# CURRICULUM VITAE

Spyridon J. Loutridis Associate Professor Sensors & Instrumentation Laboratory Department of Electrical Engineering Technological Educational Institute of Thessaly Larissa, Greece, GR - 41 110 Tel.: +032410684550, E-mail: loutridi@teilar.gr

### I. EDUCATION

**3/2004:** PhD degree with distinction: "*Prognosis and diagnosis of faults on electromechanical systems using time-frequency signal processing techniques.*" Aristotle University of Thessaloniki.

**4/1996:** M.Sc. in Noise and Vibration Studies with distinction. University of Southampton. Thesis tile: "*Acoustics of Small Listening Rooms*".

**11/1993:** Degree in Electrical and Computer Engineering. Aristotle University of Thessaloniki.

# **II. TEACHING ACTIVITY**

#### **Postgraduate courses**

 $4/2016 \mod 7/2016$ : lecturer in module "Sensors and Measurement systems" in the postgraduate program with title: "Energy and Automation Systems", Department of Electrical Engineering.

### **Undergraduate courses**

- 11/2005 to date: as Lecturer or Assistant Profesor at Department of Electrical Engineering teaching a number of courses including: Measurement Technology, Electrical Measurements, Theory of Signals and Communications, Communications and Data Transfer Systems, Digital Systems, Electrotechnology, Electrical Circuit Theory, Telecommunication Systems
- 10/1997 10/2005: Lecturer at the Department of Electrical Engineering, teaching: Measurement Technology, Theory of Signals and Communications, Communications and Data Transfer Systems, Digital Systems, Electrotechnology, Electrical Circuit Theory, Technology of Electrical Components, Electrical Machines, Microprocessors

**9/1998-6/2000:** School for Sound Engineers, Larissa, Greece. Lecturer in a number of courses including: Acoustics, Sound Recording Techniques and Audio Devices.

#### Supervisor in diploma thesis

Supervised 52 student diploma theses in the scientific contexts of: Measuring Technology, Signal Processing, Communication Systems and Data Transmission.

# **III. ADMINISTRATIVE WORK**

- 12/2017 to date: director of the M.Sc. program "Energy and Automation Systems"
- **12/2017 to date:** 12/2017 to date: Chairman of the Department of Electrical Engineering, TEI of Thessaly
- 12/2017 to date: Member of the Institutional Research Committee
- **3/2018 to date:** Faculty representative in the Council for Training and Lifelong Learning
- **9/2015 to date:** Member of the three-member administrative committee of the postgraduate program "Energy Technologies and Automation Systems", Department of Electrical Engineering
- **9/2015 to 5/2016:** Member of the five-member administrative panel of the postgraduate program "Computer Engineering and Measurement Systems" jointly organised and run by the Departments of Electrical and Computer Engineering
- 9/2010 to 3/2011: Head of the A' Division, Department of Electrical Engineering
- 9-2009 to 6/2010: Deputy head of the A' Division, Department of Electrical Engineering
- 2/2008-2/2011 and 12/2014-present: Responsible of the "ERASMUS" European student exchange program for the Department of Electrical Engineering
- 1/2008-2/2011: Member of the Internal Evaluation Committee, Department of Electrical Engineering.

### **Participation in Committees**

Participated as a member in three electoral processes, in many equipment procurement committees, and also committees for the staff elections.

# **IV. WORK EXPERIENCE**

**9/2010-to date:** PROJECT ADAPT2CHANGE, LIFE 09/GR/ENV/000296, "*Adapt agricultural production to climate change and limited water supply*", working as sensors and signal processing expert.

**6/1998-10/2005:** working as a freelancer electrical engineer and acoustic consultant, employed in the study and of measurement systems, fault diagnosis, data collection systems, sound insulation and concert hall acoustics

**1/2000-12/2001:** working as technical consultant in EVEN STUDIO, OE. Study and supervision and electroacoustic installations, on field evaluation of the performance of the electroacoustical system

**9/1998-1/2000:** Project title: "*Health and Safety in Agriculture*". University of Thessaly, General Secretary for Research and Technology, I have conducted noise and vibrations measurements on a number of commercial tractors working under field conditions.

6/1996-1/1998: Greek Airforce, 110 BW, Conducting electromechanical studies and

various other projects related to engineering work.

### V. RESEARCH

**9/2010-to date:** PROJECT ADAPT2CHANGE, LIFE 09/GR/ENV/000296, "*Adapt agricultural production to climate change and limited water supply*", as research on sensors and signal processing topics

**10/2011-:** THALES PROJECT "*Nanostructured geopolymers and calcium phosphate based biocements and implants*", General Secretary for Research and Technology, as research on signal processing topics

**9/2004-12/2007:** ARCHIMEDES RESEARCH PROJECT: "Processing of digital images from laser velocimeter for parameter control of two-phase mixtures in water sprays", as sensors and signal processing expert.

**9/2002-8/2005:** Programme for the Support of Research in Greece, funded by the General Secretariat for Research and Technology, Aristotle University of Thessaloniki, Project Title: "*Development of a system for fault identification on gears and bearings elements using time-frequency signal processing techniques*". Doing basic research as a PhD student.

**9/1998-1/2000:** Project title: "*Health and Safety in Agriculture*". University of Thessaly, General Secretary for Research and Technology, I have conducted noise and vibrations measurements on a number of commercial tractors in regard to the driver safety when working under field conditions.

### VI. RESEARCH TOPICS

- Development of measurement systems for recording and processing of dynamically changing physical quantities
- Prognosis and diagnosis of faults in mechanical systems using advanced signal processing algorithms and non-destructive testing
- Wavelet Transform, Wigner-Ville distribution, Hilbert-Huang transform and Fractal mathematics with emphasis on time-series scaling
- Noise and Vibration measurement and control, sound diffusion, electroacoustical tranducers.

### VII. RECOGNITION AND IMPORTANCE OF SCIENTIFIC WORK

### Total number of citations: 1380, h-index: 15

Sources: ISI, Science Direct, Scopus, Citebase.

The method proposed in article [J10] has been adopted and implemented in commercial measurement systems, such as, CLIO versions 7.0-10.0 and ARTA versions 1.4.0-1.7.0

Active referee in the international scientific journals listed below:

- Measurement Science and Technology (Institute of Physics): IF = 1.492, 10 κριτικές
- 2. Measurement (*Elsevier*): IF = 1.742, 2 reviews
- 3. Sensors (*MDPI Open Access Publishing*): IF = 2.437, 8 reviews
- 4. Mechanical Systems and Signal Processing (*Elsevier*): IF = 3.418, 16 reviews
- 5. IEEE Transactions on Reliability (*IEEE*): IF = 2.287, 1 review
- 6. International Journal of Solids and Structures (*Elsevier*): IF = 2.560, 1 review
- 7. Engineering Structures (*Elsevier*): IF = 2.275, 2 reviews
- 8. Digital Signal Processing (*Elsevier*): IF = 1.558, 8 reviews
- 9. Journal of the Acoustical Society of America (A.I.P.): IF = 1.536, 2 reviews
- 10. Journal of Sound and Vibration (*Elsevier*): IF = 2.300, 16 reviews
- 11. Journal of Vibration and Acoustics (A.S.M.E): IF = 1.32, 4 reviews
- 12. Smart Materials and Structures (*Institute of Physics*): IF = 2.327, 1 review
- 13. European Journal of Mechanics A/Solids (*Elsevier*): IF = 2,467, 1 review
- 14. Physica A: Statistical Mechanics and its Applications (*Elsevier*): IF = 1.738, 2 reviews
- 15. Mechanism and Machine Theory (*Elsevier*): IF = 1.971, 2 reviews
- 16. African Journal of Mathematics and Computer Science Research, 1 review
- 17. The ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, 1 review
- 18. Journal of Vibration and Control (Sage Publications): IF = 1.632, 1 review
- 19. Shock and Vibration (*IOS Press*): IF = 0.77, 2 reviews
- 20. Quantitative Finance (Taylor & Francis): IF = 0.794, 1 review
- 21. Journal of Plant Breeding and Crop Science (Academic Journals Organization), 1 review
- 22. International Journal of Engineering, Science and Technology (IJEST), 1 review
- 23. Polish Journal of Environmental Studies: IF = 0.871, 1 review
- 24. African Journal of Agricultural Research AJAR: IF = 0.263, 4 reviews
- 25. International Journal of Decision Support Systems (Inderscience), 1 review
- 26. British Journal of Applied Science & Technology (*Sciencedomain*): IF = 0.28, 2 reviews
- 27. Machines (MDPI): IF = 1.860, 2 reviews
- 28. Engineering Science and Technology (*Evise*): IF = 0.654, 1 review
- 29. Energies (*MDPI*): IF = 2.468, 3 reviews.

Total number of reviews submitted to the above journals: 78

# **VIII. PUBLICATIONS**

#### Books

**B1.** <u>S.J Loutridis</u>, "Technology of Sensors and Measurement Systems" ION Publishing, Athens 2008

**B2.** <u>S.J. Loutridis</u>, "*Electroacoustics & Sound System Installations*", ION Publishing, Athens 2009

**B3.** <u>S.J. Loutridis</u>, "Design of Audio Frequency Electronics", ION Publishing, Athens 2010

**B4.** <u>S.J. Loutridis</u>, "Introduction to Electrical Circuits Analysis, - Volume I, Direct current", ION Publishing, Athens 2011

**B5.** <u>S.J. Loutridis</u>, "Introduction to Electrical Circuits Analysis, - Volume II, alternating current", ION Publishing, Athens 2011

**B6.** <u>S.J. Loutridis</u>, "*Electrotechology for Mechanical Engineers*", ION Publishing, Athens 2011

**B7.** <u>S.J. Loutridis</u>, "Introduction to Electrical Circuits Analysis, - Volume III Linear Transforms, two-port networkst", ION Publishing, Athens 2011

B8. S.J. Loutridis, "Introduction to Electronics", Tziolas publishing, Thessaloniki 2014

**B9.** <u>S.J. Loutridis</u>, "Acoustics – Principles & Applications", Tziolas publishing, Thessaloniki 2015

**B10.** <u>S.J. Loutridis</u>, "Analog and Digital Signal Processing", Tziolas publishing, Thessaloniki 2016

**B11. S. J. Loutridis**, "*Electrical Circuits - Applications and Analysis with MATLAB and SPICE*", Tziola Publications, Thessaloniki 2018.

**B12. S. J. Loutridis**, "*Measurements in Electrical and Electronic Circuits*", *Tziolas Publications*, (under issue).

#### **Book chapters**

**Bch1.** D. Moshou, I. Gravalos, D. Kateris, A. Natsis, N. Sawalhi and <u>S. Loutridis</u>. 2012. Condition monitoring in centrifugal irrigation pumps with self-organizing feature visualisation. In book: ICT FOR AGRICULTURE, RURAL DEVELOPMENT AND ENVIRONMENT, Where we are? Where we will go? Thomas Mildorf and Karel Charvat jr. Eds., Czech Centre for Science and Society, Prague, Czech Republic, pp.230-240, ISBN: 978-80-905151-0-9.

**Bch2.** D. Moshou, D. Kateris, N.Sawalhi, <u>S.Loutridis</u> and I. Gravalos, "*Fault Severity Estimation in Rotating Mechanical Systems Using Feature Based Fusion and Self-Organizing Maps*", Artificial Neural Networks – ICANN, in book: Lecture Notes in Computer Science, Volume 6353/2010, Konstantinos Diamantaras, Wlodek Duch, Lazaros S. Iliadis (Eds.), Springer, 2010, p.p. 410-413, ISBN 978-3-642-15821-6.

#### Articles published in International Journals

**J1.** E. Douka, <u>S.J. Loutridis</u>, A. Trochidis 2003 Crack identification in beams using wavelet analysis. *International Journal of Solids & Structures;* Vol. 40, pp. 3557-3569

**J2.** E. Douka, <u>S.J. Loutridis</u>, A. Trochidis 2004 Crack identification in plates using wavelet analysis. *Journal of Sound and Vibration*; Vol. 270, pp. 279-295

**J3.** <u>S.J. Loutridis</u>, E. Douka, A. Trochidis 2004 Crack identification in double-cracked beams using wavelet analysis. *Journal of Sound and Vibration;* Vol. 277, pp. 1025-1039

J4. <u>S.J. Loutridis</u> and A. Trochidis 2004 Classification of gear faults using Hoelder exponents. *Mechanical Systems & Signal Processing;* Vol. 18, pp. 1009-1030

J5. <u>S.J. Loutridis</u> 2004 A local energy density methodology for monitoring the evolution of gear faults. *NDT & E International;* Vol. 37, pp. 447-453

J6. <u>S.J. Loutridis</u> 2004 Damage detection in gear systems using Empirical Mode Decomposition. *Engineering Structures;* Vol. 26, pp. 1833-1841

**J7.** <u>S.J. Loutridis</u>, E. Douka, and L. Hadjileontiadis 2005 Forced vibration behavior and crack detection of cracked beams using instantaneous frequency. *NDT & E International;* vol. 38, pp. 411-419

**J8.** <u>S.J. Loutridis</u> 2005 Resonance identification in loudspeaker driver units. A comparison of techniques. *Applied Acoustics*; Vol. 66(12), pp.1399-1426

**J9.** <u>S. Loutridis</u>, E. Douka, L. Hadjileontiadis, A. Trochidis 2005 A Two-Dimensional Wavelet Transform for detection of cracks in plates. *Engineering Structures;* Vol. 27, pp. 1327-1338

**J10.** <u>S.J. Loutridis</u> 2005 Decomposition of impulse responses using complex wavelets. *Journal of the Audio Engineering Society;* Vol.53(9), pp. 796-811

J11. <u>S.J. Loutridis</u> 2006 Instantaneous energy density as a feature for gear fault detection.

Mechanical Systems & Signal Processing, Vol. 20, pp. 1239-1253

**J12.** <u>S. J. Loutridis</u> 2007 An algorithm for the characterization of time-series based on local regularity. *Physica A: Statistical Mechanics and its Applications*, Vol. 381, pp. 383-398

J13. <u>S. J. Loutridis</u> 2008 Gear failure prediction using multiscale local statistics, *Engineering Structures*, Vol. 30(5), pp. 1214-1223

**J14.** <u>**S. J. Loutridis**</u> 2008 Self-similarity in Vibration Time-series: Application to Gear Fault Diagnostics *Journal of Vibration and Acoustics, ASME,* Vol. 130, 031004

J15. <u>S. J. Loutridis</u> 2009 Quantifying sound-field diffuseness in small rooms using multifractals. *Journal of the Acoustical Society of America*, Vol. 125(3), pp. 1498-1505

**J16.** <u>**S. J. Loutridis**</u> 2009 A Study on the Temporal Evolution and Sound-Field Homogeneity in Small Rooms, *Journal of the Audio Eng Soc.*, Vol. 57(4), pp. 195-204

**J17.** D. Moshou, D. Kateris, N. Sawalhi, <u>S. Loutridis</u> and I. Gravalos 2010 Fault Severity Estimation in Rotating Mechanical Systems Using Feature Based Fusion and Self-Organizing Maps, *Lecture Notes in Computer Science*, Vol. 6353, *Artificial Neural Networks – ICANN 2010*, pp. 410-413

**J18.** <u>S. Loutridis</u>, Th. Gialamas, I. Gravalos, D. Moshou, D. Kateris, P. Xyradakis and Z. Tsiropoulos 2011 A Study on the Effect of Electronic Engine Speed Regulator on Agricultural Tractor Ride Vibration Behavior, *Journal of Terramechanics*, Vol. 48(2), pp. 139-147

**J19.** I. Gravalos, T. Gialamas, <u>S. Loutridis</u>, D. Moshou, D. Kateris, P. Xyradakis and Z. Tsiropoulos, 2011, An experimental study on the impact of the rear track width on the stability of agricultural tractors using a test bench, *Journal of Terramechanics*, Vol. 48, pp. 319-323

**J20.** D. Moshou, A. Natsis, D. Kateris, I. Gravalos, N.Sawalhi, I. Kallimanis, <u>S.</u> Loutridis, Th. Gialamas, P. Xyradakis, Z. Tsiropoulos, 2011, Tractor engine fault detection system based on vibration and acoustic monitoring, *Journal of Agricultural Machinery Science*, Vol. 7(1), pp. 1-6

**J21.** I. Gravalos, D. Moshou, <u>S. Loutridis</u>, Th. Gialamas, D. Kateris, Z. Tsiropoulos, P. Xyradakis, 2012, Design of a pipeline sensor-based platform for soil water content monitoring, *Biosystems Engineering*, Vol. 113(1), pp. 1-10

**J22.** I. Gravalos, <u>S. Loutridis</u>, D. Moshou, T. Gialamas, D. Kateris, Z. Tsiropoulos, P. Xyradakis, 2013, Detection of fuel type on a spark ignition engine from engine vibration behaviour, *Applied Thermal Engineering*, Vol. 54(1), pp. 171-175

**J23.** I. Gravalos, D. Moshou, <u>S. Loutridis</u>, T. Gialamas, D. Kateris, E. Bombolas, Z. Tsiropoulos, P. Xyradakis, S. Fountas, 2013, 2D and 3D soil moisture imaging using a sensor-based platform moving inside a subsurface network of pipes, *Journal of Hydrology*, Vol. 499, pp. 146-153

**J24.** Gravalos, I., <u>Loutridis, S</u>., Gialamas, Th., Avgousti, A., Kateris, D., Xyradakis, P., Tsiropoulos, Z., Libra M., 2014, Vibrational behavior of tractor engine hood. *Fine Mechanics and Optics*, Vol. 59(3), pp. 69-70

**J25.** Kateris D., Moshou D., Pantazi X.-E., Gravalos I., Sawalhi N., <u>Loutridis S.</u>, 2014, A machine learning approach for the condition monitoring of rotating machinery, *Journal of Mechanical Science and Technology*, Vol. 28(1), pp. 61-71

**J26.** Gravalos I., Xyradakis P., Kateris D., Gialamas T., <u>Loutridis S</u>., Avgousti A., Georgiadis A., Tsiropoulos Z., 2016, Comparison and analysis of a small non-road sparkignition engoine operating under different alcohol-gasoline blended fuels, *International Journal of Sustainable Energy*, Vol. 35(3), pp. 258-266

**J27.** I. Gravalos, <u>S. Loutridis</u>, T. Gialamas, D. Kateris, 2016, Dynamic Behavior of an Inpipe Sensor-based Platform for Soil Water Monitoring, *Computers and Electronic in Agriculture*, Vol. 134, pp. 11-18

**Articles published in Conference Proceedings** 

**C1.** I. Gravalos, <u>S. Loutridis</u>, T. Gialamas, D. Moshou, D. Kateris, P. Xyradakis Z. Tsiropoulos, Vibration Analysis of Tractor Engine Hood, 5<sup>th</sup> International Conference on Trends in Agricultural Engineering, September 3-6, Prague, Czech Republic, 2013

**C2.** I. Gravalos, <u>S. Loutridis</u>, D. Moshou, T. Gialamas, D. Kateris, Z. Tsiropoulos, P. Xyradakis Vibration effects of bumper suspension system on pipeline sensor-based platform for soil water monitoring, 1<sup>st</sup> RHEA International Conference on Robotics and associated High-technologies and Equipment for Agriculture, Pisa, Italy, September 19-21st, 2012

**C3.** M. Moschakis, <u>S. Loutridis</u>, V. Dafopoulos, A. Anastasiadis, Prediction of Voltage Sags Applying the Method of Critical Distances to Meshed Power Networks, *The 12<sup>th</sup> Int. Conf on Probabilistic Methods Applied to Power Systems*, 10-14<sup>th</sup> June 2012, Istanbul, Turkey

**C4.** D. Moshou, A. Natsis, D. Kateris, I. Gravalos, N.Sawalhi, <u>S. Loutridis</u>, Th. Gialamas, I. Kallimanis, P. Xyradakis, Z. Tsiropoulos. Agricultural vehicle condition monitoring system based on unsupervised novelty detection. *In Proceedings of the 5th International Conference on Information and Communication Technologies in Agriculture, Food and Environment (HAICTA 2011), September 8-11, 2011, Skiathos Island, Greece.* 

**C5.** D. Moshou, I. Gravalos, D. Kateris, N. Sawalhi and <u>S. Loutridis</u>. Condition monitoring in centrifugal irrigation pumps with self-organizing feature visualisation. *In Proceedings EFITA 2011, Prague, Czech Republic.* 

**C6.** D. Moshou, I. Gravalos, N.Sawalhi, A. Natsis, <u>S. Loutridis</u>, Th. Gialamas, D. Kateris, I. Kallimanis, P. Xyradakis, Z. Tsiropoulos. Tractor engine fault detection system based on vibration and acoustic monitoring, *In Proceedings 11th International Congress on Mechanization and Energy in Agriculture*, 21-23 September 2011, Istanbul, Turkey.

**C7.** D. Moshou, D. Kateris, N. Sawalhi, I. Gravalos, <u>S. Loutridis</u>, T. Gialamas, P. Xyradakis, Z. Tsiropoulos. 2011. Condition monitoring of Mechanical Subsystems of Agricultural Vehicles Based on Fusion of Vibration Features. *In Proceedings of XXXIV CIOSTA CIGR V Conference 2011: Efficient and safe production processes in sustainable agriculture and forestry*, Vienna, Austria.

**C8.** D. Moshou, I. Gravalos, D. Kateris, N. Sawalhi and <u>S. Loutridis</u>. 2011. Condition monitoring in centrifugal irrigation pumps with self-organizing feature visualisation, *In Proceedings EFITA 2011, Prague, Czech Republic.* 

**C9.** D. Moshou, D. Kateris, N. Sawalhi, <u>S. Loutridis</u>, I. Gravalos Fault severity estimation in rotating mechanical systems using feature based fusion and Self-Organizing Maps, 20th International Conference on Artificial Neural Networks, September 15-18, 2010, Thessaloniki, Greece.

**C10.** D. Moshou, D. Kateris, I. Gravalos, <u>S. Loutridis</u>, Sawalhi N., Th. Gialamas, P. Xyradakis, Z. Tsiropoulos, Determination of fault topology in mechanical subsystems of agricultural machinery based on feature fusion and neural networks, 4<sup>th</sup> International Conf. on Agricultural Engineering, September 7-10, 2010, Prague, Czech Republic.

**C11.** <u>S. Loutridis</u>, I. Gravalos, D. Moshou, Th. Gialamas, D. Kateris, P. Xyradakis, Z. Tsiropoulos and A. Georgiades Diagnosis of gearbox faults in agricultural machinery using energy of transient features, 4<sup>th</sup> International Conf. on Agricultural Engineering, September 7-10, 2010, Prague, Czech Republic.

**C12.** I. Gravalos, <u>S. Loutridis</u>, D. Moshou, Th. Gialamas, D. Kateris, P. Xyradakis, Z. Tsiropoulos and A. Georgiades Effects of the Rotor System on Ball Bearing Dynamic Characteristics, *4th International Conf. on Agricultural Engineering, September 7-10, 2010, Prague, Czech Republic.* 

C13. I. Gravalos, S. Loutridis, D. Moshou, Th. Gialamas, D. Kateris, Z. Tsiropoulos, P.

Xyradakis, M. Savoulidis, Z. Koutsofitis An Underground Experimental Robotic Platform for Soil Moisture Monitoring, *International Conference on Agricultural Engineering*, *Clermont-Ferrant, France, September 6-8, 2010.* 

**C14.** I. Gravalos, D. Kateris, P. Xyradakis, T. Gialamas, <u>S. Loutridis</u>, A. Augousti, A. Georgiades, Z. Tsiropoulos, A Study on Calorific Energy Values of Biomass Residue Pellets for Heating Purposes, *Forest Engineering Meeting the Needs of the Society and the Environment FORMEC 2010 Symposium: July 11–14, 2010 - Padova, Italy.* 

**C15.** E. Douka, **S. J. Loutridis** and A. Trochidis (2003) Crack Identification in Beam and Plate Structures using Wavelet Analysis, *4th International Conference* of *Emerging Technologies in NDT, Stuttgart, Germany, 2-4 April 2007.* 

C16. <u>S. J. Loutridis</u> Energy based gear fault diagnosis. *16th European Conference of Fracture (ECF16) Alexandroupolis, Greece, July 3-7, 2006.* 

**C17.** E. Douka, <u>S.J. Loutridis</u> and A. Trochidis Crack Identification in Beam and Plate Structures using Wavelet Analysis. *3rd International Conference. Emerging Technologies in Non-Destructive Testing. May 26-28, 2003 Thessaloniki, Greece* 

**C18.** I. Gravalos, T. Gialamas, <u>S. Loutridis</u>, D. Kateris, Z. Tsiropoulos, 2-D and 3-D representation of soil water content, 8<sup>th</sup> National Conference on Agricultural Engineering, Volos, September 25-26<sup>th</sup>, 2013

**C19** <u>S. J. Loutridis</u> Scaling Phenomena in time-series Nonlinear Science and Complexity, 19<sup>th</sup> Panhellenic Conference Summer School, Thessaloniki July 10-22, 2006.

**C20.** <u>S. J. Loutridis</u> "Fault diagnosis in electromechanical systems using advanced signal processing techniques", Technological Educational Institute of Larissa, May 16<sup>th</sup>, 2005.

**C21.** <u>S. J. Loutridis</u> "*Resonance effects on loudspeaker cones. A comparison of detection techniques*", 2<sup>nd</sup> National Conference on Acoustics, Thessaloniki, 27/9 - 28/9, 2004.

**C22.** <u>S. J. Loutridis</u> "Fault diagnosis in gear pairs using time-frequency signal processing", 1<sup>st</sup> National Conference on Acoustics, Patras, 30/9 - 1/10, 2002.

#### **Lecture Handouts**

"Sensors and Instrumentation", "Introduction to Communication Systems", "Data Communications", "Digital Systems", "Electrical Machines", "Electrical Circuits", "Electroacoustical Applications".

Published by the publishing services of the Technological Educational Institute of Larissa.

#### **Theses and Reports**

**S.J. Loutridis**, (2004) "Diagnosis of faults on electro-mechanical systems using time-frequency signal processing techniques." PhD Thesis, Aristotle University of Thessaloniki.

**<u>S.J. Loutridis</u>**, *«Introduction to Architectural Acoustics»*, European Heritage Campus, Veria 2001.

**S.J. Loutridis**, (1999) "The Effects of Noise and Vibration on Human Beings, Technical report. University of Thessaly".

**S.J. Loutridis,** (1995) "Acoustics of Small Listening Rooms" M.Sc. Thesis, University of Southampton.

### **IX. OTHER INFORMATION**

I can speak and write Greek (native) and English.

I am a member of the Technical Chamber of Greece and a member of the Association of Electrical Engineers

I am a member of the European Institute of Acoustics.

# **REFERENCES**

- Professor F. J. Fahy, BSc, Phd, FIOA, Institute of Sound and Vibration Research, University of Southampton, Highfield, Southampton, 5017 1BJ, tel (+44) 1703 592399.
- Dr. I. Flindell, BSc, Phd, Department of Psychoacoustics, ISVR, University of Southampton, Highfield, Southampton, 5017 1BJ, tel (+44) 1703 627874.
- A. Bakirtzis, Assistant Professor, Aristotle University of Thessaloniki, Department of Electrical Engineering, tel. (2310) 996316.