



SPLIT SUMMER SCHOOL STSS2018

COURSE: SOLVING LINEAR PROGRAMMING PROBLEMS USING SOLVER

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<http://www.unist.hr/international-split-summer-school-2018/courses>

Main topics:

- introduction to the basic of linear programming
- introduction to the simplex algorithm
- solving standard minimum/maximum LP problem given both in the mathematical and text form using MS Excel Solver
- solver's reports and the post-optimal analysis
- introduction to the transport, transshipment and assignment problems

Programme structure:

- 5 day course
- basic theory and practical samples will be provided
- every student gets lecture notes bound into a booklet, as well as a USB containing a digital version of the booklet and practical samples workbooks

Important dates:

Course dates: 03/09/2018 – 07/09/2018
Deadline for application: 01/07/2018
Payment due by: 10/07/2018
Confirmation of the course: 20/07/2018

Price of the course: 300 € (tax included)

Bed & breakfast: 6 nights - 1.422,00 HRK (approximately 190 EUR) (tax included) – contact person: Marina Kero, email: marina.kero@scst.hr

Programme plan:

Day 1

- Introduction to linear programming. Basic terms. Standard minimization/maximization problem.
- Fundamental theorem and graphical solution of LP. Canonical form of the standard LP's problems. Simplex algorithm.
- Revising knowledge from MS Excel with examples

Day 2

- Solving the standard minimum and maximum problem using the simplex method
- MS Excel's add-in Solver: activation and introduction to Solver template. Solving LP's mathematically given samples.

Day 3

- Solving LP's text-based samples: diet problem, product mix problem, investment problem and advertising problem
- Post-optimal analysis of the solution obtained. Solver's reports

Day 4

- Solving samples with post-optimal analysis

Programme lecturer:

Bože Plazibat, PhD
College Professor at the University of Split, University Department of Professional Studies, Assistant to the Head of the Department, Split, Croatia

Lada Reić

Professional Associate, University of Split, University Department of Professional Studies, Head of IT Office, Split, Croatia

- Detection of multiple optimum from Solver's reports
- Transport and transshipment problem
- Solving transport problem samples

Day 5

- Solving transshipment problem samples
- Assignment problem
- Solving assignment problem samples
- Final exam