

I. IDENTIFICATION DATA

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| Thesis title: | Predictive Temporal Models for Effective Social Distancing during Pandemic |
| Author's name: | Anastasia Grigoryan |
| Type of thesis : | bachelor |
| Faculty/Institute: | Faculty of Electrical Engineering (FEE) |
| Department: | Department of Cybernetics |
| Thesis reviewer: | Claudio Coppola |
| Reviewer's department: | School of Electrical Engineering and Computer Science, Queen Mary University of London |

II. EVALUATION OF INDIVIDUAL CRITERIA

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| Assignment | challenging |
| <i>How demanding was the assigned project?</i> | |
| The challenge level requested is more than average, no complication should have come from the application of the models nor from the collection of the data. It aligns with what is expected from a bachelor Thesis. | |

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| Fulfilment of assignment | fulfilled |
| <i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i> | |
| The goal proposed by the thesis has been fulfilled. However, much more effort should have been spent in clarifying the results and the procedure of the experiments. | |

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| Methodology | correct |
| <i>Comment on the correctness of the approach and/or the solution methods.</i> | |
| The way those techniques are used during the experiments are rather unclear and would require better definition. In particular, the way the t-test has been used should be specified. Furthermore, no analysis has been provided regarding the model parameters (size of the spectrum, maximum total frequency). That said, the approach seems overall correct. | |

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| Technical level | D - satisfactory. |
| <i>Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?</i> | |
| The author uses some methods designed to extrapolate prominent periodicities of events present in literature on irregular data reporting the localized crowdedness. The algorithms used are sound modifications to those available in literature. However, little explanation has been provided regarding the potential improvement delivered by those modifications. | |

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| Formal and language level, scope of thesis | D - satisfactory. |
| <i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i> | |
| While the thesis seems to be well structured, the overall explanation of the methods, experiments and results seems have been rushed out reducing the clarity of the delivery: | |
| <ul style="list-style-type: none"> - The way the methods are applied on the data is unclear and it's unlikely that the procedure could be replicated by reading at the thesis. - Very few comments have been provided on the results obtained and with little visual aid. | |
| Furthermore, it seems that the presented algorithms in pseudocode were just taken from the actual code and quickly fixed. Indeed, one can still find references to the usage of numpy (np) or dict typical of python implementations. The latter case in particular, makes interpretation of the algorithm obscure and should be corrected. | |

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| Selection of sources, citation correctness | C - good. |
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Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

The previous work on temporal models has been mentioned adequately. Perhaps a better emphasis on the difference between those methods and those used should have been provided.

Additional commentary and evaluation (optional)

Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

The work provided seems sufficient for the set goal. However, I cannot refrain from thinking that many of the crucial aspects of the research process have been rushed. Similarly applies for the communication of the details of the process. This is still acceptable in the context of a bachelor thesis, but I strongly encourage to improve the above-mentioned aspects of the thesis, in case of extension of the presented work.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

Summarize your opinion on the thesis and explain your final grading. Pose questions that should be answered during the presentation and defense of the student's work.

The grade that I award for the thesis is **C - good**.

Date: **29.8.2021**

Signature:
