

**Dr. GEORGE PECHLIVANIDIS**  
**Professor in Hydraulic Engineering**  
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### **PROFESSIONAL EXPERIENCE**

2005 – Present      **Professor in Hydraulic Engineering**  
Alexander Technological Educational Institute of Thessaloniki (Greece)

2002 – 2005      **Reader in Hydraulic Engineering**  
Alexander Technological Educational Institute of Thessaloniki (Greece)

1999 – 2002      **Senior lecturer in Hydraulic Engineering**  
Alexander Technological Educational Institute of Thessaloniki (Greece)

1994 – 1999      **Adjunct Research Fellow in Hydraulic Engineering**  
Alexander Technological Educational Institute of Thessaloniki (Greece)

1991 – 1999      **Technical Director in the Organisation of Water distribution and Wastewater treatment in Thessaloniki**

1975 – 1991      **Head of the Mechanical and Electrical Section in the Organisation of Water distribution and Wastewater treatment in Thessaloniki**

1975              **Graduate Engineer at ZETOR**

### **EDUCATION**

1987 – 1991      **Aristotle University of Thessaloniki (Greece)**  
PhD studies in Hydraulic and Environmental Engineering

1983 – 1986      **Aristotle University of Thessaloniki (Greece)**  
Undergraduate studies in the Department of Civil Engineering (1<sup>st</sup> Class Distinction)

1968 – 1973      **National Technical University of Athens**  
Undergraduate studies in the Department of Mechanical and Electrical Engineering (1<sup>st</sup> Class Distinction)

1964 – 1968      **High School of Kalamaria**  
1<sup>st</sup> Class Grade for National Examinations for University entry

### **PROFESSIONAL AFFILIATIONS**

- Technical Chamber of Greece (TEE)
- Hellenic Hydrologic Union (EYE)

### **SKILLS**

**Computing**

- MATLAB
- LabVIEW
- Compaq Visual FORTRAN
- AutoCAD
- Windows
- Microsoft Office
- Insight 3G

### **Language**

- Greek (mother tongue)
- English (fluent)
- German (very good; MITTELSTUFE II)

### **ACADEMIC AWARDS**

- 1986-1986: Scholarship from the Greek National Scholarship Foundation (IKY) to undertake my PhD studies at the Aristotle University of Thessaloniki, Greece.

### **PUBLICATIONS**

#### **Conference contributions**

1. Πεχλιβανίδης Γ., και Δερμίσσης Β. (1992) “Ηλεκτρονικό θερμόμετρο μέτρησης θερμοκρασίας νερού.” Πρακτ. 5<sup>ο</sup> Πανελ.Συνεδρίου της Ελληνικής Υδροτεχνικής Ένωσης, Λάρισα 504-511.
2. Πεχλιβανίδης Γ., και Δερμίσσης Β. (1992) “Ηλεκτρονικό αγωγιμόμετρο προσδιορισμού πυκνότητας αλμυρού νερού.” Πρακτ. 5<sup>ο</sup> Πανελ.Συνεδρίου της Ελληνικής Υδροτεχνικής Ένωσης, Λάρισα 512-519.
3. Σταμπουντζής Ε., Ντότσιας Α., Αποστόλου Δ., Πεχλιβανίδης Γ. και Δερμίσσης Β. (1992). “Μελέτη πεδίων ταχύτητας και συγκέντρωσης κυλινδρικής κοιλότητας σε εγκάρσια ροή.” Πρακτ. 5<sup>ο</sup> Πανελ.Συνεδρίου της Ελληνικής Υδροτεχνικής Ένωσης, Λάρισα 520-529.
4. Dermisis V., Chrisochoides A., and Pechlivanidis G. (1993). “Saltwater intrusion in submarine pipes.” Proc.,2<sup>nd</sup> International Conference on Water Pollution Modeling, Measuring, and Prediction, Milan, Italy, 253-260.
5. Pechlivanidis G., and Dermisis V. (1993). “Laboratory experimental study on the interfacial shear stresses and velocity distribution in arrested saline wedges.” Proc.,2<sup>nd</sup> International Conference on Water Pollution Modeling, Measuring, and Prediction, Milan, Italy, 417-424.
6. Δερμίσσης Β., και Πεχλιβανίδης Γ. (1993). “Κατανομή ταχυτήτων στη διατμητική ζώνη στρωματώδους ροής.” Ανακοιν. στο 4<sup>ο</sup> Πανελ. Συμπόσιο Ωκεανογραφίας και Αλιείας, Ρόδος 184-187.
7. Πεχλιβανίδης Γ., και Δερμίσσης Β. (1993). “Διατμητικές τάσεις και τυρβώδης κινητική ενέργεια στη διεπιφάνεια στρωματώδους ροής.” Ανακοιν. στο 4<sup>ο</sup> Πανελ. Συμπόσιο Ωκεανογραφίας και Αλιείας, Ρόδος 497-498.
8. Dermisis V., Chrisochoides A., and Pechlivanidis G. (1994). “Laboratory and numerical study of saltwedges in pipe outfalls.” Proc. International Conference on Restoration and Protection of the Environment II, Patra, Greece, 41-48.
9. Pechlivanidis G., and Dermisis V. (1994). “Laboratory instruments measuring temperatures and conductivity in stratified flows.” Proc. International Conference on Restoration and Protection of the Environment II, Patra, Greece, 33-40.

10. Πεχλιβανίδης Γ., και Β.Δερμίσσης (2000). «Επίδραση των αναβαθμών στην κίνηση του νερού της θάλασσας προς το υδατόρευμα.» 2<sup>ο</sup> Εθνικό Συνέδριο Εταιρείας Γεωργικών Μηχανικών Ελλάδος (Ε.Γ.Μ.Ε.) Βόλος
11. Pechlivanidis G. and Dermisis V. (2002). “A laboratory experimental apparatus for the study of ecohydraulics phenomena.” Proc. International Conference on Protection and Restoration of the Environment Volume I.” Skiathos, Crece, pp. 233-240.
12. Pechlivanidis G.I., Dermisis V., Pechlivanidis I.G., 2005, «*The control of salt water intrusion in estuaries of rivers and canals*», National Conference, presented on the 5<sup>th</sup> Congress of Greek Water Resource Treatment, Xanthi, Greece.
13. Ghr.Koutitas, M.Gousidou, G.Pehlivanidis (2005) «Computer Simulation of Long Waves Generation by Landslides», 1<sup>st</sup> International Conference on Experiments/Process/System Modeling/Simulation/Optimisation, Athens .
14. Pechlivanidis G.I., Samaras G.A., Tasoula E., Pechlivanidis I.G., 2006, ‘*Depletion of saline wedge length through low-lying broad-crested orthogonal weir*’, National Conference, presented on the 10<sup>th</sup> National Conference of Greek Hydro-technical Society, Xanthi, Greece.
15. Γ.Πεχλιβανίδης, Γ.Σαμαράς, Κ. Αμοιρίδης, Β.Δερμίσσης (2006). «Εργαστηριακό όργανο σημειακής μέτρησης αλατότητας » 10<sup>ο</sup> Πανελλήνιο Συνέδριο της Ελληνικής Υδροτεχνικής Ένωσης (Ε.Υ.Ε.) Ξάνθη.
16. Pechlivanidis G.I., Pechlivanidis I.G., Samaras G.A., Dermisis V., 2006, ‘*A simultaneous calibration of multiple sensors of anemometers in a laboratory channel or closed conduit*’, National Conference, presented on the 10<sup>th</sup> National Conference of Greek Hydro-technical Society, Xanthi, Greece
17. Γ.Σαμαράς, Γ.Πεχλιβανίδης, Β.Δερμίσσης (2006) «Προβλήματα κατά την Μέτρηση Παραμέτρων Στρωματώδους Ροής στο Εργαστήριο» 10<sup>ο</sup> Πανελλήνιο Συνέδριο της Ελληνικής Υδροτεχνικής Ένωσης (Ε.Υ.Ε.) Ξάνθη.
18. Pechlivanidis G.I., Pechlivanidis I.G., Samaras G.A., Tasoula E., Dermisis V., 2008, ‘*Control of the saline wedge intrusion by using broad-crested orthogonal weir*’, International Conference, presented on the 1<sup>st</sup> International Conference on Fluvial Hydraulics (River Flow 2008), 3-5 September, Cesme-Izmir, Turkey
19. Pechlivanidis G.I., Pechlivanidis I.G., Samaras G.A., Dermisis V., 2009, ‘*Experimental evaluation of the entrainment in stratified flows*’, National Conference, presented on the 11<sup>th</sup> National Conference of Greek Hydro-technical Society, 27-30 May, Volos, Greece
20. Papastergiou F., Pechlivanidis, G.I., Pechlivanidis I.G., Tasoula A., ‘*Chemical parameters as a simple monitoring indicators and environmental water leakage*’, in CEST 2011: Environmental Science and Technology, 8-10 September, Rhodes, Greece (In review)

21. Pechlivanidis G.I., Keramaris E., Pechlivanidis I.G., *'Measuring the turbulent characteristics in an open channel using the PIV method'*, in CEST 2011: Environmental Science and Technology, 8-10 September, Rhodes, Greece (In review)
22. **Pechlivanidis G.**, Keramaris E., Pechlivanidis I., Samaras G., (2012) «Measuring the Vorticity Above Vegetated Bed Using PIV Technique», Proc. of International Conference Protection and Restoration of the Environment XI, (Abstract pag.125), (full paper available in CD-ROM), Thessaloniki, July 2012.
23. **Πεχλιβανίδης Γ.**, Κεραμάρης Ε., Πεχλιβανίδης Η., (2012) «Επίδραση Τυρβωδών Χαρακτηριστικών Ροής Σε Διαπερατό και Αδιαπέρατο Πυθμένα», Πρακτικά 2<sup>ο</sup> Κοινού Συνεδρίου, 12<sup>ο</sup> της Ελληνικής Υδροτεχνικής Ένωσης (Ε.Υ.Ε) και 8<sup>ο</sup> της Ελληνικής Επιτροπής Διαχείρισης Υδάτινων Πόρων (ΕΕΔΥΠ), Πάτρα, σελ. 154-164, Οκτώβριος 2012.
24. Κεραμάρης Ε., **Πεχλιβανίδης Γ.**, (2012) «Σύγχρονες Τεχνικές Μέτρησης Ροής Ρευστών (Μέθοδος Particle Image Velocimetry)», Πρακτικά 8<sup>ο</sup> Πανελληνίου Συνεδρίου «Φαινόμενα Ροής Ρευστών», (Περίληψη σελ.33-34), (η πλήρης εργασία διαθέσιμη σε CD-ROM), Βόλος, Νοέμβριος 2012.
25. Keramaris E., **Pechlivanidis G.**, Pechlivanidis I., Samaras G., (2013) «The Impact of Lateral Walls on the Velocity Profile in an Open Channel using the PIV Method», submitted for review for 13<sup>th</sup> International Conference on Environmental Science and Technology (CEST 2013), September 2013, Athens, Greece.
26. **Pechlivanidis G.**, Keramaris E., Samaras G., (2013) «Estimating of the Shear Stress in Turbulent Boundary Layers in an Open Channel», submitted for review for 1<sup>st</sup> EWAS-MED international Conference, April 2013, Thessaloniki, Greece.
27. Keramaris E., **Pechlivanidis G.**, (2013) «Comparison Between Permeable and Impermeable Bed in Inclined Open Channels», submitted for review for ERCOFTAC Symposium on Unsteady Separation in Fluid-Structure Interaction, June 2013, Mykonos, Greece.

### **Journal publications**

1. Dermissis V., and Pechlivanidis G. (1991) “Coastal aquifers pollution reduction by the saline wedge length control.” 6<sup>th</sup> International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, Como, Italy, Published in Fresenius Envir. Bull. 1, 178-183 (1992).
2. G.Pechlivanidis, Th. Karambas and M. Gousidou (2005). “ A Computational Model and an Operational Tool for the Optimal Forced Marina Flushing .” Journal of Marine Environmental Engineering Vol.

3. **Pechlivanidis G.**, Keramaris E., Pechlivanidis I., Samaras G., (2012) «Measurements of Turbulent Characteristics in an Open Channel Using PIV (Particle Image Velocimetry)», Global NEST Journal, Volume 14 (3), pag. 378-385, September 2012.
4. Keramaris E., **Pechlivanidis G.**, (2013) «PIV Measurements Over a Permeable and an Impermeable Bed», Journal of Porous Media, Volume 16 (1), pag. 21-28, 2013.
5. **Pechlivanidis G.**, Keramaris E., Pechlivanidis I., (2013) «Experimental Study of the Effects of Permeable Bed (Grass Vegetation and Gravel Bed) on the Turbulent Flow Using Particle Image Velocimetry», submitted for review, Journal of Hydraulic Research.

### **Workshop contributions and Invited lectures**

1. Pechlivanidis G.I. and Dermisis, V. (2002) "Blocking submarine sewer outlet from the entrance of seawater", Workshop in Hydraulics and Environmental Engineering, Aristotle University of Thessaloniki, Greece.
2. Dermisis, V. and Pechlivanidis G.I. (2002) "Effects of the entry of seawater in coastal karstic pipeline", Workshop in Hydraulics and Environmental Engineering, Aristotle University of Thessaloniki, Greece.
3. Pechlivanidis G.I. (2010) "Particle Image Velocimetry", Invited lecture by the Department of Civil Infrastructure Engineering, Alexander Technological Educational Institute of Thessaloniki, Greece.

### **Reports**

1. "Problems in the design of wastewater pumping stations" for students of Technological Educational Institute of Thessaloniki.
2. "Hydraulics I", for students of Technological Educational Institute of Thessaloniki.

### **RESEARCH PROJECTS**

1. Archimedes I: "Contribution to detection and measurement of the length of the wedge and the velocity profiles in miscible fluids. Application to saltwater wedge."
2. Program e-Class. Collaboration with Aristotle University of Thessaloniki.
3. Collaboration with Aristotle University of Thessaloniki re projects PENED I and PYTHAGORAS I

### **SUPERVISION**

Prof. Pechlivanidis has supervised several final year dissertations from both the Department of Civil Infrastructure Engineering of the Alexander Technological Educational Institute of Thessaloniki, and the Department of Civil Engineering of the Aristotle University of Thessaloniki. He has also provided significant assistance to PhD students of the Aristotle University working on experimental analysis of hydraulic phenomena.