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Co-Authorship Form

This form is to accompany the submission of any PhD that contains published or unpublished co-authored work. **Please include one copy of this form for each co-authored work**. Completed forms should be included in all copies of your thesis submitted for examination and library deposit (including digital deposit), following your thesis Acknowledgements. Co-authored works may be included in a thesis if the candidate has written all or the majority of the text and had their contribution confirmed by all co-authors as not less than 65%.

Please indicate the chapter/section/pages of this thesis that are extracted from a co-authored work and give the title and publication details or details of submission of the co-authored work. Cooper, J. and Nicolescu, R. (2019) 'Alternative representations of P systems solutions to the graph colouring problem', Journal of Membrane Computing. Springer Singapore, 1(2), pp. 112–126. doi: 10.1007/s41965-019-00013-2. This paper forms the basis for Chapter 5 "The Graph Colouring Problem"	
Nature of contribution by PhD candidate	Devised cP system; programmed and ran experiments; prepared figures; drafted and revised manuscript
Extent of contribution by PhD candidate (%)	80

CO-AUTHORS

Name	Nature of Contribution
Radu Nicolescu	Provided editorial support. Assisted with finalising cP system.

Certification by Co-Authors

The undersigned hereby certify that:
- ❖ the above statement correctly reflects the nature and extent of the PhD candidate's contribution to this work, and the nature of the contribution of each of the co-authors; and
- ❖ that the candidate wrote all or the majority of the text.

Name	Signature	Date
Radu Nicolescu	*R Nicolescu*	17/09/2021