



AVL AST UNIVERSITY PARTNERSHIP PROGRAM

Feedback / Deliverables



AVL BOOST



AVL CRUISE



AVL EXCITE



AVL FIRE

Level 3 - Platinum Partnership Deliverables (minimum 3 options)

Mentioning AVL AST software usage in annual institute report

AVL AST software products are mentioned in the annual report of our research center. Direct links from the Mechanical Faculty and Research Center for Thermal Equipment web sites contain presentations of the AVL AST products:

- 1 <http://www.mecanica.pub.ro/>,
- 2 <http://caz.mecen.pub.ro/centru.html> ... (Softuri specializate)

Papers on conferences / in journals acknowledging the use of AVL AST software

1. On the possibility to assess by simulation performance and efficiency parameters of a SI engine operating in different conditions:

Authors A-L Niculae, R. Chiriac,

Published in: U.P.B. Sci. Bull, Series D, vol. 81, Iss. 4, 2019, ISSN 1454-2358 , pp 47-58

2. The operation of a direct injection spark ignition engine fueled with gasoline-hydrogen mixtures in dual-fuel mode.

Authors R Mazeh, R. Chiriac,

Published in: TMREES19 AIP Conference Proceedings vol. 2123 Article no. 020027, 2019, ISSN 0094-243X , Accession Number WOS: 000506357800027

3. On the possibility to simulate the operation of a SI engine using alternative gaseous fuels.

Authors A-L Niculae, L. Miron, R. Chiriac,

Published in: Tmrees EURACA, 04-06 Sept 2019 Athens Greece, Energy Reports, Vol. 6 Supplement 3, 2020, pp 167-176

Offering courses / seminars for industry including AVL AST members to present



Our department offers courses for students in the final (IV year undergraduate) for diploma thesis graduation, for students in the first year of the Master SET program – “Modelarea Proceselor din Cilindrii Motoarelor cu Ardere Interna” and for students following PhD study program.

We are working with AVL BOOST started with EXCITE for the undergraduate students in the third and in the fourth year. For the students following the Master SET program we started to use FIRE and we will try to introduce CRUISE if it will be demand on these packages because the program is still under reorganizing procedures.

In 2019, 6 diploma theses containing simulation chapters using AVL AST software have been finalized; 1 Master theses and 1 PhD theses which in progress.

1. Studiul asupra posibilitatilor de utilizare a combustibililor de tip bioetanol E15 intr-un motor cu aprindere prin scanteie de 70 kW la 5800 rpm – Diploma thesis author std. Rares CONTIU
2. Studiul influenteti modificarii fazelor de distributie asupra performantelor si emisiilor poluante ale unui motor diesel naval – Diploma thesis author std. Silvia DUTU
3. Studiul posibilitatilor de adaptare a unui motor cu aprindere prin scanteie de 125 kW la 5800 rpm la alimentarea cu gaz natural comprimat,– Diploma thesis author: std. Catalin BIRSAN
4. Study on the influence of the biodiesel properties on combustion in a tractor diesel engine – Diploma thesis author: std. George Catalin POPA
5. Study on the influence of the intake system geometry on a passenger car spark ignition engine performance, efficiency and emissions – Diploma thesis author: std. Bogdan Adrian POPA
6. Adaptation du groupe suralimentation sur un moteur diesel tracteur et l’etude du melange air-carburant – Diploma thesis author: std. Mohamed ARFAOUI
7. Studiul influentelor proprietatilor biocombustibililor alternativi de tip biodiesel asupra performantelor motorului cu aprindere prin comprimare – Master thesis author: std. Lucian MIRON

Collaboration in R&D projects

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Providing R&D results obtained with or to be built in AVL AST software

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Internet link to AVL web-site

All the undergraduate students (III and IV year) from Internal combustion engines specialization, Mechanical Faculty and Mechanical engineering specialization, Faculty of Engineering in Foreign Languages or postgraduate from Master SET program and PhD program have access to the AVL web site to improving their knowledge in AVL AST products

Your feedback on major strengths and suggestions for improvements of AVL AST software

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20 March 2020

Prof.dr.ing. R. Chiriac