREE	UNIVERSITY	DEPARTMENT
1962-1966	BS	Istanbul Technical University	Civil Engineering
1966-1967	MS	Istanbul Technical University	Civil Engineering(Mechanics)
1967-1971	PhD	Princeton University	Aerospace and Mechanical Sciences

5. Academic Titles

YEAR	TITLE	UNIVERSITY	DEPARTMENT
1974	Senior Research Scientist	TUBITAK Marmara Research Center	Applied Mathematics
1976	Assoc. Prof.	Istanbul Technical University	Engineering Sciences
1982	Full. Prof.	Istanbul Technical University	Engineering Sciences

6. Supervised MS and PhD Theses

6.1. MS Theses

I cannot remember

6.2. PhD Theses

1. AliErcengiz,“Harmonicwavesinaprestressedviscoelastictubefilledwitha viscous fluid”, Istanbul Technical University, 1992.
2. TacettinSarioğlu,“MechanicalModellingofWetBones”,IstanbulTechnical University,1993.
3. NalanAntar,“Nonlinearwavesinafluid-filledthinelastictube”,Istanbul Technical University, 1999.

4. Güler Akgün, "Modulation of nonlinear waves in fluid-filled viscoelastic tubes", Istanbul Technical University, 1999.
5. İlkay Bakırtaş, "Propagation of nonlinear waves in fluid-filled tubes with variable radius", Istanbul Technical University, 2003.
6. Tay Kim Gaik, "Forced Korteweg-de Vries equation in fluid-filled elastic tubes", Universiti Teknologi Malaysia, 2006.
7. A. Erinc Özden "Head-on Collision of Solitary Waves", Isik University, Sile-Istanbul-Turkey, 2015.

7. Publications

1. Small torsional oscillations of an initially twisted circular cylinder (with E. S. Şuhubi), Int. J. Engng. Sci., 8, 19-30, 1970.
2. Small flexural oscillations of an initially stretched circular cylinder, Int. J. Nonlinear Mechanics, 6, 135-141, 1971.
3. On the nonlocal theory of quasi-linear elastic dielectrics, Int. J. Engng. Sci., 10, 285-292, 1972.
4. The application of mechanics to some problems in rubber industry (with M. Levinson), Symposium on Application of Solid Mechanics, University of Waterloo, Kanada, 1972 (proceedings, s. 1- 28).
5. On the elasticity of soft biological tissues, J. Biomechanics, 5, 309-311, 1972.
6. The long fluid storage bag: A contact problem for a closed membrane (with M. Levinson), Int. J. Mech. Sci., 14, 431-439, 1972.
7. On the linear constitutive equations of transversely isotropic, incompressible and elastic materials (with M. Levinson), Rubber Chemistry and Technology, 45, 1104-1110, 1972.
8. Constitutive equations of a plasma with bound charges (with A. C. Eringen), Plasma Physics, 15, 889-901, 1973.
9. Continuum theory of a slightly ionized plasma (with A. C. Eringen), Plasma Physics, 15, 903-920, 1973.
10. A continuum theory of solids with diatomic structure, Int. J. Engng. Sci., 11, 1237-1246, 1973.
11. A continuum theory of diatomic elastic dielectrics, Letters in Appl. And Engng. Sci., 1, 505-516, 1973.
12. A continuum theory of polar elastic dielectrics (with A. C. Eringen), Letters in Appl. and Engng. Sci., 1, 517-527, 1973.

13. Pure flexure of a layered orthotropic shell-elasticity study of a tire related problem (with M. Levinson and S. C. Scheung), *Rubber Chemistry and Technology*, 46, 294-304, 1973.
14. Motion of electron gas in elastic conducting solids (with A. C. Eringen), *Plasma Physics*, 16, 589-602, 1974.
15. Inertia controlled theory of elastic conductors, *J. Pure and Appl. Sci.*, (METU), 7, 195-210, 1974.
16. On the contact problems for reinforced cylindrical membranes, *Bull. Tech. U. Ist.*, 27, 11-23, 1974.
17. Constitutive equations of a binary mixture of dense gases, *Letters in Appl. and Engng. Sci.*, 2, 189-202, 1974.
18. On the constitutive equations of biological materials, *J. Appl. Mech.*, ASME. 42 Series E, 242-243, 1975.
19. Axially symmetric motions of a two-layered cylindrical shell, *Bull. Tech. U. Ist.*, 28, 21-31, 1975.
20. On the stress-strain relations of a composite made of two transversely isotropic media, *J. Pure and Appl. Sci.*, (METU), 8, 63-68, 1975.
21. Deformation of an infinite elastic dielectric due to rigid conducting sphere with surface charge, *Bull. Pol. Acad. Sci.*, 23, 75- 79, 1975.
22. A simple model for laminated tires under pure bending, *Bull. Tech. U. Ist.*, 28, 40-59, 1975.
23. A stability analysis of rubber-like sandwich beams (with F. Güzeltan), *Letters in Appl. and Engng. Sci.*, 3, 143-153, 1975.
24. On the finite torsion of biological tissues, *Letters in Appl. and Engng. Sci.*, 3, 143-153, 1975.
25. A two dimensional lattice model for composites reinforced with orthogonal fibers (with A. C. Eringen ve M. N. L. Narasimhan), *Letters in Appl. and Engng. Sci.*, 3, 295-309, 1975.
26. A structural model for oriented materials, *Bull. Pol. Acad. of Sciences, Ser. Sci. Tech.*, 23, 493-500, 1975.
27. On the deformation of highly elastic solids, *Letters in Appl. and Engng. Sci.*, 4, 117-126, 1976.
28. Stresses in ventricular wall, *J. Appl. Mech.*, ASME, 98, 194-197, 1976.
29. A discrete model for composites reinforced with orthogonal fibers, *J. Pure and Appl. Sci.*, (METU), 9, 15-30, 1976.

30. On the acceleration waves in reinforced composites, *Letters in Appl. and Engng. Sci.*, 4, 227-234, 1976.
31. Large deformation analysis of soft biomaterials (with R. P. Vito), *Int. J. Engng. Sci.*, 14, 789-793, 1976.
32. Large deformation analysis of some basic problems in biophysics, *Bull. Math. Biology*, 38, 701-712, 1976.
33. Wave propagation in a prestressed reinforced composites, *Pol. Acad. Sci., The Engineering Transaction*, 24, 549-558, 1976.
34. Finite elasticity of biological tissues, *J. Pure and Appl. Sci., (METU)*, 10, 45-52, 1977.
35. A continuum theory of diatomic solids: viewed as directed media, *J. Engng. Math.*, 11, 257-271, 1977.
36. A nonlocal continuum theory for diatomic solids, *Int. J. Engng. Sci.*, 15, 623-644, 1977.
37. A mixture model for wet bones: Part I (with N. Güzelsu), *Int. J. Engng. Sci.*, 15, 707-718, 1977.
38. Wave propagation in viscoelastic composites reinforced by orthogonal fibers (with A. C. Eringen), *J. Sound and Vibration*, 55, 509-519, 1977.
39. Wave propagation in orthogonally reinforced composites (with A. C. Eringen), *Letters in Appl. and Engng. Sci.*, 5, 433-445, 1977.
40. On nonlocal diffusion of gases (with A. C. Eringen), *Arch. for Mechanics, Pol. Acad. Sci.*, 30, 65-77, 1978.
41. A nonlocal viscous model for plug formation in plates (with A. C. Eringen), *Int. J. Engng. Sci.*, 16, 287-297, 1978.
42. A continuum theory of solid state plasma, *J. Tech. Physics, Pol. Acad. Sci.*, 19, 267-276, 1978.
43. Impact of nonlocal thin elastic plates by a cylindrical projectile (with A. C. Eringen), *Int. J. Engng. Sci.*, 16, 905-916, 1978.
44. Perforation of nonlocal visco-plastic plates by a cylindrical projectile (with A. C. Eringen), *J. of Franklin Institute*, 306, 209- 224, 1978.
45. Penetration of nonlocal viscoelastic plates by a cylindrical projectile, *J. Pure and Appl. Sci. (METU)*, 11, 47-66, 1978.
46. Electromechanical properties and related models for bone tissues: A review (with N. Güzelsu), *Int. j. Engng. Sci.*, 17, 813-851, 1979.

47. Constitutive equations of chemically reacting simple solid-fluid mixtures, *J. Pure and Appl. Sci. (METU)*, 12, 345-362, 1979.
48. A continuum theory of thermoelastic solids with diatomic structures, *J. Engng. Math.*, 14, 81-91, 1980.
49. The mechanics of the pericardium: Pericardial effusion (with R. P. Vito), Proceedings of 8th New England Bioengineering Conference, Boston, March 27-28, 1980.
50. A nonlocal theory for nematic liquid crystals, *Archive for Mechanics*, 32, 213-231, 1980.
51. On the constitutive equations of multiatomic solids, *Bull. Tech. U. Ist.*, 33, 100-111, 1980.
52. A continuum theory of generalized thermoelastic solids (with S. Dost), *J. Pure and Appl. Sci., (METU)*, 13, 285-312, 1980.
53. Some constitutive relations for soft biological tissues, *Bull. Tech. U. Ist.*, 33, 111-127, 1980.
54. A continuum theory of chemically reacting mixtures of fluids and solids, *Int. J. Engng. Sci.*, 19, 253-268, 1981.
55. A nonlocal theory of oriented media: A model to diatomic solids, *Bull. Tech. U. Ist.*, 34, 124-143, 1981.
56. A constitutive equation for nematic liquid crystals, *J. Tech. Phys.*, 22, 217-232, 1981.
57. Large deformation analysis of some soft biological tissues, *J. Biomechanical Engineering, ASME*, 103, 73-78, 1981.
58. On the viscoelasticity of diatomic solids, *Int. J. Engng. Sci.*, 20, 237-243, 1982.
59. On a class of a finite deformations of elastic soft tissues (with M. Levinson), *Bull. Math. Biology*, 44, 175-192, 1982.
60. An elasto-plastic theory for porous media (with A. S. Çakmak), *Bull. Tech. U. Ist.*, 35, 195-216, 1982.
61. Diatomic theory and surface energy in solids, *Bull. Tech. U. Ist.*, 35, 213-229, 1983.
62. Electromechanical remodelling of bones, *Int. J. Engng. Sci.*, 21, 1117-1126, 1983.
63. Incremental elastic modulus for isotropic elastic bodies with applications to arteries, *J. Biomechanical Engineering, ASME*, 105, 308-309, 1983.
64. The effect of dielectric properties of a solid on the stress concentration around a circular hole (with A. Ercengiz), *Bull. Tech. U. Ist.*, 36, 243-251, 1983.
65. Incremental elastic modulus for soft tissues, *The Int. J. Artificial Organs*, 6, 220-224, 1983.

66. On large periodic motions of arteries (with R. P. Vito), *J. Biomechanics*, 16, 643-648, 1983.
67. Polar elastic dielectrics and surface energy, *Bull. Tech. U. Ist.*, 36, 521-530, 1983.
68. Large periodic motions of left ventricles, *Bull. Tech. U. Ist.*, 37, 183-197, 1984.
69. Incremental elastic modulus for ventricles in diastole, *J. Biomechanics*, 17, 621-626, 1984.
70. Growth and decay of acceleration waves in a diatomic solid (with H. A. Erbay), *Bull. Tech. U. Ist.*, 37, 331-341, 1984.
71. Incremental modulus for soft biological tissues, *Bull. Tech. U. Ist.*, 38, 39-52, 1985.
72. Effects of twist on pulse waves in arteries, *Bull. Math. Biology*, 47, 495-502, 1985.
73. Effect of transmural pressure on pulse waves in arteries, *J. Pure and Appl. Sci. (METU)*, 18, 1-22, 1985.
74. Torsional vibrations of nonlocal elastic bars (with H. A. Erbay), *Bull. Tech. U. Ist.*, 38, 447-456, 1985.
75. Acceleration waves in a diatomic solid, *Int. J. Engng. Sci.*, 24, 299-307, 1986.
76. A mechanical model for passive behaviour of rats carotid artery (with H. W. Weizsacker and K. Pascal), *Biomedical Engineering*, 31, 46-52, 1986.
77. Pulse wave speed in arteries, *Bull. Tech. U. Ist.*, 38, 127-139, 1986.
78. A finite deformation analysis of arteries (with S. Dost), *Proceedings of XIII ISB Congress: Biomechanics XI-A* (edited by de Groot, G., Hollander, A. P. Huijing, P. A. and Van Ingen Schenau, G. J.) s.537-541, 1987.
79. Pulse waves in prestressed arteries (with H. A. Erbay and S. Erbay), *Bull. Math. Biology*, 49, 289-305, 1987.
80. An orthotropic elastic model for a rat abdominal aorta (with H. A. Erbay and S. Erbay ile birlikte), *Math. Modelling*, 9, 651-658, 1987.
81. Effect of prestress on pulse waves in arteries (with H. A. Erbay and S. Erbay), *ZAMM*, 67, 473-485, 1987.
82. Pulse velocities in initially stressed arteries, *J. Biomechanics*, 21, 55-58, 1988.
83. A stress-strain relation for a rat abdominal aorta (with H. W. Weizsacker, K. Pascal and H. A. Erbay), *J. Biomechanics*, 21, 369-374, 1988.
84. A two layered cylindrical shell model for a dog's thoracic aorta (with R. P. Vito), *Bull. Tech. U. Ist.*, 40, 1-12, 1988.

85. A variational formulation of diatomic elastic dielectrics (with S. Dost), *Int. J. Engng. Sci.*, 26, 865-871, 1988.
86. The role of adventitia in aortic mechanics (with R. P. Vito), *Bull. Tech. U. Ist.*, 42, 29-41, 1989.
87. Diatomic elastic dielectrics with polarization inertia (with S. Dost), *Int. J. Engng. Sci.*, 27, 1275-1284, 1989.
88. Pulse waves in a prestressed elastic tube (with S. Dost), *Int. J. Engng. Sci.*, 28, 1-9, 1990.
89. A layered cylindrical shell model for an aorta (with R. P. Vito), *Int. J. Engng. Sci.*, 29, 47-54, 1991.
90. Wave propagation in a prestressed elastic tube filled with a viscous fluid (with A. Ercengiz), *Int. J. Engng. Sci.*, 29, 575- 585, 1991.
91. Torsional waves in a stressed elastic tube filled with a viscous fluid, *Int. J. Engng. Sci.*, 30, 771-780, 1992.
92. Wave propagation in an artery filled with a viscous fluid, *Proceedings of the 1992 Engineering Systems Design and Analysis Conference*, s. 51-56, June 29- July 3, 1992, Istanbul.
93. Wave propagation through a viscous fluid contained in a prestressed thin elastic tube, *Int. J. Engng. Sci.*, 30, 1607-1620, 1992.
94. Non-symmetrical waves in a prestressed elastic tube filled with an inviscid fluid (with A. Ercengiz), *Int. J. Engng. Sci.*, 32, 605- 616, 1994.
95. A viscoelastic model for arterial wall materials, *Int. J. Engng. Sci.*, 32, 1567-1578, 1994.
96. Propagation of harmonic waves in a prestressed elastic tube filled with a viscous fluid, *Bull. Tech. U. Ist.*, 47, 151-166, 1994.
97. Harmonic waves in a prestressed viscoelastic tube filled with a viscous fluid (with A. Ercengiz), *Int. J. Engng. Sci.*, 33, 105- 117, 1995.
98. Non-symmetrical wave propagation in arteries (with A. Ercengiz), *Acta Mchanica*, 112, 135-148, 1995.
99. Finite axisymmetric deformations of elastic tubes: An approximate method (with H. A. Erbay) , *J. Engng. Math.*, 29, 451-472, 1995.
100. The effect of quadrupole on bone remodelling (with S. Dost), *Int. J. Engng. Sci.*, 34, 257-268, 1996.
101. An evaluation of pulse speed in arteries, *Bull. Math. Biology*, 58, 129-140, 1996.

102. Propagation of harmonic waves in an initially stressed thin elastic tube filled with an inviscid fluid (with S. Dost), Canadian Society of Mechanical Engineering Transactions, 37, 1-15, 1996.
103. A quasi-linear constitutive relation for arterial wall materials, J. Biomechanics, 29, 1011-1014, 1996.
104. Effects of initial stress and wall thickness on wave characteristics in elastic tubes (with N. Antar), ZAMM, 76, 521- 530, 1996.
105. Solitary waves in fluid-filled elastic tubes, Bull. Math. Biology, 58, 939-955, 1996.
106. Nonlinear waves in a prestressed thick elastic tube filled with an inviscid fluid, Int. J. Engng. Sci., 34, 1519-1530, 1996.
107. Electromechanical modelling of living bones (with T. Sarıoğlu), Bull. Tech. Univ. Istanbul, 49, 45-60, 1996.
108. Small but finite amplitude waves in a prestressed viscoelastic thin tube filled with an inviscid fluid, Int. J. Engng. Sci., 35, 353- 363, 1997.
109. Waves in initially stressed fluid-filled thick elastic tubes, J. Biomechanics, 30, 273-276, 1997.
110. Nonlinear waves in an inviscid fluid contained in a prestressed viscoelastic thin tube (with N. Antar), ZAMP, 48, 325-340, 1997..
111. The effects of initial twist on wave characteristics in a prestressed fluid-filled thin elastic tube, Applied Mathematical Modelling, 21, 181-191, 1997.
112. Solitary waves in initially stressed thin elastic tubes, Int. J. Nonlinear Mech., 32, 1165-1176, 1997.
113. On the equivalence of Flügge-Koiter buckling equations to those derived in current literature, J. Engng. Math., 31, 439-448, 1997.
114. Propagation of nonlinear waves in a prestressed thin viscoelastic tube filled with an inviscid fluid, ARI (formerly, Bulletin of Istanbul Technical University), 40, 66-72, 1997.
115. The effect of shear stress on solitary waves in arteries, Bull. Math. Biology, 59, 993-1012, 1997.
116. Solitary waves in a prestressed thick elastic tube containing an inviscid fluid, ZAMM, 77, 741-750, 1997.
117. Wave propagation in a viscous fluid contained in a prestressed viscoelastic thin tube (with G. Akgün), Int. J. Engng. Sci., 35, 1065-1079, 1997.
118. Harmonic waves in an elastic tube filled with a viscous fluid (with N. Antar), J. Engng. Math., 32, 305-320, 1997.

119. Nonlinear wave modulation in a prestressed thin elastic tube filled with an inviscid fluid, *IMA, J. Appl. Math.*, 59, 165-181, 1997.
120. Axial and transverse solitary waves in a prestressed thin elastic tube (with S. Dost) *ARI* (formerly, *Bulletin of Istanbul Technical University*), 50, 201-210, 1998.
121. Nonlinear waves in a fluid filled thick elastic tube, *Int. J. Nonlinear Mech.*, 33, 363-375, 1998.
122. Nonlinear waves in a thick walled viscoelastic tube filled with an inviscid fluid, *Int. J. Engng. Sci.*, 36, 359-362, 1998.
123. On the propagation of solitary waves in a prestressed thin elastic tube filled with an inviscid fluid, *ZAMP*, 49, 538-557, 1998.
124. Nonlinear wave modulation in a fluid filled thick elastic tube, *Int. J. Engng. Sci.*, 36, 1061-1082, 1998.
125. Solitary waves in a thick walled elastic tube (with S. Dost), *Appl. Math. Modelling*, 22, 583-599, 1998.
126. Slowly varying solitary waves in an elastic tube filled with a viscous fluid, *ARI* (formerly, *Bulletin of Istanbul Technical University*), 51, 98-102, 1998.
127. Nonlinear wave modulation in a prestressed fluid filled thin elastic tube (with N. Antar), *Int. J. Nonlinear Mechanics*, 34, 123-138, 1999.
128. Dressed solitary waves in fluid-filled tubes, *Int. J. Nonlinear Mech.*, 34, 185-196, 1999.
129. Nonlinear wave modulation in a prestressed viscoelastic thin tube filled with an inviscid fluid (with G. Akgün), *Int. J. Nonlinear Mech.*, 34, 571-588, 1999.
130. Amplitude modulation of nonlinear waves in a thick walled elastic tube filled with an inviscid fluid, *ZAMP*, 50, 222-243, 1999.
131. A modified reductive perturbation method as applied to non-linear ion-acoustic waves, *Journal of Physical Society of Japan*, 68, 1833-1837, 1999.
132. Dressed solitary waves in thick walled elastic tubes, *ARI*, 51, 228-234 (1999).
133. Propagation of weakly nonlinear waves in a fluid-filled thick viscoelastic tubes, *Applied Math. Modelling*, 23, 779-798 (1999).
134. Modulation of nonlinear waves in a thin elastic tube filled with a viscous fluid, *Int. J. Engng. Sci.*, 37, 1877-1890 (1999).
135. Weakly nonlinear waves in a prestressed thin elastic tube containing a viscous fluid (with N. Antar), *Int. J. Engng. Sci.*, 37, 1859-1875 (1999).

136. Propagation of weakly nonlinear waves in a fluid-filled thin elastic tube, CSME Transactions, 23, 253-265 (1999).
137. A method for higher order expansion in nonlinear ion-acoustic waves, Int. J. Nonlinear Mechanics, 35, 347-353, 2000.
138. On the contribution of higher order terms in solitary waves in fluid-filled elastic tubes, ZAMP, 51, 75-91, 2000.
139. Modulation of nonlinear axial and transverse waves in a fluid-filled thin elastic tube (with G. Akgün), Int. J. Nonlinear Mech., 35, 597-611, 2000.
140. The boundary layer approximation and nonlinear waves in elastic tubes, Int. J. Engng. Science, 38, 1441-1457, 2000.
141. Solitary waves in fluid-filled elastic tubes: Weakly dispersive case, Int. J. Engng. Sci., 39, 439-451, 2001.
142. Modulation of nonlinear waves in a viscous fluid contained in an elastic tube, Int. J. Nonlinear Mech., 36, 85-97, 2001.
143. Interactions of nonlinear acoustic waves in a fluid-filled elastic tube, Int. J. Engng. Sci., 39, 563-581, 2001.
144. Solitary waves in elastic tubes filled with a layered fluid, Int. J. Engng. Sci., 39, 629-630, 2001.
145. Localized traveling waves in a prestressed thick elastic tube, Int. J. Nonlinear Mech., 36, 1085-1095, 2001.
146. Nonlinear waves in a viscous fluid contained in a viscoelastic tube, ZAMP, 52, 899-912, 2001.
147. A note on the traveling wave solution to the perturbed Burgers' equation, Appl. Math. Modelling, 26, 37-40, 2002.
148. Nonlinear waves in a prestressed elastic tube filled with a layered fluid, Int. J. Engng. Sci., 40, 713-726, 2002.
149. Weakly nonlinear waves in elastic tubes filled with a layered fluid, Int. J. Nonlinear Science and Numerical Simulations, 3, 98, 2002.
150. A note on the solution of perturbed Koteweg-de Vries equation, Applied Mathematics and Computation, 132, 643-647, 2002.
151. Propagation of weakly nonlinear waves in fluid-filled thin elastic tubes, Applied Mathematics and Computation, 133, 29-41, 2002.
152. Modulation of nonlinear waves in a viscous fluid contained in a tapered elastic tube, Int. J. Engng. Sci., 40, 1897-1918, 2002.

153. Contribution of higher order terms in non-linear ion-acoustic waves: Strongly dispersive case, *J. Phys. Soc. Japan*, 71, 1921- 1930, 2002.
154. A note on the analytical solution to the modified perturbed Korteweg-de Vries equation, *Applied Mathematics and Computation*, 134, 501-505, 2003.
155. On the derivation of some nonlinear evolution equations and their progressive wave solutions, *Int. J. Nonlinear Mech.*, 38, 63-70, 2003.
156. Contributions of higher order terms to nonlinear waves in fluid- filled elastic tubes: Strongly dispersive case, *Int. J. Engng. Sci.*, 41, 1387-1403, 2003.
157. Amplitude modulation of nonlinear waves in a fluid-filled tapered elastic tube, *ZAMM*, 83, 397-408, 2003.
158. An analytical solution to dissipative nonlinear Schrödinger equation, *Applied Mathematics and Computation*, 145, 179-184, 2003.
159. Nonlinear wave modulation in a fluid-filled linearly tapered elastic tube, *European J. Mechanics: A/Solids*, 22, 603-615, 2003.
160. A note on the exact traveling wave solution to the KdV-Burgers equation, *Wave Motion*, 38, 367-369, 2003.
161. Amplitude modulation of non-linear waves in fluid-filled tapered tubes (with İ. Bakırtaş), *Theoretical and Mathematical Physics*, 137, 1636-1644, 2003.
162. Corrigendum to my paper entitled “ A note on the travelling wave solution to perturbed Burger’s equation[*Appl. Math. Modelling* **26** (2002) 37-40], *Appl. Math. Modelling*, **27**, 489-490, 2003.
163. Solitary waves in a tapered prestressed fluid-filled elastic tube, *ZAMP*, 55, 282-294, 2004.
164. Modulation of nonlinear waves near the marginal state of instability in fluid-filled elastic tubes (with İlkey Bakırtaş), *Applied Mathematics and Computation*, 149, 83-101. 2004.
165. The effect of a bump on wave propagation in a fluid-filled elastic tube, *Int. j. Engng. Sci.*, 42, 203-215, 2004.
166. Weakly nonlinear waves in a linearly tapered elastic tube filled with a fluid, *Mathematical and Computer Modelling*, 39, 151-162, 2004.
167. Amplitude modulation of nonlinear waves in a fluid-filled tapered elastic tube (with I. Bakırtaş), *Applied Mathematics and Computation*, 154/3, 747/767, 2004.
168. A traveling wave solution to the KdV-Burgers equation, *Applied Mathematics and Computation*, 154/3, 665-670, 2004.

169. On the existence of some evolution equations in fluid-filled elastic tubes and their progressive wave solutions, *Int. J. Engng. Sci.*, 42, 1693-1706, 2004.
170. Modulation of nonlinear waves in fluid-filled elastic tube with stenosis, *Int. J. Mathematics and Mathematical Sciences*, 2204:60, 3205-3218, 2004..
171. Complex traveling wave solutions to the KdV and Burgers equations, *Applied Mathematics and Computation*, 162/2, 925-930, 2005.
172. On some nonlinear waves in fluid-filled viscoelastic tubes: Weakly dispersive case, *Comm. In Nonlinear Science and Numerical Simulations*, 10, 425-440, 2005.
173. Higher order approximations in reductive perturbation method: Strongly dispersive case, *Comm. In Nonlinear Science and Numerical Simulations*, 10/5, 549-558, 2005.
174. Weakly non-linear waves in a tapered elastic tube filled with an inviscid fluid (with İ. Bakırtaş), *Int. J. Nonlinear Mechanics*, 40, 785-793, 2005.
175. The modified reductive perturbation method as applied to Boussinesq equation: Strongly dispersive case, *Applied Mathematics and Computation*, 164, 1-9, 2005.
176. Head-on-collision of solitary waves in fluid-filled elastic tubes, *Applied Mathematics Letters*, 18, 941-950, 2005. .
177. A complex traveling wave solution to the KdV-Burgers equation, *Physics Letters A*, 344(6), 418-422, 2005.
178. Weakly nonlinear waves in a viscous fluid contained in a viscoelastic tube, *European Journal of Mechanics A/ Solids*. 24, 337- 347, 2005.
179. Nonlinear waves in a viscous fluid contained in an elastic tube with variable cross-section, *Int. J. Non-linear Mech.*, 41, 258-270, 2006.
180. Interaction of nonlinear waves governed by Boussinesq equation, *Chaos, Solitons and Fractals*, 30, 1185-1189, 2006.
181. Reflection and transmission of nonlinear waves from arterial branching, *Int. J. Engr. Sci.*, 44, 1164-1172, 2006.
182. The effect of higher order approximation in a fluid-filled elastic tube with stenosis, *Zeitschrift für Naturforschung*, 61A, 641-651, 2006.
183. Solitary waves in a fluid-filled thin elastic tube with variable cross-section, *Com. Nonlinear Science and Numerical Simulation*, 12, 735-744, 2007.
184. Waves in fluid-filled elastic tubes with a stenosis: Variable coefficient KdV

equation, *J. Computational and Appl. Math.*, 202, 328-338, 2007.

185. Interactions of nonlinear waves in fluid-filled elastic tubes, *Zeitschrift für Naturforschung*, 62A, 21-28, 2007.

186. Interactions of nonlinear ion-acoustic waves in collisionless plasma, *J. Computational and Appl. Math.*, 206.826-831, 2007.

187. The effect of a bump on wave propagation in a viscous fluid of variable viscosity, *Appl. Math. Computation*, 187, 1574- 1583, 2007.

188. The modified reductive perturbation method as applied to Boussinesq equation, *Zeitschrift für Naturforschung*, 62 A, 347-352, 2007

189. Nonlinear waves in fluid-filled elastic tubes: A model to large arteries, *Vibration Problems:ICOVP-2005, Springer Proceedings in Physics*, Vol.111, pp.143-150, 2007.

190. Weakly nonlinear waves in a fluid with variable viscosity contained in a prestressed elastic tube, *Chaos, Solitons and Fractals*, 36, 196- 202, 2008.

191. Forced Korteweg-deVries-Burgers equation in an elastic tube filled with a variable viscosity fluid (with Tay Kim Gaik), *Chaos, Solitons and Fractals* ,38, 1134-1145, 2008.

192. Nonlinear wave modulation in a fluid-filled elastic tube with stenosis, *Zeitschrift für Naturforschung*, 63A, 24-34, 2008.

193. Nonlinear waves in a fluid-filled inhomogeneous elastic tube with variable radius, *International Journal of Nonlinear Mechanics*, 43, 241-245, 2008.

194. Nonlinear waves in an elastic tube with variable prestretch filled with a fluid of variable viscosity, *Int. J. Engr. Sci.*, 46, 949-957, 2008.

195. Weakly nonlinear waves in a fluid-filled elastic tube with variable stretch, *Int. J. Nonlinear Mech.*, 43, 887-891, 2008.

196. Modified reductive perturbation method as applied to long water waves: The Korteweg-deVries hierarchy, *Int. J. Nonlinear Sci.* ,6, 11-20, 2008.

197. Travelling waves in a prestressed elastic tube filled with a fluid of variable viscosity (with Tay Kim Gaik), *Vibration Problems:ICOVO-2007*, Springer Proceedings in Physics, Vol. 126, pp.101-110, 2008.
198. Nonlinear waves in a stenosed elastic tube filled with a viscous fluid: Forced Perturbed Korteweg-de Vries Equation (with Tay Kim Gaik and Ong Chee Tiong), *Vibration Problems:ICOVP-2007*, Springer Proceedings in Physics, Vol. 126, pp.157-163, 2008.
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214. A note on the amplitude modulation of symmetric regularized long-wave equation with quartic nonlinearity, *Journal of Engineering Mathematics*, **77(1)**, 181-186, 2012.
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218. A note on the interactions of nonlinear waves governed by generalized Boussinesq equation, *Applied and Computational Mathematics*, **13(3)**, 376-380, 2014.
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222. Interactions of nonlinear electron-acoustic solitary waves with vortex electron Distribution, *Physics of Plasmas*, **22**, 022114(1-6), 2015.
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224. An analysis of higher order terms for ion-acoustic waves by use of the modified PLK method, *Indian Journal of Pure and Applied Mathematics*, **46**, 669-678, 2015.
225. On head-on collision between two solitary waves in shallow water: the use of the extended PLK method (with A. E. Ozden), *Nonlinear Dynamics*, **82**, 73-84, 2015..
226. A note on the cylindrical solitary waves in electron-acoustic plasma with vortex electron distribution (with Cihan Bayındır), *Physics of Plasmas*, **22(9)** 092105(2015).
227. Modulation of electron-acoustic waves in a plasma with kappa distribution, *Physics of Plasmas*, **23** (3), 032109(2016).

Books

1. Solved Problems in Mathematics(Translation), 1974.
2. Mechanics of Deformable Solids(Translation), 1975.
3. Strength of Materials, 1997.

9. Administrative Positions and Employment History 9.1. Administrative Positions

DATES	UNIVERSITY/ INSTITUTION	POSITION
1986-1993	TUBITAK, Marmara Research Center	Director, Basic Research Institute
1999-2005	Işık University	Dean, Faculty of Arts and Sciences.

9.2. Employment History

DATES	TITLE	UNIVERSITY/ INSTITUTION	DEPARTMENT
1974-1979	Senior Sci.	Marmara Research Center	Applied Math.
1979-1982	Doç. Dr	Istanbul Technical University	Engineering Sciences
1982-1986	Prof. Dr.	Istanbul Technical University	Engineering Sciences
1986-1989	Prof. Dr.	Istanbul University	Mathematics
1989-1999	Prof. Dr.	Istanbul Technical University	Engineering Sciences
1999 --	Prof. Dr.	Işık University	Mathematics

P.S.Between 1979-1997 I worked at TUBITAK Marmara Research Center at various positions(part-time).

10. Scientific and Professional Membership

1. TurkishAcademyofSciences(1994-2011)
2. InternationalSocietyofEngineeringSciences
3. TurkishMathematicalSociety
4. Turkish National Committe on Theoretical and Applied Mathematics

11. Awards and Honours

1. Certificate of Turkish Society of Civil Engineers for outstanding performance during undergraduate education(1967).
2. TUBITAK Award for young Turkish Scientist(1974).
3. Science Award of Sedat Simavi Foundation (1978).
4. TUBITAK Science Award (1984).
5. Science Award of Istanbul Technical University Foundation(1997).

12. Courses Taught (Last Two Years)

- * Multivariable Calculus
- * Mathematical Theory of Fluids

* Complex Analysis

* Mathematical Theory of Elasticity * Principles of Applied Mathematics

13. Other Academic and Scientific Activities

13.1. Reviewer Activities (SCI-Expanded Journals)

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13.2. Editorship (SCI-Expanded Journals) 1. International Journal of Engineering Sciences

2. ARI)Bulletin of Technical University of Istanbul). 13.3. Other

14. Research Interests

*Nonlinear waves, Continuum Mechanics, Biomathematics