Form Segmentation with tesseract

Tanvir Hasan

Reg No: 12101005

Anup Kumar Kar

Reg No: 12101033

SayemHossain

Reg No: 12101046

submitted in partial fulfilment of the degree of

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Bangladesh.

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Declaration

I, hereby, declare that the work presented in this thesis is the outcome of the investigation performed by myself under the supervision of Dr. Saifuddin Md. Tareeq, Associate Professor, Department of Computer Science and Engineering, University of Dhaka. I also declare that no part of this thesis and thereof has been or is being submitted elsewhere for the award of any degree or diploma.

Countersigned	Signature
Dr. Saifuddin Md. Tareeq	Md. Shiplu Hawlader
Supervisor	Candidate

Approval

The Thesis Report "Amino Acid Interaction Network Prediction in Protein using Multi-objective Evolutionary Algorithm" submitted by Md. Shiplu Hawlader, Roll No: 1718, Session 2010-2011, to the Department of Computer Science & Engineering, University of Dhaka, has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of Master of Science in Computer Science & Engineering and approved as to its style and contents.

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Abstract

Protein can be represented by amino acid interaction network. This is a graph whose vertices are the proteins amino acids and whose edges are the interactions between them. This interaction network is the first step of proteins three-dimensional structure prediction. The network can be predicted using multi-objective evolutionary algorithm and the interaction between amino acid can be confirmed using ant colony algorithm optimization which is a probabilistic optimization algorithm. In this thesis a new multi-objective evolutionary optimization algorithm has been proposed to predict protein secondary structure network using ant colony optimization approach to predict the amino acid interactions.

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