



PRAT

Seminars and image processing in practice

2022-2023

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- <http://www.perso.telecom-paristech.fr/~tupin/PRAT.html>





PRAT Seminars / Project

Objective: Put in practice acquired knowledge

Putting into situation facing real cases of companies or research laboratories

- **Seminars**
- **Project**

*Mandatory course credited by **6 ECTS***

■ Project (resp. V. Meas-Yedid)

- 2 parts:
 - Bibliography
 - Implementation
- Individual work
- Supervision by 1 or 2 supervisors



PRAT Seminars / Project

Organization:

- Duration: 14 sessions
- Choice of a subject: <http://www.bioimageanalysis.org/sujets-prat/>
- Send 2 or 3 choices with priorities to V. Meas-Yedid
- Once the subject are attributed, contact the supervisor

Validation:

- *Proposal of a plan and papers for 25th of oct.*
- Bibliographic report: **8th of novembre 2021**
- Oral presentation of the project at the end: **6th of feb. 2022**



PRAT project (1)

■ Bibliographic report (7 points)

- Written report on the bibliographic part
- **Deadline 8th of november**
- Evaluation: by the supervisor
- Evaluation criteria:
 - Understanding of the main paper
 - Search of other references and synthesis
 - Clarity
 - Provisional schedule for the project based on the bibliography study



PRAT project (2)

■ Oral presentation (5 points)

- Oral presentation of the whole project (15 min + 5 min de questions)
- To be done on **6th of february**
- Evaluation: by the course leaders
- Evaluation criteria:
 - Presentation of the context of the project
 - Highlighting of the main points of the implemented method
 - Discussion on the obtained results and critical analysis
 - Link with other approaches
 - Clarity of the oral presentation



PRAT project (3)

■ Project (8 points)

- Global evaluation of the project based on the project reports (report and codes) and on the interaction with the supervisor
- Evaluation: by the supervisor
- Evaluation criteria:
 - Quality of the project implementation and provided code
 - Quality of the final written report
 - Quality of the experiential analysis (experiments set up, critical analysis of the results)
 - Initiative and autonomy (improvement proposal, problem solving)
 - Interaction with the supervisor (answers to mails, punctuality, ...)



■ Seminars (resp. F. Tupin)

- Introduction to different applicative domains of image processing (in link with companies and research labs)

■ Examples:

- Computational photography (DxO)
- Biometry (Idemia)
- Genetics imaging
- Astrophysics imaging (CEA)
- Remote sensing
- Introduction to topological analysis of data



PRAT Seminars / project

■ Organization :

- Seminars at Jussieu at 1:45 p.m
- Program : <http://www.perso.telecom-paristech.fr/~tupin/PRAT.html>

■ Validation :

- attendance to the seminars is mandatory (any unjustified absence is sanctioned by a deduction of 2 points on the final grade)



Some recommendations

- Session for bibliographic search
- Report writing: on the methodological part (papers analysis), plagiarism prohibited, format of the references (authors, paper title, journal, year)
- Programming languages depending on the project (to be discussed with the supervisor)
- Oral presentation (15 min + questions) : context, methodological part, experimental part, critical analysis of the approach, conclusion

NB: the project requires an important personal work

You must be organized and anticipate in order to progress regularly

Contact your supervisor as soon as the projects are attributed