

COMPETITION THEME FOR THE POSITION OF ASSOCIATE PROFESSOR POZ. 26

THEMES DISCIPLINE:

„ADVANCED MULTIMODAL TRANSPORT SYSTEMS”

1. Background on the development of intelligent transport systems. The concept of intelligent transport systems. The concept of multimodality. Strategies and policies on intelligent transport systems
2. Transport system specific information system. The conduct of commercial commodity transactions. Stages of the commercial transaction.
3. Classification and coding systems for products. Unique product code. European code of articles. Standardisation and its role in the production and marketing of goods
4. Techniques and methods used in the implementation of modern multimodal transport systems. Approaches to complex systems. Transport demand management.
5. Techniques and methods used in the implementation of modern multimodal transport systems. Electronic route monitoring. Automatic vehicle location. Journey counting. Emergency management. Dispatching/monitoring. Creation of integrated IT systems in the transport system. Models used in transport route optimisation.
6. Integrated information system in multimodal freight transport. The design of the integrated information system in multimodal freight transport.
7. Architecture design of the integrated information system in multimodal transport. Customer-oriented approach. Functional planning of the integrated information system in multimodal freight transport. Planning the integrated IT system in multimodal freight transport.
8. Logical planning of data collections. Communication planning of the integrated information system in multimodal freight transport. Implementation of the integrated information system in multimodal freight transport. Strategies for the implementation of the integrated information system in multimodal freight transport. Choice of technical solution.
9. Structure and composition of integrated software products in multimodal freight transport.

THEMES DISCIPLINE:

„MANUFACTURE AND REPAIR OF TRANSPORT VEHICLES”- I

1. General notions about production processes
2. Determination of the elements necessary to draw up technological processes
3. Semi-finished products for motor vehicles
4. Calculation of machining accuracy
5. Surface quality of automotive parts
6. Bases, dimensions and working devices
7. Methods and procedures for the reconditioning of motor vehicle parts
8. Manufacturing technologies for shaft parts
9. Technologies for the manufacture of bushings

THEMES DISCIPLINE:

„MULTIMODAL TRANSPORT”

1. The concept of multimodal transport. International organisations governing single and multimodal transport. International conventions on multimodal transport. Classification and examples of multimodal transport.
2. Knowledge of the specific aspects of the main modes of transport: Road transport. Rail transport. Maritime transport. Air transport. Technical and economic indicators of transport subsystems
3. Palletizing-containerization-transcontainerization system design. Packaging. Palletization. Containerisation

4. Principles of correlation of modern transport types. Containerisation transport units. Development of containerised and transcontainerised transport. Container types and dimensional and gauge parameters. Transcontainers. Non-ISO transcontainers
5. Devices and equipment for placing and removing goods in/out of containers. Stacking, organisation and devices for securing goods in containers
6. Transport technologies. Preparation of goods to simplify loading, transshipment, unloading operations.
7. Devices for transporting/handling goods in a container terminal. Means for transporting containers
8. International palletizing-containerization system. Main problems of international container traffic. International movement of containers

THEMES DISCIPLINE:

„AUTOMOTIVE MANUFACTURING AND ASSEMBLY TECHNOLOGIES”- II

1. Piston manufacturing technologies
2. Segment manufacturing technologies
3. Rod manufacturing technologies
4. Engine block manufacturing and remanufacturing technologies
5. Technologies for the manufacture and reconditioning of the engine cylinder head

BIBLIOGRAPHY

„ADVANCED MULTIMODAL TRANSPORT SYSTEMS”

1. Budica I., Popescu A. – Transporturi interne și internaționale, Editura Universitaria Craiova, 2006
2. Chițescu Șt. – Organizarea transporturilor auto, Editura Tehnică, București, Ed. II; 1980
3. Dobrotă S. – Transporturi rutiere internaționale, Ed. Transportul rutier, București, 1994
4. Georgescu C. – Tehnologii moderne de transport, Ed. Tehnică, București, 1974
5. Raicu S., Mașala Gh. – Transportul feroviar, Editura Științifică și Enciclopedică, București, 1991

„MANUFACTURE AND REPAIR OF TRANSPORT VEHICLES”- I

1. Banu, I., Anghel, D. - Tehnologia fabricării mașinilor, Ed. Universității din Pitești, 2000
2. Crivac, Gh., ș.a. - Tehnologii de fabricare a autovehiculelor. Ed. Universității din Pitești, 2002.
3. Filip, N., Turea, N. - Fabricarea automobilelor și control dimensional, Editura Universității "Transilvania" Brașov, 2000
4. Maricaș, D., Abaitancei, D. - Fabricarea și repararea industrială a autovehiculelor rutiere, Editura Didactică și Pedagogică, București 1982
5. Nicolae, V., Crivac, Gh., Ilie, S. - Fabricarea și repararea industrială a autovehiculelor, Editura. Universității din Pitești, 2001
6. Picoș, C. ș.a. - Calculul adaosurilor de prelucrare și al regimurilor de așchiere. Editura Tehnică, București, 1974
7. Picoș, C. ș.a. - Îndrumar de proiect. Tehnologia construcției de mașini. Editura Institutul Politehnic din Iași, 1969

„MULTIMODAL TRANSPORT”

1. Budică I. - Managementul transporturilor, Editura Universitaria Craiova, 2007
2. Dinu Sorin Viorel - Transporturile rutiere, Editura Transport rutier, Bucuresti, 2000
3. Ivănescu D., Dinu Gh. - Transporturile rutiere naționale și internaționale. Reglementări actualizate, Editura Transport rutier, Bucuresti, 2000
4. Lungu D. - Manualul managerului de transport rutier, Editura Transporturi Rutiere Bucuresti 2003

5. Manea A., Manea L. - Autovehicule de transport rutier în zona portuară, Editura Matrix București, 2004
6. Raicu S. - Sisteme de transport, Editura Agir, București. 2007

„AUTOMOTIVE MANUFACTURING AND ASSEMBLY TECHNOLOGIES”- II

1. Abăitancei, D. ș.a. - Fabricarea și repararea autovehiculelor. Îndrumar de laborator, Universitatea din Brașov, 1988
2. Banu, I., Anghel, D. - Tehnologia fabricării mașinilor, Editura Universității din Pitești, 2000
3. Chiru, A., Marinceaș, D - Tehnologii speciale de fabricare și reparare a autovehiculelor, Editura Universității "Transilvania" Brașov, 1991
4. Ciocârdia, C. și Zgură, G - Tehnologia prelucrării carcaselor, Editura Tehnică, București, 1975
5. Crivac, Gh., ș.a. - Tehnologii de fabricare a autovehiculelor, Editura Universității din Pitești, 2002
6. Filip, N., Turea, N. -Fabricarea automobilelor și control dimensional, Editura Universității "Transilvania" Brașov, 2000
7. Nicolae, V., Crivac, Gh., Ilie, S. - Fabricarea și repararea industrială a autovehiculelor, Editura Universității din Pitești, 2001