

Autorul tezei de abilitare: Prof. dr. ing. Aurel Fratu

**Titlul tezei de abilitare: SERVOSISTEME PENTRU CONTROLUL
MISCARII IN TEHNICA ROBOTILOR**

Domeniul: Inginerie electrica

LISTA DE LUCRĂRI

LUCRĂRI RELEVANTE

1. (2009) **Fratu A.**, Sisak F., Vermeiren L., Dequidt A.: Modelling and robot simulation in Delphi environment. *18th International Workshop on Robotics in Alpe-Adria-Danube Region*, ISBN 978 -606-521-315-9, Brasov, Romania, May 25-27, 2009.
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9. (2014) J.P. Becar, M. Fratu, **A. Fratu**, J.C. Canonne: *Example based learning for virtual prototyping engineering*, Edulearn14 Proceedings of the 6th International Conference on Education and New Learning Technologies, ISBN: 978-84-617-0557-3, ISSN: 2340-1117, 7-9 July, 2014, Barcelona, Spain, pp. 6027-6034
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TEZA DE DOCTORAT

**CERCETARI PRIVIND SISTEMULDEPOZITIONARE CU SERVOMOTOR SINCRON
SIMICROCALCULATORPENTRU ROBOTI INDUSTRIALI**

BREVETE

1. Nicolaide, A., **Fratu, A.**: Method and installation to experimental determination of the losses by eddy currents, Patent Number(s): RO129909 (A0)
2. **Fratu, A.**: Method and installation for programming the motion paths of robotic arm articulations, Patent Number(s): RO – 129121(A0).
3. **Fratu, A.**, Fratu, M.: Method for Detecting Petroleum Fluid Leaks from Cracked Underground Metal Pipes, Patent Number(s): RO - 125179 (A2).
4. **Fratu, A.**: Control method for the electric inverters and inverter according to the method. Patent Number(s): RO112454 (B)
5. **Fratu, A.**: Oil dipper rod with electric signaling. Patent Number(s): RO97147 (B1)
6. **Fratu, A.**: Method and system for adjusting speed of direct current motors. Patent Number(s): RO97567 (B1)
7. **Fratu, A.** et al: Method and system for adjusting speed of the electric induction motors, Patent Number(s): RO 73734.
8. **Fratu, A.**: Device for automatically stopping the electric induction motors upon no-load running. Patent Number(s): RO96926 (A2)
9. **Fratu, A.**: One-way coupling. Patent Number(s): RO96273 (B1)
10. **Fratu, A.** et al: Systeme electrique de saisir du niveau d'huile. Patent Number(s): RO66668 (A2)
11. Saal C., **Fratu, A.** et al: Electromagnetic linear synchronous oscillomotor. Patent Number(s): RO98403 (B1)
12. Saal, C., **Fratu, A.** et al: Methode et installation pour la modification de la vitesse des machines asynchrones triphases planes. Patent Number(s): RO79433 (A2)
13. Saal, C., **Fratu, A.** et al: Methode et installation pour le fonctionnement en regime pas-a-pas avec pas angulaire constant du moteur asynchrone triphase. Patent Number(s): RO90590 (A2)
14. Saal, C., **Fratu, A.** et al: Methode dispositif pour l'obtention des frequences d'oscillation diminuees aux oscillateurs electriques synchrones lineaires. Patent Number(s): RO77841 (A2)
15. Baltac, M., **Fratu, A.** et al: Level indicator, with electric resistance. Patent Number(s): RO108087 (B1)
16. Popa, A. , **Fratu, A.** et al: Machine for smoothing wooden elements with profiled surfaces. Patent Number(s): RO93403 (A2)
17. Baltac, M., **Fratu, A.** et al: Relais de pression. Patent Number(s): RO76926 (A2)
18. Baltac, M., **Fratu, A.** et al: Machine pneumatique a visser et a devisser. Patent Number(s): RO76530 (A2)
19. Baltac, M., **Fratu, A.** et al: Alternative pneumatic motor. Patent Number(s): RO67876
20. Meiu, G., **Fratu, A.** et al: Installation for directing galvanizing manipulators. Patent Number(s): RO96125 (B1)
21. Ilie, Al., **Fratu, A.** et al: Installation for modifying speed of an electric shaft actuated by asynchronous machines. Patent Number(s): RO92205 (B1)
22. Ilie, Al., **Fratu, A.** et al: Installation for modifying the displacement speed of rolling girders by using linear asynchronous machines. Patent Number(s): RO92027 (A2)

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