Dr. P. Radhika Raju M.Tech., Ph. D

Assistant Professor (Ad-hoc) Department of Computer Science and Engineering, Jawaharlal Nehru Technological University Anantapur Ananthapuramu – 515 002, Andhra Pradesh, India

Bio-data

Name : Dr. P. Radhika Raju

Parents : Late Sri SP. Krishnam Raju

Smt. V. Sarojamma

Official Address : Assistant Professor (Adhoc)

Department of Computer Science &

Engineering, Jawaharlal Nehru

Technological University Anantapur,

Ananthapuramu – 515 002, Andhra Pradesh,

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Residential Address : #18/1/542-B, Venugopal Nagar,

An an tha puramu-515005.

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radhikarajup.cse@jntua.ac.in

Nationality : Indian

Religion : Hindu

Date of Birth & Place of Birth : 8thMarch, 1977

Andhra Pradesh, India.

Aadhar No : 6323-4568-1258

1. Educational Qualifications:

| Course | Name of the Institution | Name of the | Year of | % of | Division |
|--------------|--------------------------|--------------|------------|----------|-----------|
| | studied | University | graduation | marks | |
| | | | | obtained | |
| SSC | LFMH School, ATP | Board of | 1992 | 75.1 | First |
| | | Secondary | | | |
| | | Education | | | |
| Intermediate | PRR Junior College, ATP | Board of | 1994 | 67.7 | First |
| /Diploma | | Intermediate | | | |
| | | Education | | | |
| B. Tech/B.E. | PVKK Degree College, ATP | SKU | 1997 | 59.56 | First |
| MCA | IGNOU Study Centre ATP | IGNOU | 2003 | 64.45 | First |
| M. Tech | JNTUA CEA | JNTUA | 2009 | 83 | First |
| | | | | | Class |
| | | | | | with |
| | | | | | Distincti |
| | | | | | on |
| Ph.D. | | JNTUA | 2016 | | |

2. Details of Doctoral thesis:

Area : Software Engineering

Title : Methodology for Dynamic Program Invariants to

Support Software Evolution

Supervisor : Dr. A. Ananda Rao

Year of award of Ph.D : 2016

Professional Experience : 23 years

3. Experience

| Name of the employer/ | Your | Duration of | Employment | Nature of Duties |
|------------------------|----------------|--------------------|------------|------------------|
| Organization | Designation | From | To | |
| MCRP University Study | Lecturer | 01-08-1997 | 04-08-1998 | Teaching |
| Centre, ATP | | | | |
| Aptech Computer | Faculty | 05-08-1998 | 30-06-2000 | Teaching |
| Education, ATP | | | | |
| PVKK Degree College, | Lecturer | 01-07-2000 | 31-08-2003 | Teaching |
| ATP | | | | |
| KSN Degree College, | Lecturer on | 01-09-2003 | 10-04-2005 | Teaching |
| ATP | contract basis | | | |
| Balaji PG College, ATP | Lecturer | 01-09-2003 | 30-06-2005 | Teaching |
| JNTUA CE, ATP | Adhoc Lecturer | 01-07-2005 | 31-09-2007 | Teaching |
| JNTUA CE, ATP | Adhoc Lecturer | 12-12-2008 | Continuing | Teaching & |
| | | | | Research |

Teaching Experience: 23 years

Subjects Taught:

| Undergraduate Courses | Postgraduate Courses |
|---------------------------------------------------------|----------------------------------|
| ❖ Data Structures | ❖ Advanced Data Structures & |
| Software Engineering | Algorithms |
| Software Testing Methodologies | Advances in Software Engineering |
| Software Architecture | ❖ Software Quality Assurance and |
| Software Project Management | Testing |
| Design Patterns | Service Oriented Architecture |
| Object Oriented Analysis & Design | ❖ Scalable Data Systems & |
| Database Management Systems | Algorithms |
| Data Warehousing and Mining | Software Maintenance and |

- Service Oriented Architecture
- ❖ Programming in C & Data Structures
- Computer Organization
- Operating Systems
- Artificial Intelligence

Evolution

- ❖ Software Metrics and Reuse
- Computer Graphics
- **❖** Data Warehousing and Mining
- Computer Organization
- **❖** Operating Systems
- Principles of Programming Languages
- **❖** Advanced Computer Architecture
- Computer Networks
- Distributed Databases
- Machine Learning
- **❖** Database Management Systems
- ❖ In addition, the laboratories of UG and PG programmes in the areas of Computer Science have been dealt with.

Research Interests:

Databases, Data Structures, Software Engineering and Service Oriented Architecture, Artificial Intelligence, Machine Learning.

Research Guidance:

- Guided **20** M.Tech projects, 1 projectis in progress
- Guided 4 B. Tech projects
- Guided 14 MCA projects, 2 projects are in progress
- Guiding 2 Ph.D Scholars

Research Publications:

16 papers are published in international conferences

01 paper published in national conference

25 papers published in international journals.

Professional Membership: IAENG, Life Member in CSI

Number of Seminars/Conference/Workshops attended : 25

Professional Services:

- Delivered lectures as an expert for Ph.D course work in JNTUA
- Coordinator for conducting various cources on Databases
- Delivered guest lectures in various engineering colleges
- Worked for BoS JNTUA, JNTUACEA
- Acted as judge for paper presentation in student symposium PIXEL in JNTUACEA
- Worked for NBA in CSE department, JNTUACEA
- Organizing committee member for workshops, seminars, FDPs, training programs etc., in CSE department, JNTUACEA

Book/Book Chapters:

| S.No. | Title of Book/Chapter | Name of the Publication, edition and year | Book / Book Chapter |
|-------|----------------------------|-------------------------------------------|------------------------|
| 1 | Data Structures and | Ananda Rao | Book |
| | Algorithms Using C++ | Akepogu and | |
| | | Radhika Raju | |
| | | Palagiri, | |
| | | Pearson Education. | |
| | | 2010 | |



4. Patents

| S. no | Name of | Departm | Obtai | patent | patent | patent | Patent | Paten | Amou | Whether |
|-------|---------|---------|-------|-----------|--------|------------|--------|-------|---------|--------------|
| | stream | ent | ned / | registere | title | type | Numbe | t | nt (Rs) | (institution |
| | | | filed | d | | (Produ | r | Grant | | al /joint) |
| | | | | (National | | ct/ | | Year | | |
| | | | | / | | Proces | | | | |
| | | | | Internati | | s) | | | | |

| | | | | onal) | | | | |
|---|-----------------------------|-----------------------------------------------|-------|-------|------------------------------------------------------------|--------------------|---|-------|
| 1 | Science and Engineeri | Computer Science and Engineeri ng | Filed | | Multicore System for Reprocess ing of Tasks | 2018410 09115 A | _ | Joint |

5. Research Guidance Provided

List of B. Tech Projects Guided

| S.No | Admission No | Title of the Project | Year |
|------|--------------|------------------------------------------------------------|------|
| 1. | 09001A0552 | Addressing Scalability Issues in Client Side Load Balancer | 2013 |
| | 09001A0515 | Using Cloud | |
| 2. | 12001A0519 | KNN Classifier | 2016 |
| | 12001A0536 | | |
| 3. | 13001A0556 | Android App on Anantapur Tourism | 2017 |
| | 13001A0554 | | |
| 4. | 14001A0536 | Website for Event Booking | 2018 |
| | 15005A0503 | | |

List of M. Tech Projects Guided

| S.No | Admission No | Title of the Project | Year |
|------|--------------|-----------------------------------------------------------------------------------|------|
| 1. | 09001D5221 | Controlling Model Driven Test Cases Using GUI Feedback | 2011 |
| 2. | 10001D5223 | Improving Regression Test Coverage Using Parse Tree | 2012 |
| 3. | 11001D5204 | Fault Tolerant Concurrent Service Composition in Service Oriented Architecture | 2013 |
| 4. | 11001D5223 | Prediction of Top Crashes in the Software Systems | 2013 |

| 5. | 14001D5204 | Development of Service Oriented Situational Web applications using KDS. | 2016 |
|-----|------------|--------------------------------------------------------------------------------|------|
| 6. | 14001D5220 | Improvising the Quality of ARPT using Grefenstette method | 2016 |
| 7. | 15001D5107 | A Graphical Data Fusion Approach for Mining Health Records. | 2017 |
| 8. | 15001D5135 | Analysing the Performance and Scalability of Indexing Techniques. | 2017 |
| 9. | 15001D5217 | Measuring Software Quality Using Micro Interaction Metrics. | 2017 |
| 10. | 16001D5101 | Data Locality Aware Job Scheduling for Improving Performance of MapReduce. | 2018 |
| 11. | 16001D5207 | Relevant Keyword Search for Building Service-Based System. | 2018 |
| 12. | 17001D5218 | Automated Test Case Generation in Entity Reconciliation Applications. | 2019 |
| 13. | 17001D5210 | Improving Efficiency of Quality Correlation in Query Using Spark. | 2019 |
| 14. | 17001D5203 | Reduction of Search Space in RESTful Service Discovery. | 2019 |
| 15. | 17001D5215 | A Test Case Generation for Boolean Expressions by Using Set and Cell Covering. | 2019 |
| 16. | 17001D5226 | Improving the Quality of Recovered Architectures Using Weighted Dependencies. | 2019 |
| 17. | 17001D5409 | Trust Value Calculation for Cloud Resources. | 2019 |
| 18. | 18001D5216 | Enhancing Automated Testing Efficiency Using Code Based Features | 2020 |
| 19. | 18001D5117 | Improvising Container Scheduling Using Genetic Algorithm | 2020 |
| 20 | 18001D5206 | Integrating MAPT and RAPT for Improving Adaptive Partition Testing Performance | 2020 |

List of MCA Projects Guided

| S.No | Admission No | Title of the Project | Year |
|------|--------------|---------------------------------------------------------|------|
| 1. | 10001F0032 | Credit Payment Processing System | 2013 |
| 2. | 12001F0032 | Conjunctive and Geomorphic Testimonial of Friends Using | 2015 |
| | | Weblog-Based Social Network Analysis | |
| 3. | 12001F0047 | Sleuthing Concept Drift Using Statistical Testing | 2015 |
| 4. | 11001F0025 | Automation MNREGA Program | 2016 |
| 5. | 13001F0017 | EATNOW | 2016 |
| 6. | 13001F0043 | Water Management System | 2016 |
| 7. | 14001F0034 | Automating Allotment of Invigilation Duties | 2017 |
| 8. | 14001F0055 | National Parks of India. | 2017 |
| 9. | 15001F0027 | Analyzing and Optimizing Spark Performance. | 2018 |
| 10. | 15001F0002 | Big Data Technologies to Improve Human Life. | 2018 |
| 11. | 16001F0053 | Collaborative Big Data Analytics | 2019 |
| 12. | 16001F0034 | Performance Analysis of Read and Write Operations in | 2019 |
| | | HDFS | |
| 13 | 17001F0010 | Improvising the Bit Combination for Frequent item Sets | 2020 |
| 14 | 18005F0064 | Credit card fraud detection using naïve baye's and ANN | 2020 |

List of Ph.D's under supervision

| S. | Admission | Title of the Research Work | Research |
|-----|-----------|----------------------------------------------------------------------|----------|
| No. | No. | | Status |
| 1. | 19PH0521 | CPDP Model Based Novel Approach for Software Defect Prediction | Pursuing |
| 2. | 19PH0503 | GJ Approach for NPC in RPG by Using Q-Learning and Apriori Algorithm | Pursuing |

6. List of Publications

<u>International Journals</u>

2014

- 1. P.Radhika Raju, Dr. A. Ananda Rao, "Optimization of Program Invariants", **ACM SIGSOFT Software Engineering Notes**, Vol. 39, Issue 1, Jan. 2014.
- 2. P.Radhika Raju, Dr. A. Ananda Rao, "A Metrics Suite for Variable Categorization to Support Program Invariants", **International Journal of Software Engineering & Applications** (**IJSEA**), Vol. 5, No.5, September 2014, pp. 65-83.

<u>2016</u>

- 1. Dr. P. Radhika Raju, et.al, "Development of Service Oriented Situational Web Applications using Knowledge Discovery", In IJARCSSE (International Journal of Advanced Research in Computer science and Software Engineering). Volume 6, Issue 9, sep-2016, (UGC APPROVED AND THOMSON REUTERS INDEXED).
- 2. Dr. P. Radhika Raju, et.al, "Ensemble Pruning of Internet Traffic Classifiers for Security Applications", In SAJET (South Asian Journal of Engineering and Technology). Vol.2, No.29 (2016) 4–8, , (UGC APPROVED and SIS, ICI, DOAJ INDEXED).
- 3. Dr. P. Radhika Raju, et.al," Detection of Code-Smells by Using Particle Swarm Optimization Technique (PSO)", In SAJET (South Asian Journal of Engineering and Technology). Vol.2, No.28 (2016) 10–13, (UGC APPROVED and SIS, ICI, DOAJ INDEXED).
- 4. Dr. P. Radhika Raju, et.al," Automation of Test Knowledge Reconfiguration for Web Services", In SAJET (South Asian Journal of Engineering and Technology). Vol.2, No.2 (2016) 1–4, (UGC APPROVED and SIS, ICI, DOAJ INDEXED).

2017

 Dr. P. Radhika Raju, et.al, "Enhancing the Performance of Coverage-Based Techniques in Test Case Prioritization", In IJSRCSEIT (International Journal of Scientific Research in Computer Science, Engineering and Information Technology, Volume 2, Issue 5, ISSN: 2456-3307-2017, (UGC APPROVED JOURNAL AND ISI(THOMAS REUTERS) INDEXED). 2. Dr. P. Radhika Raju, et.al, "An Objective Based Approach to Bug Report Summarization", In SAJET (South Asian Journal of Engineering and Technology), Vol.2, No.6, ISSN Number (online): 2454-9614,2017, (UGC APPROVED and SIS, ICI, DOAJ INDEXED).

<u>2018</u>

- Dr. P. Radhika Raju, et.al, "Data Locality Aware Job Scheduling for Improving Performance of MapReduce", In IJCTT (International Journals of Computer Trends and Technology) Jul 2018, Volume 61, No.1, (UGC APPROVED AND THOMSON REUTERS).
- 2. Dr. P. Radhika Raju, et.al, "Relevant Keyword Search for Building Service-Based System", In IJCSE (International Journals of Computer Science and Engineering) Volume 6, Issue.7,pp.111-116,2018, (UGC APPROVED and INDEXED WITH DOI, ICI and APPROVED, DPI Digital Library).
- 3. Dr. P. Radhika Raju, et.al, "Partitional Based Clustering Algorithms on Big Data using Apache Spark", In IJSRCSEIT (International Journals of Scientific Research in Computer Science, Engineering and Information Technology). Volume 3. Issue 5, May-06-2018, (UGC APPROVED JOURNAL AND ISI(THOMAS REUTERS) INDEXED).

2019

- Dr. P. Radhika Raju, et.al, "Automated Test Case Generation in Entity Reconciliation Applications", In IJAEMA (The International Journal of Analytical and Experimental Modal Analysis) August 2019, Volume XI, (UGC CARE GROUP A JOURNAL AND ISI INDEXING).
- Dr. P. Radhika Raju, et.al, "Improving Efficiency of Quality Correlation in Query Using Spark", In IJSRCSEIT (International Journal of Scientific Research in Computer Science, Engineering and Information Technology) July 2019, (UGC APPROVED AND THOMSON REUTERUS INDEXING).

- 3. Dr. P. Radhika Raju, et.al, "Reduction of Search Space in RESTful Service Discovery", In IJRCSEIT (International Journal of Scientific Research in Computer Science, Engineering and Information Technology) July 2019, (UGC APPROVED AND THOMSON REUTERUS INDEXING).
- 4. Dr. P. Radhika Raju, et.al, "A Test Case Generation for Boolean Expressions by Using Set and Cell Covering", In IJAEMA (The International Journal of Analytical and Experimental Modal Analysis) August 2019, (UGC CARE GROUP A JOURNAL OAND ISI INDEXING).
- Dr. P. Radhika Raju, et.al, "Trust Value Calculation for Cloud Resources", In IRJET (International Research Journal of Engineering and Technology) July 2019, (UGC APPROVED AND THOMSON REUTERUS INDEXING).
- 6. Dr. P. Radhika Raju, et.al, "Improving the Quality of Recovered Architectures Using Weighted Dependencies", In IJAEMA (The International Journal of Analytical and Experimental Modal Analysis) August 2019, (UGC CARE GROUP A JOURNAL AND ISI INDEXING).

2020

 Dr. P. Radhika Raju, et.al, "System Architecture and Development using Spark for Effective Resource Management in NAWEC Ltd., The Gambia", In IJAEMA (The International Journal of Analytical and Experimental Modal Analysis) June 2020, (UGC CARE GROUP A JOURNAL AND ISI INDEXING).

2021

 Dr. P. Radhika Raju, et.al, "Enhancing Automated Testing Efficiency Using Code Based Features", In IJAEMA (The International Journal of Analytical and Experimental Modal Analysis) February 2021, (UGC CARE GROUP II JOURNAL AND SCOPUS INDEXING).

- 2. Dr. P. Radhika Raju, et.al, "Improvising Container Scheduling Using Genetic Algorithm", In IJFGN (International Journal of Future Generation Communication and Networking) March 2021, (UGC CARE GROUP II JOURNAL AND WEB OF SCIENCE).
- **3.** Dr. P. Radhika Raju, et.al, "Integrating MAPT and RAPT for improving Adaptive Partition Testing Performance", In IJAEMA (The International Journal of Analytical and Experimental Modal Analysis) February 2021, (UGC CARE GROUP II JOURNAL AND SCOPUS INDEXING).
- **4.** Dr. P. Radhika Raju, et.al, "Finding Design Faults in SPARK Applications using Automatic Testing Techniques", In IJAEMA (The International Journal of Analytical and Experimental Modal Analysis) August 2021, (UGC CARE GROUP II JOURNAL AND SCOPUS INDEXING).

National Conferences

 P. Radhika Raju and A. Ananda Rao, "Categorization of Program Invariants to Support Software Evolution" at the National Conference on Software Engineering (NCSOFT-13), Cochin University of Science and Technology, Cochin, India, 13-14 August, 2013.

International Conferences

2009

 Smt. P. Radhika Raju, Dr.A. Ananda Rao, "An Efficient Technique for Improving Dynamic program Invariant Detection Tools", An International conference on Operations Research Applications in Engineering and Management (ICOREM), May 27-29, 2009. At ANNA University Tiruchirapalli, Tamilnadu.

2011

Smt. P. Radhika Raju, R. Mary Lilly, "Controlling Model Driven Test Cases Using GUI Feedback", An International Conference on Computational vision and Robotics (ICCVR 2011) 14th – 15thAugust, 2011. Bhubaneswar, Orissa.

<u>2013</u>

1. P.Radhika Raju and A. Ananda Rao, "Technique to Support Dynamic Invariant Detection", **International Conference on Advanced Computing Methodologies** (ICACM-2013), 02-03 August, 2013, GRIET, Hyderabad.

2014

- 1. Smt. P. Radhika Raju, has participated in "India Software Engineering Conference" ISEC'14, 19-21 Feb. 2014, IITM, Chennai.
- 2. Smt. P. Radhika Raju, participated in "International Conference on Software Engineering" 2014 (ICSE 2014) from 31st May to 7th June 2014 at HICC, Hyderabad.

2015

- K. Sandhya, A. Ananda Rao and P.Radhika Raju, "Evaluation of Cost and Effort Indicators for Combined Selection of MBT Techniques", International Conference on Computing (NECICC-2K15), 13-14 August, 2015, NEC, Narasaraopet.
- K.D.Chandran, A. Ananda Rao and P.Radhika Raju, "An Objective Based Approach toBug Report Summarization", International Conference on Computing (NECICC-2K15), 13-14 August, 2015, NEC, Narasaraopet.
- 3. M. Sreenivasulu, A. Ananda Rao and P.Radhika Raju, "Advanced Technology in Kannada to Telugu Translation by Using Transfer Based Method: An Accurate Approach", **International Conference on Computing (NECICC-2K15)**, 13-14 August, 2015, NEC, Narasaraopet.

2016

 Dr. P. Radhika Raju, et.al., "Task Reprocessing on Real-time Multicore Systems", In ICIA (International Conference on Informatics and Analytics). Pondicherry Engineering College, Pondicherry, 25-26 August-2016, (UGC APPROVED AND SCOPUS INDEXED, ESCI).

- Dr. P. Radhika Raju, et.al., "Ensemble Pruning of Internet Traffic Classifiers for Security Applications", International Conference on Computing (NECICC-2K16). NEC, Narasaraopet, 21-22 October, 2016. (UGC APPROVED and SIS, ICI, DOAJ INDEXED).
- 3. Dr. P. Radhika Raju, et.al," Automation of Test Knowledge Reconfiguration for Web Services", International Conference on Computing (NECICC-2K16). NEC, Narasaraopet, 21-22 October, 2016, (UGC APPROVED and SIS, ICI, DOAJ INDEXED).
- Dr. P. Radhika Raju, et.al, "Detection of Code-Smells by Using Swarn Optimization Technique(PSO)", International Conference on Computing (NECICC-2K16), NEC, Narasaraopet, 21-22 October, 2016, (UGC APPROVED and SIS, ICI, DOAJ INDEXED).
- 5. Dr. P. Radhika Raju, et.al, "Strengthening the Proof of Retrievability with Secure Public Auditing in Cloud Computing", 2nd International Conference on Applied Science Engineering and Technology (ICASET-2016). Swetha Institute of Technology and Science Tirupati, 18-19 October, 2016. (UGC APPROVED and SPRINGER PUBLISHER, SCOPUS INDEXED).
- 6. Dr. P. Radhika Raju, et.al," Reinforcement Learning by case based reasoning through self organized neural networks", **International Conference on Advanced Computing and Communications (ICACC-2016)**. Rajagiri School of Engineering & Technology, Kochi, 20-22 October, 2016, (**UGC APPROVED AND SCOPUS INDEXED**).
- Dr. P. Radhika Raju, et.al," XRTSDIC: Towards a Flexible and Scalable Framework for Detecting and Tracking Software Design Inconsistencies", First A.P. Science Congress. IT Computer & Engineering Sciences, 21-23 January, 2016, (GOOGLE SCHOLAR, INDEXED).

<u>2018</u>

Dr. P. Radhika Raju, et.al, "Experimental Evaluation of Task Reprocessing on Large-Medium Scale Multicore Systems", In ICIIC (International Conference on Integrated Intelligent Computing, Communication & Security).SJB Institute of Technology, Published by AISC Series of (UGC APPROVED AND SPRINGER, Indexed in SCOPUS, DBLP), Bangalore, India (Jan-2018).