Dr. T. LUCIA AGNES BEENA

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Skills

- ➢ 20 years' experience in the education field
- ➢ Energetic, dynamic approach to teaching.
- ➢ Very enthusiastic. Quickly establish strong relationships with students.
- ➢ Creative thinker. Enjoy challenging young minds.
- ➢ Forthright and assertive. A friendly, competent and hardworking employee.
- ➢ Strong organization and motivation skills.

Present Position	Asst. Professor, Dept. of InformationTechnology, St. Joseph's College Tiruchirappalli – 2.
Research Area	Psychology of Computer Programming, Cloud Computing
International Journal Publications	18
International/National Conferences/ State Level Seminars/Workshop Attended	50
FDP Attended	2
Seminars & Workshops Organized	4
Book Publication	2
Book Chapter Publication	10
Acted as Resource Person	12

Educational Qualification

Education Qualification	College & University	Year of passing	Percentage
Ph. D	Jamal Mohamed College, Bharathidasan University Tiruchirappalli - 20	Oct 2017	90
State Eligibility Test (SET) in Computer Science and Applications	Bharathiar University	Oct 2012	65
National Educational Test (NET) (UGC) in Computer Science and Applications	UGC	June 2012	55
B.Ed.	Jai Sai college, Uttayanpatti, Tiruchirappalli –	June 2011	71
M.Phil Computer Science	(Distance Education) Bharathidasan University Tiruchirappalli – 20	May 2005	85
M.C.A	St.Joseph's College Bharathidasan University Tiruchirappalli - 2	May 1996	72
B.Sc Physics	Holy Cross College Bharathidasan University Tiruchirappalli – 2	May 1993	82
XII	St. Philomena's Girls' Hr. Sec. School, Melapudur Tiruchirappalli -1.	May 1990	81
X	St. Philomena's Girls' Hr. Sec. School, Melapudur Tiruchirappalli -1.	May 1988	82

Professional Experience

Organization	Period	Designation
St. Joseph's College, Trichy	Jun 2019 – Till date	Asst. Professor, Dept. of Information Technology
St. Joseph's College, Trichy	Jun 2016 – Jul 2019	Asst. Professor & Head, Dept. of Information Technology
St. Joseph's College, Trichy	Jun 2011 – May 2016	Asst. Professor, Dept. of Information Technology Handled various courses at Under-graduate and Post-Graduate levels.
St. Joseph's College, Trichy	Jun 2007 – Nov 2008	Asst. Professor, Dept. of Information Technology Handled various courses at Under-graduate and Post-Graduate levels.
Bharathidasan University, Trichy	Nov 2005 – May 2006	Guest Lecturer, Dept. of Computer Science Handled various courses at Under-graduate and Post-Graduate levels
Holy Cross College, Trichy	Jun 2003 – Nov 2005	Asst. Professor & Head, Dept. of Computer Science Framed syllabi for Under-graduate and Post-graduate courses. Organized various workshops for staff and students.
Holy Cross College, Trichy	Jun 1998 – Jun 2003	Asst. Professor, Dept. of Computer Science Handled various courses at Under-graduate and Post-Graduate levels.

Ph. D Dissertation

Title

Design of Compile-time Workflow Scheduling Algorithms for Cloud Environment with Performance Enhancement

Abstract

Infrastructure as a Service (IaaS) is one of the common Cloud service models, which is most used by the scientific applications. As the users are charged only for the usage of resources based on the Service Level Agreements (SLA), the users are attracted towards the IaaS. Workflow scheduling is a complex issue in IaaS because multiple scheduling parameters are to be considered to satisfy the Quality of Service parameters. Workflow applications comprises of various sub-tasks, which are to be executed in a particular method. These tasks have parent child relationship. The parent task needs to be executed before its child task. Workflow scheduling algorithms are supposed to preserve dependency constraints implied by their nature and structure. Resources are allocated to various sub-tasks of the original task by keeping into account these constraints. The role of workflow scheduling algorithm is to find the schedule which satisfies the SLA

document which is written between a cloud user and a cloud service provider. Many heuristic algorithms were proposed in the literature, targeted only a single parameter for scheduling. But the user may require multiple objectives to be satisfied such as cost optimization, makespan optimization, reliability, deadline constrained, budget constrained etc. Hence, it is the responsibility of the Scheduling algorithm to find the optimal schedule that satisfies the SLA.

In this research work, four algorithms CFCSC, LBTP, WSGA and DEWS are proposed. The objectives of all the four algorithms are to minimize the overall execution time of the application and to minimize the cost of executing the application. All four algorithms assume the following assumptions :

A set of heterogeneous virtual machines (VMs) denoted by M are considered for creating cloud environment.

The communication network is always connected.

Tasks are executed normally and there are no failures.

Tasks are non-preemptive

Based on the number of tasks in the input DAG, the resources needed for the DAG is decided using the equation $r = \lfloor n \rfloor$ where n is the number of tasks in the application and r is the number of resources(virtual machines) needed for computation. The pricing model adopted for calculating the cost of execution of the application are decided based on the Google AppEngine pricing Model. Arbitrary task graphs and Regular scientific workflow applications are supplied to all the algorithms and their performance in the form overall execution time and the cost of execution are recorded. The performance of the algorithms in the Workflowsim (Extension of Cloudsim) tool are also documented and found that they give better results compared to the simulated Java environment. Among the four proposed algorithms DEWS, the Differential Evolution Algorithm for Workflow Scheduling (DEWS) for Public Cloud yields optimal results with respect to the scheduling parameters makespan and cost.

M.Phil. Dissertation

Title	Effect of Selected Factors on Programming Task Comprehension on Object-Oriented Systems
Abstract	Computer programming studies commonly view programming either as an aggregate task or as a set of components (sub tasks). Shneiderman and Mayer (1979) and Brooks (1977) made early attempts to model general cognitive processes in programming. The complexity of examining programming as a single problem – solving task soon become obvious and researchers began following early suggestion (Shneiderman 1976) in focusing intently on individual sub task. Weinberg also suggested that different aspects of software development require different abilities. To examine this, a study was

carried out to discover if there were any factors which tended to perform better at one specific task, in this case comprehension. The factors taken for this study were the gender and personality characteristics of the respondents. This study investigated if there was any effect between the gender and the comprehension of the respondents and found that there was a relationship between them. The study also found that male respondents with cooperativeness, high emotional stability performed significantly better than the female respondents on the task.

Book Publications				
Book Title	**Publisher**	**Edition**	**ISBN**	**Year**
Computer Literacy - WML Advanced Engineering Research and Applications, Vol. II - chapter 26	St Joseph's College	1	0	2014
"Scheduling Framework for Regular Scientific Workflows in Cloud"	Research India	1	9789386138583	2017
Performance Enhancing Workflow Scheduling for Cloud	Scholars Press	1	9786202305310	2017
Computer Literacy - Unit V : Cyber Crime	St Joseph`s College	1	0	2017
Lesson Writer for the CDE-MCA Programme - Core Course VIII - Programming in Java	Bharathidasan University	1	0	2017
Novel Practices and Trends in Grid and Cloud Computing _ IGI Global--chapter 8 Edge-Cloud_-The-Future-Technology-for-Internet-of-Things	IGI Global	1	1522590234	2019
Chapter Title: Big Data Management Solutions for IoT : Case Study: Connected car	CRC Press	1	97810030367391	2020
Chapter Title: Big Data Programming Models for IoT Data	CRC Press	1	9780367342890	2020

Chapter Title: Framework for approaching Blockchain in Healthcare using Machine Learning, BOOK TITLE: Blockchain and Machine Learning for e-Healthcare Systems	CRC Press	1	978-1-83953-114	2020
chapter title: Machine Learning Based Case Studies for Healthcare Analytics in Book: Machine Learning and Analytics in Healthcare Systems	CRC Press,Taylor &Francis	1	9781003185246	2021
Blockcain and Machine Learning for e-Healthcare Systems	IET, UK	1	978-1-83953-114	2020
Book Chapter - An Industrial IoT Approach for Pharmaceutical Industry Growth-- Accelerating data acquisition process in the pharmaceutical industry using Internet of Things	Elsevier	1	9780128213261	May 2020
Chapter title : Blockchain in Book Blockchain, Internet of Things, and Artificial Intelligence	CRC Press,Taylor &Francis	1	9780429352898	2021
Chapter :Storage, System Security and Access Control for Big Data IoT in Book Blockchain, Internet of Things, and Artificial Intelligence	CRC Press,Taylor &Francis	1	9780429352898	2021
Chapter : Smart e-learning transition using big data: perspectives and opportunities in Book E-learning Methodologies Fundamentals, technologies and applications	IET, UK	1	97818395312	2021

International Journal Publications

1. Dr. T. Lucia Agnes Beena, A. Antony Sushana Vinoliya, "The Method of Providing for IOE-Behaviours, International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 8, Issue 2, March 2019, *UGC Approved Journal*.

2. Dr. T. Lucia Agnes Beena, E. Solomon Raja, "Effectiveness of Online Education over Traditional Education", International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 8, Issue 1, January 2019, *UGC Approved Journal*.

3. Dr. T. Lucia Agnes Beena, B. Antoniyammal, "Tweet Segmentation and Classification for Rumour Identification Using KNN Approach", International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 8, Issue 1, January 2019, *UGC Approved Journal*.

4. Dr. T. Lucia Agnes Beena, "Energy Efficient Workflow Scheduling Algorithms for Cloud Data Centers", International Journal of Scientific Research in Computer Science Applications and Management Studies, Volume 7, Issue 4, July 2018, *UGC Approved Journal*.

5. Dr. T. Lucia Agnes Beena, A. Irudhaya Amala Benitta, "Analyze of Mobile Shopping Using Naivebayes Classifier' in the International Journal of Scientific Research in Science, Engineering and Technology (IJSRSET), Volume 4, Issue 8, May-June-2018, Impact factor: 4.916, *UGC Approved Journal.*

6. Dr. T. Lucia Agnes Beena, S. Jegan Benish, **"**Securing Data Storage in Cloud with Generating OTP using SHA Algorithm", International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT), Volume 3, Issue 5, May-June 2018, Impact factor: 4.032, *UGC Approved Journal.*

7. Dr. T. Lucia Agnes Beena, J. Jenifer Lawanya, "Simulators for Cloud Computing - A Survey", International Journal of Scientific Research in Science, Engineering and Technology (IJSRSET), Volume 4, Issue 4, March-April-2018, Impact factor: 4.916, *UGC Approved Journal.*

8. Dr. T. Lucia Agnes Beena, "Resource Utilization of Workflow Scheduling Algorithms in Public Cloud", International Journal of Scientific Research in Science, Engineering and Technology, Vol. 4, pp. 1132 - 1140, 2018, Impact factor: 4.916, *UGC Approved Journal.*

9. Dr. D. I. George Amalarethinam, T. Lucia Agnes Beena, "Comparative Analysis of Workflow Scheduling Algorithms in Public Cloud", 2nd World Congress on Computing and Communication Technologies (WCCCT-2016), St. Joseph's College, Tiruchirappalli, India, Feb 2017, *Published in IEEE Xplore.*

10. Dr. D. I. George Amalarethinam, T. Lucia Agnes Beena, "Workflow Scheduling for Public Cloud using Genetic Algorithm (WSGA)", IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN: 2278-0661,p-ISSN: 2278-8727, Volume 18, Issue 3, Ver. V, PP 23-27, May-Jun. 2016, Impact factor : 1.213, *UGC Approved Journal.*

11. Dr. D. I. George Amalarethinam, T. Lucia Agnes Beena, "Differential Evolution Algorithm for Workflow Scheduling (DEWS) in Public Cloud", International Journal of Control Theory

and Applications, Vol. 9, No. 27, pp. 43 – 50, ISSN No:0974-5572,   Oct 2016, *Scopus indexed Journal.*

12. Dr. D. I. George Amalarethinam, T. Lucia Agnes Beena, "Analysis of Task Scheduling Algorithm in fine-grained and course-grained DAGs in Cloud environment", International Journal of Fuzzy Mathematical Archive (IJFMA), India, Jan 2015,   Impact factor : 1.137, *UGC Approved Journal.*

13. Dr. D. I. George Amalarethinam, T. Lucia Agnes Beena, "Customer Facilitated Cost-based Scheduling (CFCSC) in Cloud", Procedia Computer Science, Elsevier Publication, Vol. 46C, pp. 660-667, April 2015, *Scopus indexed Journal.*

14. Dr. D. I. George Amalarethinam, T. Lucia Agnes Beena, "Scheduling Framework for Regular Scientific Workflows in Cloud", International Journal of Applied Engineering Research (IJAER) - Vol. 10, No.82, pp. 267 -271, Dec 2015, *Scopus indexed and UGC Approved Journal.*

15. Dr. D. I. George Amalarethinam, T. Lucia Agnes Beena, "Level Based Task Prioritization Scheduling for Small Workflows in Cloud Environment", Indian Journal of Science and Technology, Vol 8. No. 33, pp. 1 -7, DOI: 10.17485/ijst/2015/v8i33/71741, Dec 2015, *Scopus indexed Journal.*

16. Dr. D. I. George Amalarethinam, T. Lucia Agnes Beena, "Cloud Scheduling – A Survey", International Journal of Computer Applications, Published by Foundation of Computer Science, New York, USA, Vol. 97, Issue 13, pp. 27-31, July 2014, Impact factor : 0.752.

17. V. Maria Antoniate Martin, T. Lucia Agnes Beena, "Prediction of Association among Numerical Aptitude, Programming Skills, Trait, Emotional Intelligence on Students Performance", International Journal on Computer Science and E ngineering (IJCSE), Vol. 3, pp.1639 - 1646, 2012

18. L. Arockiam, T. Lucia Agnes Beena, Kanagala Uma, H. M. Leena, "Object-Oriented program comprehension and personality traits", Proceedings of Software Measurement European Forum 2005, International event, Rome, pp: 123-129, March 2005.

Seminars and Workshops Organized

1. Workshop on Internet of Things and its Applications, St Joseph's College, Trichy-2, 15/12/2017

2. Endowment Workshop on Current Trends in Computer Science, St Joseph's College, Trichy – 2, 31/08– 01/09/2017

3. National Seminar on Effective eLearning with Cloud-based Services and LMS, St. Joseph's College, Trichy – 2, 15/12 – 16/12/ 2016

4. Emerging Trends in Information Technology, Holy Cross College, 29/11 – 30/11/2001

Resource Person

Type of Programme	Title	Beneficiaries	Days	Date
National Level Virtual Conference - Chair Person	National Level Virtual Conference on Information and	150	1	2022-02-25

	Computing Technologies			
Association Inauguration	Habitual changes for Successful Life	120	1	2021-09-17
Faculty Development Programme	Recent Trends in Computer Science	202	7	2020-07-22
Webinar	Data Science, Rabiammal Ahamed Maideen College for Women, Tiruvarur	50	1	2020-06-02
Webinar	Introduction to Data Science, Jamal Mohamed College	50	1	2020-04-26
Online Course	Online Crash Course on Web Design	92	7	2020-04-20
Online Course	Java Script Basics : The World?s Favorite Scripting Language	69	7	2020-04-10
Idea challenge competition	The Quest 2019	120	1	2019-12-16
Guest Lecture	Data Science using R - Annai Vailankanni Arts amd Science College, Tanjore	BCA students	1	2019-02-22
Chair person - Paper presentation Event - Web scintillators 2018	Holy Cross College (Autonomous), Tiruchirappalli - 2.	UG and PG computer science	1	2018-08-27
UGC Sponsored Guest Lecture	Data Science through R	MCA students of Jamal Mohamed College	1	2018-02-13
Training Programme	Faculty Development Programme - NET Training	Staff members - Dept. of CS., Cauvery College, Try	1	2017-08-19

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