

Railway Applications Section

2011 - RAS Problem Solving Competition

Announcing RAS 2011 Problem Solving Competition

Finalists

The judging panel has given their verdict. The three finalists presenting (and competing) at Charlotte are the following teams (in alphabetical order):

Koppa
NCKU
OR@UNIMI

Congratulations!

Special Mention:

RAIL-OPT

The judging panel praised work from team RAIL-OPT and has awarded “special mention”. They will receive certificate at the INFORMS annual meeting.

Congratulations!

Click [here](http://www.informs.org/Community/RAS/Problem-Solving-Competition) (<http://www.informs.org/Community/RAS/Problem-Solving-Competition>) for eligibility criteria, [here](http://www.informs.org/Community/RAS/Problem-Solving-Competition/2011-RAS-Problem-Solving-Competition/FAQ2011Competition) (<http://www.informs.org/Community/RAS/Problem-Solving-Competition/2011-RAS-Problem-Solving-Competition/FAQ2011Competition>) for FAQ updated regularly.

Train Design Optimization



2011 Problem Description

Data Files (<http://www.informs.org/content/download/217785/2098665/file/DataFiles.zip>)

Important Dates

June 15 - Last date to register

August 15 - Last date to submit a clarification question

September 1 - Final written problem solution submitted

October 1 - Finalists selected by judging panel

November 13 - Finalist Presentation and winner announced

Registration

Teams of up to 3 members can participate. Every team must register. To register, please send following information to

RASProblemSolvingCompetition@gmail.com

Team Name –

For each team member, provide the following:

Member Name, Email, Organization, Position

New to Railroad (Y/N)

New to Operations Research (Y/N)

Brief statement describing what motivated you to participate.

You will receive an email confirming your team's successful registration and eligibility.

Prizes and Sponsors

First Prize: \$2500

Second Prize: \$1500

Third Prize: \$1000

Each team will also receive a certificate.

Thanks to our sponsors for support:

1. BNSF Railway Company
2. CSX Transportation
3. Gurobi Optimization
4. Norfolk Southern Corp.
5. Union Pacific Railroad



Questions and Answers

If you have any questions about the competition problem, submit your question to RASProblemSolvingCompetition@gmail.com. In fairness to all participants, RAS will publish a Q&A on website. All participants will receive Q&A document through email as well. If there are any more questions, similar process will be repeated. No questions will be entertained after **August 15, 2011**.

Submissions

E-mail all files described to RASProblemSolvingCompetition@gmail.com specify your team's name in the e-mail's subject. Attach only three files: (i) the report, (ii) the spreadsheet with the solution and (iii) a zip file (.zip) containing all supporting files. The name of the file for the report and the spreadsheet must match the group's name

Judging Criteria

All participating teams must submit the following by the due date.

1. A report not exceeding 10 pages (including

cover page), normal margins, double spacing, font size of 10. The report must include title page describing the team members, their affiliations, clean and concise description of problem formulation, solution method, and implementation details (Software/Hardware) and results.

2. Problem solution in the RAS spreadsheet (Problem.xls). Make sure you provide the solution in the prescribed format.
3. Computer program/model.

The judging panel will select up to three finalists based on the following criteria:

1. Solution Quality
2. Solution Time
3. Quality of report
4. Novelty and elegance of the formulation and solution approach
5. Scalability

The finalists will make a presentation at the Informs Annual Meeting in Charlotte. Aside from the previous factors, the Judging Panel will take into consideration the clarity of the presentation to make a final decision about the first, second and third places for the competition. Finally, being among the finalists and presenting at the Annual Meeting does not guarantee first/second or third place.

Winners

Announcing RAS 2011 Problem Solving Competition

Finalists

The judging panel has given their verdict. The three finalists presenting (and competing) at Charlotte are the following teams (in alphabetical order):

Koppa
NCKU
OR@UNIMI

Congratulations!

Special Mention:

RAIL-OPT

The judging panel praised work from team RAIL-OPT and has awarded "special mention". They will receive certificate at the INFORMS annual meeting.

Congratulations!

2011 Organizing Committee

Homarjun Agrahari (BNSF Railway)
Juan Morales (BNSF Railway)
Kamalesh Somani (CSX Corporation)

Shankara Kuppa (Union Pacific Railroad)

Carl VanDyke (Oliver Wyman)

Erick Wikum (IBM)

Vinay Mendiratta (Norfolk Southern Corporation)

Yanfeng Ouyang (University of Illinois at Urbana -
Champaign)

The organizing committee would like to thank
following individuals for their support and effort in
problem ownership.

Clark Cheng (Norfolk Southern Corporation)

Jagadish Jampani (CSX Transportation)

Krishna Jha (Innovative Scheduling Inc.)