

# Research Methods and Professional Practice

## List of Topics for Literature Review

This is a general list of topics that can be taken irrespective from the M.Sc. you are enrolled in, although some are more related than others to specific subjects (e.g., cybersecurity, data science, etc). It is envisioned that only a small proportion of the list will be used at any one time, making it a varied list for each cohort. The items in red can be set by the team prior to the start of the module or left as is.

1. Digital Marketing of Small and Medium Scale Enterprises, in a city of your choice.
2. Recommender Systems in Digital Marketing, in a sector of your choice.
3. Implementing Machine Learning tools and/or techniques in:
  - Local waste management system based on a city of your choice.
  - Local transportation system based on a city of your choice.
  - The reduction of cyberbullying.
  - Epidemic modelling.
  - Customer profiling.
  - Suspect profiling.
  - Managing shop floor stock.
  - Traffic accident prediction.
  - Urban road data mining.
  - Predicting sports results.
  - Detecting political misinformation on a social media platform of your choice.
  - Detecting medical misinformation on a social media platform of your choice.



- Medication safety analysis.
- Image recognition of humans, animals or plants.
- Churn prediction.
- Sentiment Analysis.
- Crime prediction.
- Medical Diagnosis.
- Media & Entertainment (music, TV series, gaming) Recommendation Systems.
- Environmental Studies & Climate Change.

4. Implementing Deep Learning tools and/or techniques in:

- Local waste management system based on a city of your choice.
- Local transportation system based on a city of your choice.
- The reduction of cyberbullying.
- Epidemic modelling.
- Customer profiling.
- Suspect profiling.
- Managing shop floor stock.
- Traffic accident prediction.
- Urban road data mining.
- Predicting football results.
- Detecting political misinformation on a social media platform of your choice.
- Medication safety analysis.
- Image recognition of humans, animals or plants.
- Sentiment Analysis.



- Crime prediction.
  - Medical Diagnosis.
  - Media & Entertainment (music, Tv series, gaming) Recommender Systems.
  - Environmental Studies & Climate Change.
5. What is the gender pay gap in the technology sector in the country of your choice?
  6. Using technology to improve understanding of employment status.
  7. Assessing the Causes and Impacts of Increasing Road Traffic on the Environment and Individual, based on a city of your choice.
  8. Layering and Levelling the Cloud with Enterprise Standards: Example - SAP Cloud Platform.
  9. The Impact of LLMs (Large Language Models) in a sector of your choice.
  10. Data Visualisation for:
    - COVID-19 data analysis.
    - Epidemic modelling.
    - Modelling accurate information during a pandemic.
    - Identifying misinformation during a pandemic.
    - Environmental campaign organisations.
    - Airline sentiment analysis.
    - Product reviews sentiment analysis.
    - Sentiment analysis of a trends on a social media platform of your choice.
    - Economic crisis prediction.
    - Climate change.
    - Disaster Management.
  11. Cloud computing for building effective information systems in an industry of your choice.



12. The use of Dashboards in current business practice in a sector of your choice.
13. The adoption of Big Data platforms in a sector of your choice.
14. Use of Information Systems (IS) to transform the Healthcare Sector in a country of your choice.
15. Use of Information Systems (IS) to transform Small Businesses in a country of your choice.
16. AI-based assistive technology for the physically disabled and/or the elderly.
17. App Development to support the physically disabled and/or the elderly.
18. App development for emergency services (healthcare, fire department, disaster management).
19. Application of micro-services architecture in the development of web applications for an industry of your choice.
20. Developing a web application to visualise trends on a social media platform of your choice.
21. How can technology be used to raise awareness of a topic of your choice in children in a country of your choice.
22. How can technology be used to raise awareness a topic of your choice, to a group of your choice.
23. The impact of modern technology on student learning experiences in higher education.
24. Utilising and adapting IoT technology in secondary education in a country of your choice.
25. The Implementation of E-Learning.
26. Financial Impact of Ransomware and Malware in a sector /country of your choice.
27. State-sponsored cyberterrorism in global politics.
28. Generative AI impact in software security in emails or another application of your choice.
29. Cybersecurity threats in IoT in a sector of your choice.
30. Cloud security risks in a sector of your choice.

For future reference, variations on titles can be found in **the Theses and Dissertations section of the library**.