

EXAM RULES

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E SISTEMISTICA "A. RUBERTI"

MIDLAB MIDDLEWARE LABORATORY

EXAM RULES

- You are asked to write a paper and present it !
- You can work alone or with one colleague
- The final rank will be given by:
 - 70% paper
 - 30% presentation

EXAM RULES

- Three paper types
 - Survey: thoroughly explore some specific aspects within an area
 - Practical evaluation: choose an existing solution to a problem and experimentally evaluate it to discover its strengths and weaknesses
 - Original solution: identify an open research problem and propose a novel idea that improve the current state of the art (this is more difficult !)

EXAM RULES

- Survey
 - Consider a specific research area or problem
 - Read all the current state of the art that correctly applies
 - Organize the SotA in order to provide to the reader
 - an organized taxonomy
 - a critical review
 - a different point of view

EXAM RULES

- Survey examples:
 - Stefan Axelson. “Intrusion Detection Systems: A Survey and Taxonomy”. Chalmers University of Technology, Sweden, 2000.
 - Guido Urdaneta, Guillaume Pierre, and Maarten Van Steen. 2011. A survey of DHT security techniques. ACM Comput. Surv. 43, 2, Article 8, 2011.
 - Xavier Défago, André Schiper, Péter Urbán: Total order broadcast and multicast algorithms: Taxonomy and survey. ACM Comput. Surv. 36(4): 372-421 (2004)

EXAM RULES

- Protocol evaluation
 - Consider an existing protocol or tool
 - Implement it within a simulation environment
 - Define a suitable testing environment
 - Define meaningful metrics
 - Define an extensive set of tests
 - Perform the experiments and report the results

EXAM RULES

- Protocol evaluation
 - Simulation environment
 - Existing simulators: Peersim, NS-2, Omnet++, etc.
 - Home-made ad-hoc simulator

EXAM RULES

- Protocol evaluation
 - Paper organization
 - Introduction
 - Background (explain how the protocol works and what are its expected performance)
 - Description of the simulation setup (simulator, environment, metrics, workloads)
 - Experiment reports (graphs with explanation of the test and comments on the results)
 - Conclusions

EXAM RULES

- Practical aspects:
 - Expected contributions between 8 and 10 pages
- Schedule:
 - Send me title + abstract + authors
 - You are expected to provide a first version for revision at least 15 days before the presentation date
 - I will provide a list of comments and expected changes that you are asked to implement for the final version
 - Send the final version at least 4 days before the presentation date

EXAM RULES

- Don't underestimate the required amount of work !
 - passing the exam (18) will probably be “easy”
 - sufficient paper and presentation quality
- obtaining the highest mark (30L) will require a very high quality work
 - the contribution and overall quality of the work are at such a high level that I would probably consider submitting it to a real conference with minor changes

EXAM RULES

- Your paper must clearly explain:
 - the area you are interested in
 - its purpose
 - the expected outcomes
 - the methodology you intend to apply
 - the obtained results
- Use short and clear sentences
- Be sure that each word you write is there for a reason!

EXAM RULES

- Harvesting ideas and knowledge from existing works is required
- Copy & paste from existing works is strictly forbidden.
- Suggested reading:
 - “How (and How Not) to Write a Good Systems Paper”
 - <http://www.usenix.org/event/samples/submit/advice.html>

EXAM RULES

- You presentation should last 30 minutes + 10 minutes for Q&A
- If you write a good paper the presentation will follow easily...
 - slides are only a support for you speech (the attendees should not be required to read)
 - figures are more than welcome
 - make use of practical examples if it helps
 - make sure your speech follows a clear reasoning line !

EXAM RULES

- Topics:
 - check on the website for a list of suggested topics for surveys and practical evaluations.
 - each suggestion can be chosen just once (assignments follow a FCFS policy)
 - you are not bound to my suggestions, but rather strongly invited to look in the literature and suggest you own topic of interest !
 - only constraint: it should be related to security/dependability aspects in distributed systems and/or complex infrastructures.

EXAM RULES

- Notices for Seminars in DS students:
 - Sharing you work between the two exams is not necessarily forbidden but...
 - the topic and expected results must be agreed upon between me and the SemSD lecturers
 - case-by-case evaluation