

## Faculty Profile of Dr. S. Sarala



**Dr. S. Sarala**  
**Associate Professor**  
**Department of Computer Applications**

Email:sarala@buc.edu.in

### Research Area

- Software Testing
- Software Engineering
- Data Structures
- Compiler Design
- Object Oriented Programming Concepts

### Education & Career

#### Education

**Ph. D.**

Subject : \*\*\*\*\*

Institution : \*\*\*\*\* , \*\*\*\*\*

Affiliated University : \*\*\*\*\* University

Year of Award : \*\*\*\*

**M.Phil.,**

Subject : \*\*\*\*\*

Institution : \*\*\*\*\* , \*\*\*\*\*

Affiliated University : \*\*\*\*\* University

Year of Award : \*\*\*\*

**M. Sc.,**

Subject: \*\*\*\*\*

Institution : \*\*\*\*\* , \*\*\*\*\*

Affiliated University : \*\*\*\*\* University

Year of Award : \*\*\*\*

**B. Sc.,**

Subject: \*\*\*\*\*

Institution: \*\*\*\*\*

Affiliated University: \*\*\*\*\* University

Year of Award: \*\*\*\*

**Career**

**At Bharathiar University (Reverse Order)**

**Past Experience**

**Awards**

**Membership**

**Visits**

## **Collaborators**

## **Others**

## **Projects**

### Funded Projects (National Level)

- [Ongoing](#)
- [Completed](#)

Ongoing Projects List with necessary Information

Completed Projects List with necessary Information

### Consultancy Projects

- [Ongoing](#)
- [Completed](#)

Ongoing Consultancy Project Informations

Completed Consultancy Project Informations

## **Research Guidance**

- [Post Doc.](#)
- [Ph.D.](#)
- [M.Phil.](#)
- [M.Sc.](#)

Ongoing

Title

Name

Completed

Title

Name

Ongoing

Sl. No. : 1

Name of the candidate :Rahib.B

Title of the Thesis : A More Precise and Pragmatic Optimization Algorithm for Partial Redundancy Elimination of Common Subexpressions

Status: Synopsis Submitted

Year : 2007

Completed

Sl. No. : 1

Name of the candidate :Beena R

Title of the Thesis : Dynamic Approaches for Test case Optimization in Regression Testing

Year : 2015

Sl. No. : 2

Name of the candidate :Mythili S

Title of the Thesis :Detection of clone in Programming Language Paradigms and Model Driven Architecture

Year : 2015

Sl. No. : 3

Name of the candidate :Abdul Jabbar P

Title of the Thesis : Enhanced Algorithms for Software Complexity metrics in Object Oriented Programming

Year : 2015

Sl. No. : 4

Name of the candidate :Angel S

Title of the Thesis : Analysis of Object Oriented code clone detection

Year : 2018

Ongoing

Sample Data.

Completed

Sl. No. :1

Name of the candidate :Priyadharshini V

Title of the Thesis : Optimization Code Reusability for Mobile Application with Test case Generation

Year : 2011

Sl. No. :2

Name of the candidate :Uma Devi M

Title of the Thesis : Handling the Residual and Inherent Risks by matrix techniques

Year : 2011

Sl. No. :3

Name of the candidate :Kavitha S

Title of the Thesis : Translation of Tamil and English Languages using word Paradigm Approach

Year : 2012

Sl. No. :4

Name of the candidate :Mahalakshmi K

Title of the Thesis :Visual quality Estimation of Video using Specification based Test Case Generation

Year : 2012

Sl. No. :5

Name of the candidate :Deepika M

Title of the Thesis : An Integrated Performance of Clone Detection and

Removal using Refactoring patterns in C# Applications

Year : 2014

Sl. No. :6

Name of the candidate :Indumathi D

Title of the Thesis : Partitioned Block based Approach in Adaptive Random Testing and Test case Generation using Matrix

Year : 2014

Sl. No. :7

Name of the candidate :JacquelineShirly LS

Title of the Thesis : A Linear based Approach for Detection of Potential Dead locks in Large scale Multithreaded Programs

Year : 2015

Sl. No. :8

Name of the candidate :Nithya J

Title of the Thesis :Enhanced Project Scheduling by using Dynamic Proxy based Project Scheduler

Year : 2015

Sl. No. :9

Name of the candidate :Shanmugadevi S

Title of the Thesis :Automated INCOUP Tools for Coupling based Integration Testing

Year : 2015

Ongoing

Sample Data.

Completed

Sample Data.

**Research Publication**

- [International](#)
- [National](#)
- [Patents](#)
- [Conferences](#)
- [Books / Chapters](#)
- [Database](#)

## Reverse Chronological Order

2021

2020-2011

### 18. A Refinement on E-Path Partial Redundancy Elimination

Sarala S. and Rahibb

International Journal of Recent Technology and Engineering, BEIESP,  
Scopus Indexed Journal, ISSN: 2277-3878, India, Vol.8, pp. 1- 5, 2019.

### 17. Pros and Cons of Partial Redundancy Elimination Algorithm

Sarala S. and Rahibb

International Journal of Research in Advent Technology and Engineering,  
BEIESP,  
Scopus Indexed Journal, ISSN: 2321-9637, India, Vol.1, pp. 89- 93, 2019.

### 16. Regression Test Case Minimization Using Cyclomatic Complexity,

S.Sarala and R.Beena

International Journal of Applied Engineering Research (IJAER),  
Vol-9, no.24, pp.109-123, Jan-2014, ISSN :0973-4562, Scopus Index.

### 15. Bi-objective Test Case Selection using Abstract Syntax Tree and Tree Matching Algorithm"

S.Sarala and R.Beena,

International Journal of Software Engineering and its Applications (IJSEIA),  
vol. 9, no. 4, pp. 53-66, ISSN : 1738-9984, Scopus Index.

### 14. "An Efficient Specific Update Search Domain based Glowworm Swarm Optimization for Test Case Prioritization",

S.Saralaand R.Beena

International Arab Journal of Information Technology,

ISSN: 2309-4524, Science Citation Index.

13.“Multi-objective Test Case Minimization Collaborated with Clustering and Minimal Hitting Set”,

S.Saralaand R.Beena

Journal of Theoretical and Applied Information Technology (JATIT),

vol. 69, no. 1, pp. 200-210, 2014, ISSN: 1992-8645, Scopus Index.

12.“Code Coverage based Test Case Selection and Prioritization”,

S.Saralaand R.Beena

International Journal of Software Engineering and Applications (IJSEA),

vol. 4, no. 6, pp. 39 – 49, Nov. 2013, ISSN: 0975-9018.

11.“Implication of clone detection and refactoring techniques using delayed duplicate detection refactoring”,

S.Sarala and M. Deepika

International Journal of Computer Applications,

Vol.93, no.6, pp.5-10, 2014.

10. “Fragment Analysis and Test Case Generation using F-Measure for Adaptive Random Testing and Partitioned Block based Adaptive Random Testing”,

S.Sarala and D. Indhumathi

International Journal of Computer Applications,

Vol-1,pp. 85-92, 2013.

9.“A Novel Weight Assignment method to identify clones in Diagrams”,

S.Saralaand Mythili S

International Journal of Applied Engineering Research,

Vol.14, pp.253-263, ISSN : 0973-4562, Indexed byScopus.IF:

8.“A Measurement of Similarity to identify Identical Code Clones using Hierarchical Clustering”,

S.Saralaand Mythili S.

International Arab Journal of Information Technology,

ISSN:2309-4524,IF : 0.582,Science Citation Index..



7. "Efficient Weight Assignment Method for Detection of Clones in State Flow Diagrams",  
S.Sarala and Mythili S.  
International Journal of Software Engineering Research and Practices,  
vol.4, no.2, pp. 12-16, ISSN: 2231-2048.If.0.35
6. "Detection of Recurring Clones Using Weighted Frequent Itemset Mining",  
S.Sarala and Mythili S.  
International Journal of Software Engineering and its Applications  
Vol. 8, no.7, pp. 159 - 176, ISSN : 1738-9984, Scopus Index.If.0.762
5. 'A Language Independent Approach for Method Level Clone Detection Using Fingerprinting',  
S.Sarala and Mythili S.  
International Journal of Advanced Research in Computer Science,  
Vol.3, no.2, pp. 368-371, ISSN: 0976-5697.If.2.315.
4. 'Information Flow Metrics Analysis in Object Oriented Programming and Metrics Validation Process by RAA Algorithm',  
S.Sarala and Abdul Jabbar  
Journal of Advances in Engineering Software  
Elsevier Publication, pp. 30-37, 2012. If.1.402
3. 'A Study on Penetration Testing',  
Sarala S. and S. Angel  
International Journal of Advanced Research in Computer Science  
Vol-2, No.5, pp.396-398.IF.2.315
2. 'Advanced Information Flow Metrics and Complexity Measurement',  
Sarala S. and Abdul Jabbar P  
International Journal of Computer Applications  
New York, USA, Vol. 2, pp. 29-33.IF.0.814
1. 'Algorithms for Defect Detection in Object Oriented Programs'  
Sarala S. and Valli S  
Information Technology Journal, Asian Network for Scientific Information,  
Vol. 5, No. 5, pp. 876-883.

2021

2020-2011

1.Algorithms for Defect Detection in Console Based Applications in C#  
Sarala S and Valli S  
The ICFAI Journal of Systems Management  
ICFAI University Press, India, pp. 46-55.

Patent Info

Conference Info

Books Editor in Year Wise

1.‘Enhanced Rule Accuracy Algorithm for Validating Software Metrics’  
Sarala S.and Abdul Jabbar  
Communications in Computer and Information Science,  
Book Chapter in Springer Verlag, Vol.305, pp.406-412.

Chapter Editor in Year Wise

Accordion content 2.

Database Related Info

Alumini Reflections: