

Brief Curriculum Vitae
Athanassios Routoulas
Dr Chemical Engineer



I. Personal

Name : Athanassios Routoulas
Place and Date of Birth : Pyrgos Ilias, October 22, 1950
Nationality : Greek
Marital Status : Married, two children
Position : Professor
Working Address : Technological Educational Institute of Piraeus,
Dept of Physics, chemistry and materials technology.
P.Ralli & Thivon 250, 12244 Egaleo Athens, Greece
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II. Studies-Degrees earned

1968- 1973 Degree in Chemical Engineering, National Technical University of Athens.
1989-1990 Post - graduate Degree in Electrical Metrology, Politecnico di Torino, Italy. Thesis titled "Trasduttori e Sensori di Pressione di forza e di grandezze chimiche come elementi di controllo di processi"
1995 -2000 Doctorate in materials science, National Technical University of Athens, Thesis titled «Durability of Concretes with composite Cements ».

III. Languages

French (Very good) ,English(Very good) Italian (Very good)

IV. Career

1976- 1979 AGA- CHROPI S.A. INDUSTRIAL GASES
Sales Technical Support in new industrial applications
1979- 1980 SARELACOS S.A. VEGETABLE OILS REFINERY
Production Manager
1980- 1987 AMELKA LTD INDUSTRIAL AUTOMATION (AGENCIES,
DESIGN, CONSTRUCTIONS)
Pneumatic and Hydraulic Automation Systems Design and
Constructions
1987-Today T.E.I. PIRAEUS, AUTOMATION DEPT, MECHANICAL
ENGINEERING DEPT.
Professor

V. Teaching Experience

1987-Today Industrial Automation, Theory and Practice, T.E.I PIRAEUS,
MECHANICAL ENGINEERING DEPT.

- 1990-Today Hydraulic and Pneumatic automation systems, Theory and Practice, T.E.I PIRAEUS, AUTOMATION DEPT.
- 1987- 1994 Environmental Protection systems, T.E.I PIRAEUS, AUTOMATION DEPT and MECHANICAL ENGINEERING DEPT.
- 1996-Today Physical-chemical process & Modeling .TE.I PIRAEUS, AUTOMATION DEPT.

VI. Books

1. A.T.Routoulas." Durability of Concretes with Composite Cements". PhD Thesis. Chemical Engineering Department, National Technical University of Athens,2000, ATHENS.
2. A.T. Routoulas. "Trasduttori e Sensori di Pressione di forza e di grandezze chimiche come elementi di controllo di processi. Sensori per applicazioni Automobilistiche". Politecnico Di Torino, Istituto Elettrotecnico Nazionale , 1988,TORINO, ITALY.
3. A.T.Routoulas, L. Gerolympas, G. Papaioannou." Storage and Distribution networks of Gases for Medical Use", Technical Chamber of Greece, TOTEE 2491/86, 1986, ATHENS.
4. A.T.Routoulas." Hydraulic - Pneumatic Automation Systems, applications ", ATHENS, 2009.
5. A.T.Routoulas." Industrial Automation" , TEI OF PIRAEUS 1988.
6. A.T.Routoulas." Environmental Protection Systems", TEI OF PIRAEUS 1990.
7. A.T.Routoulas." Physical-Chemical Process", TEI OF PIRAEUS 1996.

VII. **Areas of research interests**

- a. Corrosion measurements and Protection
- b. Pneumatic Control
- c. Systems Design

VIII. **Publications List**

- a. Articles in international scientific journals

1. **Routoulas, A.**, Pantazopoulou, P., Batis, G., "Evaluation Of Parameters Influencing Reinforcement Corrosion By Strain Gauge Technique", Anti-Corrosion Methods and Materials 50, No 4, 2003, p.p. 271-280.

2. Batis, G., Pantazopoulou, P., **Routoulas, A.**, "Corrosion Protection of Reinforcement by Inorganic Coating in the Presence of Alkanolamine-Based Inhibitor", Cement and Concrete Composites, 25, No 3, 2003, p.p. 371-377.
3. Batis, G., **Routoulas, A.**, Rakanta, E., "Effects of Migrating Corrosion Inhibitors on Reinforced Concrete Covered with Repair Mortar", Cement and Concrete Composites, 25, No 1, 2003, p.p. 109-115.
4. Batis, G., Pantazopoulou, P., **Routoulas, A.**, "Synergistic effect of corrosion inhibitor and inorganic coating on reinforcement corrosion", Anti-Corrosion Methods and Materials, 48, No 2, 2001, p.p. 107-115.
5. Batis, G., **Routoulas, A.** "Steel Rebars Corrosion Investigation with Strain Gauges", Cement and Concrete Composites, 21, No 3, 1999, p.p. 163-171.
6. **Routoulas, A.**, Batis, G. "Performance Evaluation of Steel Rebars Corrosion Inhibitors with Strain Gauges", Anti-Corrosion Methods and Materials, 46, No 4, 1999, p.p. 276-283.

b. Articles in Greek refereed scientific journals

1. G.Batis, P.Pantazopoulou, E.Rakanta, **A.Routoulas**. "Control techniques on the efficiency of corrosion inhibitors in reinforced concrete" Bulletin of the Greek Society of Civil Engineers, No.285-286, April-May 2001, 54-56, 56-58.
2. **A.Routoulas**, G.Batis. "Investigation of the influence of Cement Kiln Dust on concrete reinforcement protection by composite cements", Scientific yearbook on Applied Research of the Technological Educational Institute of Piraeus, Volume V, No.1, 2000, p.p. 135-149.
3. G.Batis, **A.Routoulas**, E.Fountoukidis. "Reinforcement corrosion investigation in fiber mortars specimens by the Strain Gauge Technique", Scientific yearbook on Applied Research of the Technological Educational Institute of Piraeus, Volume V, No.1, 2000, p.p. 307-313.

c. presentations at International Conferences

1. **A.Routoulas**, G.Batis, P.Pantazopoulou, "Optimization of fly ash and porfiritis waste combination in concrete durability" International Scientific Conference e R A4 Spetses , Greece 24-26 September 2009
2. **A.Routoulas**, S.Kalogeropoulou, P.Pantazopoulou, P.Koulouris, "Investigation Of Ckd – Bfs In Reinforcement Corrosion Protection", 16th European Conference of Fracture, Measuring, Monitoring and Modeling Concrete Properties, Alexandroupolis, 3-7 July 2006. "Measuring, Monitoring and Modeling Concrete Properties", Ed. Maria S.Konsta-Gdoutos, Springer, Dordrecht the Netherlands, σελ. 591-596.
3. **A.Routoulas**, P.Pantazopoulou, A.Marousaki, "Reinforced concrete durability control by electrochemical methods" 1st International Scientific Conference e R A Tripolis Peloponnese, Greece 16-17 September 2006
4. **Routoulas**, G. Batis, K. Sideris, P.Koulouris, «Investigation of Kiln Dust B.F. Slag and Corrosion Inhibitors Influence in Concrete Durability» 6th International Congress, Global Construction: Ultimate Concrete Opportunities" Dundee, U.K., 5-7 July 2005
5. **Routoulas, A** , D.Tseles, G.Batis, P.Pantazopoulou, E.Rakanta, «Influence Of Cement Kiln Dust, B.F.S. And Corrosion Inhibitors In Reinforcement Corrosion Protection»2nd International Scientific Conference on Information Technology and Quality, Spetses, 4 – 5 June 2005.
6. Batis, G., **Routoulas, A.**, Pantazopoulou, P., «Reinforcement Corrosion Studies by the Strain Gauge Technique» EUROCORR 2004, Nice – FRANCE, 12-16 September 2004.
7. **Routoulas**, G. Batis, «Quality Investigation of Fibre Reinforced Materials in Concrete Constructions Exposed to Special Environment» 1st International Scientific Conference on Information Technology and Quality,Athens,5 – 6 June 2004
8. Batis, G., **Routoulas, A.**, Pantazopoulou, P., "Concurrent Action of Corrosion Inhibitors and Silicate Coating in Cases of Concrete Repair",1st International Conference on Concrete Repair, St- Malo, France, 15-17 July 2003, p.p. 519-525.
9. Batis, G., Pantazopoulou, P., **Routoulas, A.**, "Investigation of the protective effect of inorganic coating with corrosion inhibitors against deterioration of structural damages", Eighth International Conference on Structural Studies, Repairs and Maintenance of Heritage Architecture ,Halkidiki, Greece, 7-9 May 2003, p.p. 183-192.
10. G. Batis, **A. Routoulas**, M. S. Konsta-Gdoutos, "Behavior Investigation of FRP Bars in Mortar Specimens Exposed to Extreme Conditions", International Congress "Challenges of Concrete Construction", Vol. Composite Materials in Concrete Construction, Dundee, U.K., 2002, p.p. 313-322.

11. Batis, G., Rakanta, E., **Routoulas, A.**, "Investigation of the protective effect of repair mortars with migrating corrosion inhibitor in deterioration of structural damage", Seventh International Conference on Structural Studies, Repairs and Maintenance of Historical Buildings, Bologna, Italy, 28-30 May 2001, p.p. 497-506.
12. Batis, G., **Routoulas, A.**, Maeder, U., "Performance of Corrosion Inhibitors in the Protection of Reinforced Concrete in Seaside Environment". Proceedings of the International Corrosion Congress, Cape Town, South Africa, September 28-October 1, 1999.
13. Batis, G., **Routoulas, A.**, "Data Analysis of Strain Gauges Detecting Steel Rebars Corrosion". Proceedings of the International Congress "Creating with Concrete", University of Dundee, Dundee, 6-10 Sept. 1999, Volume 11, p.p. 563-572.
14. Batis, G., **Routoulas, A.**, Meletiou, C.A., "Kiln Dust Influence in Corrosion Protection in Steel Rebars in Mortars with Composite Cement Containing Pozzolans". Proceedings of the International Conference on Infrastructure Regeneration and Rehabilitation Improving the Quality of Life through Better Construction, University of Sheffield, Sheffield, 28 June-2 July, 1999, p.p. 581-590.

d. presentations at National Conferences

1. G.Batis, **A.Routoulas**, P.Pantazopoulou, "Optimization of fly ash and porfiritis waste combination in concrete durability" 16th^o Concrete Congress, Paphos, Cyprus , 21-23/10 /2009
2. **A.Routoulas**, G.Batis, P.Pantazopoulou
"Concrete durability investigation using cement industry by-products slag and corrosion inhibitors"
1st National Congress on Structural Materials and Elements, Athens Greece, 21-23/5/2008, 3rd Vol., 1499-1510, E6301.pdf
3. **A.Routoulas**, G.Batis, P.Pantazopoulou,
"Investigation via electrochemical measurements of structural steel protection in the presence of additives and corrosion inhibitors"
6th National Scientific Congress on Chemical Engineering, Athens Greece, 31/5-2/6/2007, 1st Vol., 261-264.
4. **A.Routoulas**, P.Pantazopoulou,
"Concrete durability investigation using cement industry by-products slag and corrosion inhibitors"
Conference "ARCHIMEDES II", Athens Greece, 29-11-2007
5. **A.Routoulas**, G.Batis, P.Manita, A.Marousaki
"Influence of mineral additives and corrosion inhibitors in the anticorrosive protection of concrete reinforcement"
15th Concrete Congress, Alexandroupolis Greece, 25-27/10/2006, 3rd Vol., 576-584, 226.pdf.

6. G.Batis, **A.Routoulas**, F.Fotopoulos, K.Mendrea
“Investigation of concrete reinforcement protection in the presence of additives and corrosion inhibitors”
2nd National Congress on Metallic Materials, Athens Greece, 25-26/11/2004, 529-536.
7. G.Batis, **A.Routoulas**, P.Pantazopoulou,
“Investigation of the Strain Gauge Technique application limits for reinforced concrete corrosion measurements”
14th Concrete Congress, Kos Greece, 15-17/10/2003, 3rd Vol., 42-53.
8. G.Batis, E.Rakanta, **A.Routoulas**, D.Rosignioli
“Reinforced concrete repairing by mortars with corrosion inhibitors”
14th Concrete Congress, Kos Greece, 15-17/10/2003, 2nd Vol., 101-111.
9. G.Batis, P.Pantazopoulou, **A.Routoulas**
“Synergistic action of corrosion inhibitors and silicate coating in reinforced concrete constructions restorations”
4th National Scientific Congress on Chemical Engineering, Patras Greece, 29-31/5/2003, 145-148.
10. G.Batis, E.Rakanta, E.Kytinos, **A.Routoulas**, E.Fountoukidis
“Corrosion investigation of reinforcing steel s500s in mortar specimens”
1st National Congress on Metallic Materials, Volos Greece, 29-30/11/2001, 241-256.
11. G.Batis, P.Pantazopoulou, E.Rakanta, **A.Routoulas**
“Concrete reinforcement protection by corrosion inhibitors”
3rd National Scientific Congress on Chemical Engineering, Athens Greece, 31/5-2/6/2001, 405-408.
12. G.Batis, **A.Routoulas**
“Behavior Investigation of FRP Bars in Mortar Specimens under extreme conditions”
1st Greek Congress on Composite Concrete Materials, Xanthi Greece, 9-10/11/2000, 239-248.
13. G.Batis, **A.Routoulas**, P.Pantazopoulou
“Reinforcement corrosion investigation in fiber mortar specimens with the Strain Gauge Technique”
1st Greek Congress on Composite Concrete Materials, Xanthi Greece, 9-10/11/2000, 249-256.
14. G.Batis, **A.Routoulas**
“Investigation of corrosion inhibitors effectiveness by the Strain Gauge Technique”
2nd National Scientific Congress on Chemical Engineering, Thessaloniki Greece, 27-29/5/1999, 891-894.
15. G.Batis, K.Meletiou, **A.Routoulas**
“Concrete reinforcement protection by mineral additives”

13th Concrete Congress, Rethymnon Greece, 25-27/10/1999, 2nd Vol., 345-352.

16. G. Batis, A. Routoulas

“Corrosion inhibitors effectiveness in reinforced concrete constructions protection in marine environment”

Archipelagos Technologies Congress, Piraeus Greece, 22-24/10/1997, 190-201.

17. Batzias, D Sidiras, **A Routoulas**, "Simulation and optimization of an Organic Wastewater Digester for Use in an Island Community Situations", Archipelagos Technologies Congress, Piraeus Greece, 22-24/10/1997, 209-214.

18. A. Routoulas

“Development of a system of control type selection for pneumatic automation systems”

Technology and Automation Congress, Piraeus Greece, 9-10/5/1996, 438-442.

IX. Participation in Research Projects

1. Participation as supervisor in the research project entitled “Investigation of Concrete Durability with the use of Cement industrial byproducts B.F. Slag and Corrosion Inhibitors” .

Duration: 32 months (1 / 2004 -8/2006).

Archimedes research program, funded by the European Community and the Greek Ministry of Education.

2. Participation as supervisor in the project entitled “Enterprising Programs in Piraeus and Kalamata Technological Educational Institutes” . Entrepreneurship Development Program.

Duration: 24 months (3 / 2003 - 2 / 2005).

EPEAEK research program, funded by the European Community and the Greek Ministry of Education.

3. Participation as supervisor in the project entitled “Investigation of the application limits of Strain Gauges technique and technical improvement for concrete reinforcement corrosion measurements”.

Duration: 9 months (3 / 2001 -12/2001).

Funding: Special Research Account of TEI Piraeus.

4. Participation as supervisor in the project entitled “Internal nonstick coating of cookware suitable for food contact”.

Duration: 19 months (3 / 1999 - 9 / 2000).

Funding: General Secretariat of Research and Technology of Greece.

5. Participation as supervisor in the project entitled “computer aided optimal determination and automatic control of condensation rates, mixing and rate of sludge deposition from wastewater treatment.

Duration: 12 months (6 / 1994 - 6 / 1995).

Funding: SPECIAL Research ACCOUNT TEI Piraeus.

X. Citations

About 50 citations in international journals.

XI. Scientific Associations

- Member of the Technical Chamber of Greece
- Member of the Hellenic Concrete committee of TCG
- Member of the Greek Scientific Concrete Research committee