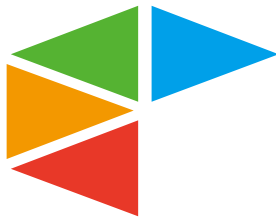


# Academic Profile



Dr. J.V. Bibal Benifa  
Assistant Professor

Indian Institute of Information Technology, Kottayam





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# Academic Qualifications

- **Ph.D., – Information and Communication Engineering,**  
from Anna University, Chennai, July 2018  
*(Specialization- Cloud Computing and data analytics)*
- **Thesis Title:** Automated Frameworks for Performance Improvement of MapReduce and Resource Auto-Scaling Services in Cloud Environment
- **M.E., - Software Engineering,**  
Anna University, Chennai, 2009- 2011,  
*(First Class with Distinction).*
- **B.E., - Computer Science and Engineering,**  
Anna University, Chennai, 2005-2009, *(First Class)*

# Teaching Experience

- **Assistant Professor - Indian Institute of Information Technology, Kottayam, Kerala.**  
(*Grade II*)  
(*July 2019- till date*)
- **Assistant Professor-** Noorul Islam Centre for Higher Education (Deemed-to-be-University), Tamil Nadu, India.  
(*August 2018- June 2019*)
- **Full Time Research Scholar-** Anna University, Chennai.  
(*January 2014- May 2018*)
- **Ad-hoc Faculty** - Anna University, Chennai.  
(*February 2013 – December 2013*)
- **Assistant Professor -** Sri Krishna College of Engineering and Technology, Coimbatore.  
(*May 2011- July 2012*)

# Summary of Research Publications & Highlights

Sl.No	SCI/SCOPUS Indexed Journals/ Conference Proceedings	Total
1.	Research articles published in International Journals	SCI Indexed : 10
		Scopus Indexed: 3
2.	Number of book chapters published	Scopus Indexed:10
3.	Number of of International conference papers	7
4.	Journal Publications –In-progress (Minor Revisions Submitted)	SCI Indexed : 7
5.	Journal Preprints	2
6.	Conference Papers (Accepted for forthcoming)	3

- *Serving as a reviewer in ACM, Springer, Elsevier, International Journal of Information Technology (Ministry of Taiwan) Journals.*
- *Involved in multidisciplinary and multi-institutional collaborative research works and publications.*

# List of Papers in SCI Journals (Total: 10)

1. **J. V. Bibal Benifa** and Dejey, 2018, 'A Hybrid Auto-Scaler for resource scaling in cloud environment', Journal of Parallel and Distributed Computing, Elsevier, Doi.org. 10.1016/j.jpdc.2018.04.016.
2. **J. V. Bibal Benifa** and Dejey, 2018, 'Reinforcement learning-based proactive auto-scaler for resource provisioning in cloud environment', **Mobile Networks and Applications, Springer**, Doi.org/10.1007/s11036-018-0996-0.
3. **J. V. Bibal Benifa** and Dejey, 2017, 'An Auto-Scaling Framework for Heterogeneous Hadoop Systems', International Journal of Cooperative Information Systems, World Scientific, Doi.org/10.1142/S0218843017500046.
4. **J. V. Bibal Benifa** and Dejey, 2017, 'Performance Improvement of MapReduce for Heterogeneous Clusters based on Efficient Locality and Replica Aware Scheduling (ELRAS) Strategy', Wireless Personal Communications, Springer, Vol.95 , No. 3, pp. 2709-2733.
5. Bruce Ralphin Rose J, Saranya P and **Bibal Benifa J V**, 2018, 'Investigation of computational flow fields and aero acoustic characteristics over a re-entry command module', IMechE: Part G, Journal of Aerospace Engineering, SAGE Publications, UK, vol. 232, no. 3, pp.532-544.

## Contd...

6. **J.V. Bibal Benifa** and G. Venifa Mini , “Privacy Based Data Publishing Model for Cloud Computing Environment”. *Wireless Personal Communications* (2020), Springer, Doi: 10.1007/s11277-020-07320-3.
7. J. Jeya Praise, R. Joshua Samuel Raj, **J.V. Bibal Benifa**, “Development of Reinforcement Learning and Pattern Matching (RLPM) based firewall for secured cloud infrastructure *Wireless Personal Communications* (2020), Springer, doi:10.1007/s11277-020-07608-4
8. Chola, C., **Benifa, J. V.**, Guru, D. S., Muaad, A. Y., Hanumanthappa, J., Al-antari, M. A., Al Salman, H., & Gumaei, A. H(2022). Gender identification and classification of drosophila melanogaster flies using machine learning techniques. *Computational and Mathematical Methods in Medicine*, 2022, 1-9. <https://doi.org/10.1155/2022/4593330>.
9. L.M. Mestetskiy, D.S. Guru, H.S. Nagendraswamy, **Bibal Benifa J V**, Channa B. Chola, “**Gender identification of Drosophila Melanogaster based on Morphological Analysis of Microscopic Images**, *The Visual Computer, International Journal of Computer Graphics* (Accepted for publication).
10. Abdullah Y. Muaad, J. Hanumanthappa, **J. V. Bibal Benifa**, Amerah Alabrah, Mufeed Ahmed Naji Saif, D. Pushpa, Mugahed A. Al-antari, and Taha M. Alfakih, “Artificial Intelligence-based Approach for Misogyny and Sarcasm Detection from Arabic Texts”, *Computational Intelligence and Neuroscience* (Accepted for publication).

# List of Papers in Scopus Indexed Journals (Total: 3)

1. **J.V. Bibal Benifa**, G. Venifa Mini, “Modified Chebyshev polynomial-based access control mechanism for secured data access in cloud computing environment”. SOCA, Springer, (2020). <https://doi.org/10.1007/s11761-020-00307-9>.
2. Bhargavi M.S., **Bibal Benifa J.V.**, Jaiswal R. (2021) Abnormal Event Detection in Public Places by Deep Learning Methods. In: Sharma H., Saraswat M., Yadav A., Kim J.H., Bansal J.C. (eds). CIS 2020. Adv. in Intelligent Systems and Computing, vol. 1335. Springer, Singapore. [https://doi.org/10.1007/978-981-33-6984-9\\_55](https://doi.org/10.1007/978-981-33-6984-9_55).
3. Bruce Ralphin Rose, Baby Usha S, **Bibal Benifa J V**, (2017), ‘Computational investigation on the effects of two way wing morphing strategy in the critical Mach number’, Journal of Aerospace Technology and Management, Brazil, doi: 10.5028/jatm.v10.825.



# List of Scopus Indexed Book Chapters (Total: 9)

1. **J.V. Bibal Benifa** and G. Venifa Mini , “Trust-Based Chaos Access Control Framework by Neural Network for Cloud Computing Environment”. In: Al-Turjman F. (eds) Trends in Cloud-based IoT, Springer Innovations in Communication and Computing. Springer, Cham, pp.51-72, 2020. DOI: 10.1007/978-3-030-40037-8.
2. **J.V. Bibal Benifa** and G. Venifa Mini, “Segmentation and Classification of Tumor Regions from Brain Magnetic Resonance Images by Neural Network-Based Technique”, In book: Handbook of Artificial Intelligence in Biomedical Engineering, Edition: 1, Chapter: 20, Apple Academic press, Taylor & Francis Group, 2020. ISBN: 9781771889209.
3. **J.V. Bibal Benifa** and Delsey M J, “Recognizing tropical cyclone formation from satellite image data”, Springer book series on ‘Artificial Intelligence and IoT: Smart Convergence for Eco-Friendly Topography’, Springer-Verlag, Germany, Series - 'Studies in Big Data, 2020.
4. **J. V. Bibal Benifa**, Jipsa Philip, Channa Basava Chola, “Detection and classification of brain tumour from MRI images by different classifiers”, Chapter: 7, High-Performance Medical Image Processing", Apple Academic Press, ISBN: 9781774637227, 2021.
5. J. Bruce Ralphin Rose and **J. V. Bibal Benifa**, “Energy Management in Smart Cities by Novel Wind Turbine Configurations”, Handbook of Green Engineering Technologies for Sustainable Smart Cities, Edition: 1, Chapter: 7, CRC Press, Taylor & Francis group, 2021 ISBN: 9780367554989.

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6. **J. V. Bibal Benifa**, G Venifa Mini, K Saravanan, "Blockchain Based Health Care Monitoring for Privacy Preservation of COVID-19 Medical Records",Blockchain for smart cities, Edition: 1, Chapter: 14, Elsevier, <https://doi.org/10.1016/B978-0-12-824446-3.00005-3>, 2021
7. Hanumanthappa J Davanagere, Abdullah Y Muaad, **Bibal Benifa J V**, Channa basava Chola, Vijayalaxmi Hiremath,Pramodha .M, "IoT-Based Smart Diagnosis System for HealthCare", Sustainable Communication Networks and Application, 2021.
8. **Bibal Benifa J.V**, Dinesh Kumar and Bruce Ralphin Rose J, "Prediction of Air Quality Index using machine learning techniques and the study of its influence on the health hazards at urban environment", Computational Intelligence Techniques for Green Smart Cities, Springer 2022.
9. J. Bruce Ralphin Rose, Arulmozhinathan. T, Gopinathan. V T, J. V. Bibal Benifa, IoD enabled swarm of drones for air space control, Internet of Drones: Application , opportunities and Challenges, CRC Press, Taylor & Francis Group, 2022.
- 10.J. Bruce Ralphin Rose, Arulmozhinathan. T, Gopinathan. V T, J. V. Bibal Benifa, Internet of drones: applications, challenges, opportunities, Internet of Drones: Application, opportunities and Challenges, CRC Press, Taylor & Francis Group, 2022.

## List of Conference Publications (Total: 7)

1. Channabasava Chola, Md Belal Bin Heyat, Faijan Akhtar, Omar AlShorman, **J. V. Bibal Benifa**, Abdulla Y Muaad, "IoT Based Intelligent Computer-Aided Diagnosis and Decision Making System for Health Care", The 10th International Conference on Information Technology (ICIT), Amman, Jordan, 2021 (Accepted).
2. Mattaparti Satya Bhargavi, **Bibal Benifa J V** and Rishav Jaiswal, "Abnormal Event Detection in Public Places by Deep Learning Methods", Congress on Intelligent Systems, CIS 2020, Organized by Soft Computing Research Society, 2020.
3. Abdullah Y Muaad, J Hanumanthappa, Mugahed A Al-antari, **Bibal Benifa JV**, Channabasava Chola, "AI-based Misogyny Detection from Arabic Levantine Twitter Tweets", IOCA Proceedings, <https://doi.org/10.3390/xxxxx>, 2021.

## List of Conference Publications (Total: 7)

4. ABDULLAH Y Muaad, Mugahed A. Al-antari, Channabasava Chola, **Bibal Benifa J V**, J Hanumanthappa, "Detection of misogyny from Arabic Levantine Twitter tweets using machine learning techniques", Conference on Algorithms, <https://doi.org/10.3390/IOCA2021-10880>, 2021
5. P. Antony Seba, **J V Bibal Benifa**, V Ramachandran, "Effective Ranking of Feature Selection Algorithms for Medical Data Analytics", International Conference on Business Analytics and Intelligence, IISc Bangalore, 2021.
6. Pramodha M, Abullah Y Muaad, **Benifa Bibal J. V.**, Hanumanthappa J., Channa basava Chola, Mugahed A Al-antari, " A Hybrid Deep Learning Approach for COVID-19 Diagnosis via CT and X-Ray Medical Images", IOCA Proceedings, <https://doi.org/10.3390/xxxxx>, 2021
7. **Bibal Benifa JV** and Raj Kumar N, 'Dynamic de-centralized file replication and polling algorithm for P2P system', National Conference on Recent Advances in Computer vision and Information Technology, Govt. College of Technology, Coimbatore, 07 March 2011.

## Research Projects Completed:

- *Prediction System for identifying Rheumatology based on Siddha Concepts (Project developed for Government Siddha Medical College, Tirunelveli).*

## Ongoing Industry and Research Project

- *Deployment of cloud infrastructure and HPC facility- Architecture design, Sponsored by Panaro Tech Pvt Ltd, Coimbatore (Fund Secured- Rs. 2,40,000)*
- *Medical images and text data analysis using deep learning techniques, National Param Supercomputing Facility*  
*(Infrastructure support- 126 cores for one year from 25th June 2021)*

# On-going Key Research areas

1. Development of analytic models for the **accurate prediction Chronic Kidney Disease stages** (Collaboration: Appollo Hospita ls Madurai)
2. Development of models for **Gender identification of Drosophila Melanogaster** Images (Collaboration: Moscow State University, Russia)
3. Development of models for **sunspots detection, classification and tracking** (Collaboration: Moscow State University, Russia)
4. Development of models for coral reef image classification and disease identification.

# Awards Received

- *Received Editorial Appreciation of 'High Quality publication' from Springer,*
- *Received 'Outstanding Reviewer Award' from Elsevier*
- *Secured 'Best Paper Award' along with cash prize of CFH 250 from an International Conference on Algorithms held at China.*
- *Established a private cloud infrastructure of advanced computing at Noorul Islam Centre for Higher Education (2018-2019).*
- *Established teaching laboratories for Open Source Software during 2011.*

## Invited Talks

1. Resource person for the One day webinar organized by Adama Science and Technology University, (Ministry of Education, Ethiopia) in the topic “Big Data Predictive Analytic Techniques” on 2nd October 2020.
2. Resource person for the One day webinar organized by Anna University “Foundations of Convolutional Neural Network” on 07<sup>th</sup> January 2022.
3. Resource person for the One day webinar titled “Data Science and ML: A learning Journey” organized by IIT Kottayam in the topic “Applications and Overview of Machine Learning Algorithms” on 28<sup>th</sup> July 2020.
4. Resource person for the One day webinar organized by Hindusthan College of Engineering and Technology, Coimbatore, Tamil Nadu in the topic “Research Challenges and Applications in Data Science” on 27<sup>th</sup> August 2020.



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5. *Resource person for the ATAL FDP on “Data Science” hosted by Hindusthan College of Engineering and Technology, Coimbatore, TamilNadu and delivered a session in the topic “Linear and Logistic Regression Model Building”, on 03-11-2020.*
6. *Resource person for the ATAL FDP on “Machine Learning Algorithms and Applications” hosted by IIIT Kottayam and delivered a session in the topic “Linear and Logistic Regression in Machine Learning”, on 05-11-2020.*
7. *Resource person for the ATAL FDP on “Data Science” hosted by IIIT Kottayam and delivered a session in the topic “Linear and Logistic Regression in Machine Learning”, on 29-08-2021.*
8. *Delivered an expert lecture on the topic “Cloud Computing”, at Satyam College of Engineering and Technology, Nagercoil, Tamilnadu on 23rd September 2019.*
9. *Resource Person for the National level workshop on “Cloud Computing and Programming” organized by Noorul Islam Centre for Higher Education, Tamilnadu on 20th January 2020.*

The background features a decorative pattern of hexagons in various shades of blue and grey. The hexagons are arranged in a honeycomb-like structure, with some hexagons being larger and more prominent than others. The colors range from light blue to dark blue, with some grey hexagons interspersed. The overall effect is a clean, modern, and geometric design.

THANK  
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