Curriculum Vitae

Dr. NARASAPURAM PENCHALAIAH,
Associate Professor,
Department of AI&ML,
Annamacharya University,
New Boyanapalli, Rajampet
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Google Scholar: https://scholar.google.com/citations?user=6TpOGJAAAAAJ&hl=en
Scopus: https://www.scopus.com/authid/detail.uri?authorId=57219550718
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Web of Science: Dr NARASAPURAM PENCHALAIAH - Web of Science Researcher Profile
Vidwan Id: https://vidwan.inflibnet.ac.in/profile/237300
INFLIBNET Center: https://shodhganga.inflibnet.ac.in/handle/10603/610627

Educational Qualifications:

- **Ph.D.**, in Computer Science Engineering from **University of Technology, Jaipur, Rajasthan**, India in 2021.
  Title of the Thesis: Design and Development of Efficient Optimized Data Aggregation Approaches for IoT Devices and it's Applications in Smart Agriculture.
  Supervisor: Dr. Badarla Anil, Associate Professor, Department of Computer ScienceEngineering, University of Technology, Jaipur, Rajasthan, India.

- **M.Tech.**, in Computer Science and Engineering from Jawaharlal Nehru TechnologicalUniversity, Moinabad, Hyderabad, Andhra Pradesh, India in **2014 (First Class Distinction).**

- **B.Tech.**, in Computer Science and Engineering from, Jawaharlal Nehru TechnologicalUniversity, Anantapuram, Andhra Pradesh, India in **2009 (First Class Distinction).**

Academic Experience: 12 Years

- **Associate Professor** in Department of **Artificial Intelligence & Machine Learning**, in Annamacharya Institute of Technology and Sciences, Rajampet now it is named as **Annamacharya University** [from **01st July** *2024 to Till Date*]

- **Associate Professor** in Department of Computer Science and Engineering, in Annamacharya Institute of Technology and Sciences, Rajampet [from **2$2^{mt}$ Dec 2021 to 30th June 2024**]

- **Assistant Professor** in Department of Computer Science and Engineering, in Annamacharya Institute of Technology and Sciences, Rajampet [from **05th Aug 2014 to 21st Dec 2021**]]

- **Assistant Professor** in Department of Computer Science and Engineering, in Annamacharya Institute of Technology and Sciences, Rajampet [from **18th June 2010 to 10th Nov 2011**]]

Subjects Taught

- **B.Tech:** Distributed Data Bases, Computer Graphics, Information Security, Cryptography and Network Security, Web Technologies, Web Programming, Human Computer Interaction, Advanced Computer Architecture, Database Management systems, Wireless Sensor Networks, Mobile Computing, Introduction to C and Data Structures, Problem Solving Techniques and Introduction through C, Internetworking with TCP/IP, Distributed Systems, Software Engineering, Software Testing Methodology, Internet of Things, Cloud Computing, Python Programming, Data Structures through Python, DevOps, Machine Learning.

- **M.Tech:** Mobile Computing, Distributed Data Bases, Advanced Computer Architecture, Web Technologies, Cryptography and Network Security, Internet of Things and its Applications.

Additional duties/ Responsibilities (Departmental and University)

❖ **Presently acting as a Departmental NBA & NAAC Co-Ordinator, Project Coordinator and University Central Cultural Coordinator.**

❖ Acted as **a Departmental R&D In charge.**

❖ Acted as a **Sports and Games, NSS Program and Industrial Tour in charge in the CSE Department.**

❖ Acted as a **Remote center Co-In charge of IIT BOMBAY, IIT Kharagpur Online FDP's and Workshops.**

❖ Acted as a **Department MOOC's (NPTEL LOCAL CHAPTER) Coordinator.**

❖ Acted as a **Co-Coordinator of ISRO-IIRS Outreach Programme.**

❖ Guided many projects for the B.Tech and M.Tech students in various domains like , Internet of Things, Machine Learning, Cloud Computing, Artificial Intelligence, Data Mining, Network security, Natural Language Processing and Neural Networks.

RESEARCH PUBLICATIONS & ACADEMIC CONTRIBUTIONS

International Journals

1. **N. Penchalaiah, B. Venkatesh, Y. Suresh, L. S. Koneru, M. R. Nuka and J. C. Babu,** "IoT *Intrusion Detection System for Vehicle and Emission Monitoring: Enhancing Cybersecurity in Connected Transportation*," 2024 IEEE 6th International Conference on Cybernetics, Cognition and Machine Learning Applications (ICCCMLA), Hamburg, Germany, 11 February 2025, pp. 328-333, doi: 10.1109/ICCCMLA63077.2024.10871291 https://ieeexplore.ieee.org/abstract/document/10871291

2. **Dr. N. Penchalaiah, Arvind Kumar, Chaithrashree. A, Aravindh Saivaraju, V. Bhoopathy, Anil Kumar Lamba "***Advanced Detection of Cyber-Physical Attacks in Manufacturing using LSTM-KNN***",** 2024 International Conference on Data Science and Network Security (ICDSNS), October 2024**,** ISBN: 979-8-3503-7312-7 doi: 10.1109/ICDSNS62112.2024.10690961, pp-01-07, **https://ieeexplore.ieee.org/abstract/document/10690961/** [Scopus]

3. **Dr. N. Penchalaiah, T.Harikala, D. Sreevidya, Mahanandi .Y. "***Privacy-Preserving Ensemble Methods for Email Spam Detection***",** Journal of Harbin Engineering University, May 2024,Vol.45, Issue 5, ISSN: 1006-7043, pp- 507-517**, https://harbinengineeringjournal.com/index.php/journal/article/view/3075/1910** [Scopus]

4. **Dr. N. Penchalaiah, Vishnu Varma V, Vishnu Vardhan Redddy Putha, Venkata Nagarjuna Reddy M** "*Machine Learning Meets Crime Prevention: A Stacked Generalization Approach for Identifying High-Risk Zones*"**,** e-Prime - Advances in Electrical Engineering, Electronics and Energy, ISSN: 2772-6711, ISBN: 979-8-3503-1755-8, pp-01-08, **https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4783637** https://ssrn.com/abstract=4783637 or http://dx.doi.org/10.2139/ssrn.4783637 **[SSRN]**

5. **Dr. N. Penchalaiah, V Bindhu Reddy, R Harsha Vardhan Reddy, Akileswari and N Anand Raj** "*Hand Gesture Recognition Using CNN*", Advances in Cognitive Science and Communications, Cognitive Science and Technology book series (CSAT) March 2023, ISSN: 2195-3988,ISBN-978-981-19-8085-5,pp-1109-1121, **https://link.springer.com/chapter/10.1007/978-981-19-8086-2_104** [springer].

6. **Dr. N. Penchalaiah, D. Praveen Kumar Reddy, G. N. V. Tharun Yadav, V. Ramesh Kumar Reddy and S. Ram Mohan** "*IoT-Based Air Quality Monitoring System with Server Notification*", Advances in Cognitive Science and Communications, Cognitive Science and Technology book series (CSAT) March 2023,ISSN: 2195-3988, ISBN- 978-981-19-8085-5 pp-1099-1108,**https://link.springer.com/chapter/10.1007/978-981-19-8086-2_103** , **[**springer].

7. **Dr N. Penchalaiah, B. Shanthi, A. Sravani, P. Venkateswarulu, G. Vemalatha, P. Sharan Kumar Naidu**., "*Machine Learning Based Android App Recommendation System*", Dogo Rang sang Research Journal, Feb 2023, Volume 3, Issue 2-01, 09-20, ISSN : 2347-7180 (UGC Care list 1 journal), https://www.journal-dogorangsang.in/no_1_Online_23/2_feb.pdf

8. **M Sreenivasulu, Dr N. Penchalaiah and Dr M Subba Rao,** "*Fuzzy Deep Neural Network-Based Novel Feature Selection for Attack Detection in Big Data Environment*"**,** IJFANS International Journal of Food And Nutritional Sciences, ISSN: 2319 1775, Vol. 11, Issue 12, Dec 2022, pp- 14856-14871, https://www.ijfans.org/uploads/paper/ebb3c315b9d6c29cc86f722f0b00c8ed.pdf [UGC]

9. **E Ramesh, Dr N. Penchalaiah and Dr P Phanindra Kumar Reddy,** "*A Comprehensive Survey on Rice Leaf and Seedling Disease Detection Systems*"**,** IJFANS International Journal of Food And Nutritional Sciences, ISSN: 2319 1775, Vol. 11, Issue 12, Dec 2022, pp- 14841-14855, https://www.ijfans.org/uploads/paper/b1164983c0fc95b2735a9f83ea2bd6b3.pdf [UGC]

10. **Dr. N. Penchalaiah, M. Swarna Latha Dr. L. Kartheesan, Dr. J. Krishna, K.B. Kavya Sree "DeepLung: Harnessing CNNs for Accurate Lung Cancer Prediction",** IJFANS International Journal of Food and Nutritional Sciences, ISSN: 2319 1775, Vol. 11, Issue 12, Dec 2022, pp- 15019- 15035, https://ijfans.org/issue-content/deeplung-harnessing-cnns-for-accurate-lung-cancer-prediction-7093 [UGC]

11. **Dr. N. Penchalaiah, N. Lakshmi Durga, G. Sruthi, N. Hari Prathap, B. Jaswanth Reddy**, "*Covert Channel detection in Wireless Sensor Network*" , Dogo Rangsang Research Journal, Dec 2022, Volume 12, Issue 12-01, ISSN : 2347-7180 pp-211-218(UGC Care list 1 journal). https://www.journal-dogorangsang.in/no_2_Online_22/99_dec.pdf

12. **Dr M Subba Rao, Kethireddy Anusha and Dr N. Penchalaiah, "***Analysis Of Medical Image Data By Deep Convolution Techniques And Kernel Density Estimation*"**,** An Interdisciplinary Journal of Nuero science and Quantum Physics, Neuro Quantology https://www.neuroquantology.com/article.php?id=7580, ISSN: 1303-5150, DOI:10.14704/nq.2022.20.11.NQ66257, September 2022, Vol 20 Issue 11, pp-2565-2574. {Scopus Indexed}

13. **N. Penchalaiah , Abeer S. Al-Humaimeedy , Mashael Maashi , J. Chinna Babu, Osamah Ibrahim Khalaf and Theyazn H. H. Aldhyani,** " *Clustered Single-Board Devices with Docker Container Big Stream Processing Architecture*", Computers, Materials & Continua: CMC, July 2022, volume 73, Issue 3, 5349-5365, https://techscience.com/cmc/v73n3/49039, https://doi.org/10.32604/cmc.2022.029639 (SCI).

14. **B Ida Seraphim, E Poovammal, Kadiyala Ramana, Natalia Kryvinska and N Penchalaiah,** "*A hybrid network intrusion detection using darwinian particle swarm optimization and stacked autoencoder hoeffding tree*", Article in Mathematical biosciences and engineering: MBE · September 2021, Volume 18, Issue 6, 8024–8044. https://www.aimspress.com/article/doi/10.3934/mbe.2021398, doi:10.3934/mbe.2021398 (SCI).

15. **N Penchalaiah, M. Susmitha, C. Vinay Kumar Reddy, D. V. Pavan Kalyan Rao and D. Sreelekha, "An IoT Based Smart Wearable Device for Women Safety",** *International Research Journal on Advanced Science Hub, Special Issue ICITCA-2021 5S, May 2021,* https://rspsciencehub.com/index.php/journal/article/view/462/403

16. **N Penchalaiah, B Anil; emmanuel, Jaladanki Nelson,**" *Systematic swarm process statistics aggregation as concerns IoT Implement and endemic relevance prevailing in agriculture*", International journal of advances in arts, sciences and engineering, Vol 8, Issue 17,Dec 2020 1011-1020, ISSN :2320-6144 https://joill.in/ijoaase.com/archives.html (UGC).

17. **N Penchalaiah, B Anil, "***An Observation Analyzing situated on Agronomy Production scheme employing IoT in the process of comprehensive Technology***",** International journal of advances in arts, sciences and engineering, volume 7, Issue 14, Jan 2019, 1303-1309, ISSN :2320-6144 , https://joill.in/ijoaase.com/archives.html (UGC).

18. **N Penchalaiah, Jaladanki Nelson Emmanuel, S Suraj Kamal and C V Lakshmi Narayana,** *"IoT based Smart Farming using Thingspeak and MATLAB"***,** ICCCE (3rd International Conference on Communications and Cyber Physical Engineering) 2020, **Lecture Notes in Electrical Engineering, vol 698. Springer, Singapore,** Volume 698, (https://doi.org/10.1007/978-981-15-7961-5_117), ISSN: 1876-1100 October 2020. pp-1273-1295, ISBN 978-981-15-7961-5 [Spinger]
https://link.springer.com/chapter/10.1007/978-981-15-7961-5_117

19. **N Penchalaiah, Jaladanki Nelson Emmanuel, S Suraj Kamal and Dr. Kadiyala Ramana,** *"IoT based Automatic Irrigation System using Wireless Sensor Networks"***,** ICCCE (3rd International Conference on Communications and Cyber Physical Engineering) 2020**, Lecture Notes in Electrical Engineering, vol 698. Springer, Singapore**, Volume 698, https://doi.org/10.1007/978-981-15-7961-5_116), October 2020, ISSN: 1876-1100, pp- 1255-1272, ISBN 978- 981-15-7961-5 [Spinger].
https://link.springer.com/chapter/10.1007/978-981-15-7961-5_116

20. **S Suraj Kamal, N Penchalaiah and Dr. Kadiyala Ramana,** *"Control Toxic Waste by Using Wireless Sensors, Arduino and Connecting Chip"***,** Journal of Interdisciplinary Cycle Research, Volume XII, Issue V, May2020, DOI:18.0002.JICR.2020.V12I5.008301.3170887 ,(http://www.jicrjournal.com/gallery/131-jicr-may-2746.pdf), PP- 1184-1190, ISSN 0022-1945, {UGC CARE}.

21. **B Venkata Shivaiah, B Naveen Kumar and N Penchalaiah,** *"ARDIOT: Arduino IoT based Advanced Irrigation"***,** Journal of Interdisciplinary Cycle Research, Volume XII, Issue IV, April 2020,DOI:18.0002.JICR.2020.V12I4.008301.3170788,(https://app.box.com/s/68jyqqr6dknp ni0digaiiwzr807gwvwd), PP- 290-304, ISSN 0022-1945 {UGC CARE}.

22. **J Kalyani, V Monica and N Penchalaiah,** *"A Novel Method for the Identification of Phishing Web Sites and Secure Transaction"*, International Journal of Analytical and Experimental Model, Volume XII, Issue IV, April 2020, DOI:18.0002.IJAEMA.2020.V12I3.200001.0156329, (https://app.box.com/s/44lr0qyviyv7rnxq3260dnuuew4cqdmb), pp- 272-280, ISSN:0886-9367{UGC CARE}.

23. **N Penchalaiah, S Suraj Kamal, and M Rajesh,** *"Energy Efficient Communication Approach Towards the Green IoT"*, Journal of Information and computational Science, Volume 10, Issue 4, April 2020, DOI:10.12733.JICS.2020.V10I4.535569.12215 (http://www.joics.org/gallery/ics-2890.pdf), pp- 116-127, ISSN 1548-7741{UGC CARE}.

24. **N Penchalaiah, D Pavithra, P Bhargavi, D P Madhuri, K Eliya Shaik and S M D Sohaib,** *"Smart Irrigation and Crop Protection from Wild Animals"*, Journal of Engineering Sciences, Volume 11, Issue 4, April 2020, DOI:10.15433.JES.2020.V11I04.43P.126 (https://jespublication.com/upload/2020-1104126.pdf), pp- 950-954, ISSN 0377-9254 {UGC CARE}.

25. **N Penchalaiah, Jaladanki Nelson Emmanuel, S Suraj Kamal and C V Lakshmi Narayana,** *"IoT Based Smart Farming: Applications, Technologies and Future Vision"*, International Journal of Recent Technology and Engineering, Volume 8, Issue 4, November 2019,DOI:10.35940/ijrte.D8826.118419,(https://www.ijrte.org/wpcontent/uploads/papers/v8i4/D8826118419.pdf), pp- 6129-6134, ISSN 2277-3878 {Scopus Indexed}. IF-5.92

26. **C V Lakshmi Narayana, N Penchalaiah and S Suraj Kamal** *"IoT Based Smart Health Monitoring and Management with Cloud-Based processing", Int*ernational Journal of Management Technology and Engineering, DOI:16.10089.IJMTE.2019.V9I01.18.27477,(http://www.ijamtes.org/gallery/78-jan19.pdf), pp-653-668, ISSN 2249-7455, vol. IX, IssueI, January 2019, IF 6.3.

27. **R Rana Prathap, B Sunil Kumar and N Penchalaiah** *"Distributed Load Balancing Algorithm for Wireless Sensor Networks", Int*ernational Journal of Management Technology and Engineering,DOI:16.10089.IJMTE.2019.V9I01.18.27447,(http://www.ijamtes.org/gallery/48.%20jan%2019ijamte%20-%20cw.pdf), pp- 389-398, ISSN 2249-7455, vol. IX, Issue I, January 2019, IF 6.3.

28. **R Rana Prathap, C Suguna Devi and N Penchalaiah,** *"Security and power Management for Ethernet- Based Smart Home Framework Through IoT, Int*ernational Journal of Engineering Research, (https://www.ijer.in/publication/v8/005.pdf), pp- 018-022, ISSN 2319-6892, vol. 8, Issue Special 1, March 2019.

29. **T N Ranganadham, N Penchalaiah and R Rana Prathap** *"Protected Information Recovery for Decentralized Detection in Wireless Sensor Networks"*, International Journal of Management Technology and Engineering, (http://www.ijamtes.org/gallery/198.oct%20ijmte%20-%20cw.pdf), pp-1444-1453, ISSN 2249-7455, vol. 8, Issue X, October 2018, IF 6.3.

30. **N Penchalaiah, K Venkata Ramana and P Prabhakaran** *"IoT enabled Intelligence Health Survieillance system"*, International Journal of Research and Analytics Reviews, (http://www.ijrar.org/IJRAR19D1212.pdf), pp-431-436, vol. 5, Issue 1, ISSN 2349-5138,March 2018. https://www.ijrar.org/viewfull.php?&p_id=IJRAR19D1212

31. **N Penchalaiah ,B Anil and Jaladanki Nelson Emmanuel**, *"A exploration wrapping leaning on smart agronomics proving Internet of Things"*, International journal of advances in arts, sciences and engineering, Volume 6, Issue 13,July 2018, 1342-1345, ISSN :2320-6144https://joill.in/ijoaase.com/archives.html (UGC).

32. **N Penchalaiah ,B Anil and Jaladanki Nelson Emmanuel, "***E-Agriculture Proving Internet of Things***", International journal of advances in arts, sciences and engineering, Volume 6, Issue 12, Jan 2018, 1423-1426, ISSN :2320-6144 https://joill.in/ijoaase.com/archives.html (UGC).

33. **N.Penchalaiah, Sreenivasulu Manda and M.Chandra Nayak, "***Efficient Management of Electricity Using Internet of Things***", International Journal of Emerging Technologies and Innovative Research (www.jetir.org), (http://www.jetir.org/papers/JETIR1703057.pdf) , ISSN:2349-5162, Vol.4, Issue 3, page no.291-295, March-2017.

34. ***J Maruthi Nagendra Prasad, N Penchalaiah* "***Securing User Location in Geo Social Networking Using Coordinate Conversions***", International Journal of Computer Science and InformationTechnologies,(http://ijcsit.com/docs/Volume%205/vol5issue06/ijcsit20140506 122.pdf), pp- 7460- 7466, ISSN 0975-9646, Vol. 5, Issue 6, March 2014.

35. **N Penchalaiah, A Siva Kumar, G Jacob Jaya Raj "***An effective design of processing Query related to broadcast environment***", IJRRECS-International Journal of Reviews on Recent Electronics and Computer Science, pp-591-594, ISSN 2321-5461, Vol. ,1 Issue 5, September 2013.

International Conferences

1. **N. Penchalaiah**, "***Skin Condition Recognition Through Deep Learning: A RESNET50 Implementation***", International conference on Innovative Materials and Smart Solutions for Sustainability (ICIMSSS`24), K S R College of Engineering Namakkal,2024 Taminadu Link: https://drive.google.com/file/d/14crB1aII_tEvx6BGYZUQO4nyQjgYL7Mj/view?usp=drive_li nk

2. **N. Penchalaiah**, "***IOT Enabled Smart Care System for Automated Leaf Detection and Health Diagnosis***", International conference on Innovative Materials and Smart Solutions for Sustainability (ICIMSSS`24), K S R College of Engineering Namakkal, Taminadu, 2024. Link: https://drive.google.com/file/d/15gglPK778KL1ZycrLQJfne3t-57F7Ocb/view?usp=drive_link

3. **N. Penchalaiah**, "***IOT Intrusion Detection System for Vehicle and Emission Monitoring: Enhancing Cyber Security in Connected Transportation***", 6th International Conference on Cybernetics, Cognition and Machine Learning Applications (ICCMLA-2024), CMR Engineering College, Hyderabad, November 18th, 2024.

4. **N. Penchalaiah, "***Advanced Detection of Cyber-Physical Attacks in Manufacturing using LSTM-KNN***", 2024 International Conference on Data Science and Network Security (ICDSNS), Kalpataru Institute of Technology, Tiptur, 26th -27th July 2024.

5. **N Penchalaiah**, "***Transformative Road Safety: Machine Learning Powered Prediction and Prevention of Road accidents***", 2024 IEEE International Conference on Recent Innovation in Smart and Sustainable Technology", head at Presidency University, Bangalore, March 15-16, 2024.

6. **N Penchalaiah,** "***Pattern Recognition Issues and Pre-Processing Data Issues for Web Information Retrieval Algorithms: Review***", 4th International Conference on Computational Intelligence & Internet of Things ICCIIoT, 2023, At the Faculty of ICT, University of Malta, 4th to 6th December 2023.

7. **N Penchalaiah,** "***Hand gesture Recognition using CNN***", International conference on Communications and Cyber-Physical Engineering (ICCCE-2022), April 2022.

8. **N Penchalaiah,** "***IOT Based air Quality Monitoring System with Server Notification***", International conference on Communications and Cyber-Physical Engineering (ICCCE-2022), April 2022.

9. **N Penchalaiah,** "*An IoT Based Smart Wearable Device for Women Safety*", First International Conference on Information Technology, Computing & Applications (ICITCA 2021), May 2021.

10. **N Penchalaiah, Jaladanki Nelson Emmanuel, S Suraj Kamal and C V Lakshmi Narayana,** *"IoT based Smart Farming using Thingspeak and MATLAB",* 2nd International Conference on Advances in Computing and Communication Technologies (ICACCT-2019), December 2019.

11. **N Penchalaiah, Jaladanki Nelson Emmanuel, S Suraj Kamal and Dr. Kadiyala Ramana,** *"IoT based Automatic Irrigation System using Wireless Sensor Networks",* 2nd International Conference on Advances in Computing and Communication Technologies (ICACCT-2019), December 2019.

12. **R Rana Prathap, N Penchalaiah and B Sunil Kumar** "*Distributed Load Balancing Algorithm for Wireless Sensor Networks*", International Conference on Recent Trends in Engineering Science and Management, organized by Mahratta Chamber of Commerce, Industries and Agriculture Tilak Road, Pune (India), 19 January 2019, **(ISBN 978-9-87793-66-8).**

13. **C V Lakshmi Narayana, N Penchalaiah and S Suraj Kamal** "*IoT Based Smart Health Monitoring and Management with Cloud-Based processing*", International Conference on RecentTrends in Engineering Science and Management, organized by Mahratta Chamber of Commerce, Industries and Agriculture Tilak Road, Pune (India), 19 January 2019, **(ISBN 978-9-87793-66-8).**

14. **T N Ranganadham, N Penchalaiah and R Rana Prathap** "*Protected Information Recovery for Decentralized Detection in Wireless Sensor Networks*", International Conference on Recent Trends in Engineering Science and Management, organized by Osmania University Campus, Hyderabad, 20 October 2018.

National conferences

1. **N Penchalaiah,**"*Data-Driven Crime Prediction: A Stacked Generalization Analysis*", **National conference on Smart Electronics, Engineering the Future of Intelligence (NC'SEFI-2024)** *organized by Annamacharya Institute of Technology and Sciences, Rajampet, 20th April 2024.*

2. **N Penchalaiah,**" *Predictive Analytics and Intervention Strategies for Enhanced Road Safety*", **National conference on Smart Electronics, Engineering the Future of Intelligence (NC'SEFI-2024)** *organized by Annamacharya Institute of Technology and Sciences, Rajampet, 20th April 2024.*

3. **N Penchalaiah**, **K. Manasa, K. Madhuvani** "*IoT Based Automatic Parking System Using RFID*", *National conference on emerging trends in information, management and engineering sciences- NC'e-TIMES #1.0, organized by Annamacharya Institute of Technology and Sciences, Rajampet. 14th to 15th March 2018.* **(ISBN: 978-1-4276-5484-7)**

4. **R Rana Prathap, C Suguna Devi and N Penchalaiah,** "*Security and power Management for Ethernet- Based Smart Home Framework Through IoT*", National Conference on Emerging Trends in Information, Digital and Embedded Systems", NC'e-TIDES-19, organized by Annamacharya Institute of Technology and Sciences, Rajampet., 13 to 14 March 2019. **(ISBN:** 978-1-5386-8486-3**)**

Book/Book Chapter Published

1. Editorial Board Member for the Book Titled on **"Futuristic Trends in IOT",** by Selfypage Developers Pvt Ltd, IIP Iterative International Publishers in 2024 ISBN: 978-93-6252-786-8, Volume 3, Book 5, IIP Series, pages:01-282 on 30-04-2024 link: https://iipbooks.com/admin/ebook/demo_book/251220240921425IOFRONT-merged.pdf

2. Published a book Titled on **"Internet of Things (IOT) Systems by** Sciro International Publishers in 2024 ISBN: 978-93-341-4567-2, Pages: 01-153 Link: https://sciro.co.in/book-store-2 /"

3. Published a Book Chapter on **"User Experience Design in 5G and IoT Enabling Seamless Interactions and Personalized Services in a Connected Environment"** in Book Titled on **" 5G and IoT for Next Generation Connectivity through Enhanced Network Performance and Seamless Integration" by** RADemics Research Institute ISBN13: 8197933634 | ISBN10: 9788197933639 Link: https://www.rademics.com/chapter.php?id=30&cid=14

Faculty Development Programmes / Workshops Attended

Twelve Week

1. Twelve Weeks International MOOCs NPTEL-AICTE approved Faculty Development Programme on "Introduction to Internet of Things" organized by, Prof. Andrew Thangaraj, NPTEL Coordinator, IIT Madras, Jan- Apr 2019.

Eight Week

2. Eight Weeks Faculty Development Programme on Advanced Web Technologies & PHP, organized by APSSDC, from 14th Oct 2015 to 12th Dec 2015.

Two Week

3. A Two-week Online Faculty Development Programme on "E-Learning Resource Creation- A Beginning Towards New Era of E-Learning" conducted by D.Y. Patel College of Engineering and Technology, Kolhapur, Maharashtra, from 08th June – 20th June 2020.

4. A Two-week Online Faculty Development Programme on "Internet of Things (IoT)" conducted by APSSDC, Vijayawada, from 15th June – 27th June 2020.

5. A Two-week Webinar on "Humanitarian Technologies" organized by IEEE Hyderabad Section, 13th –23rd April 2020.

6. A Two-week AICTE approved Faculty Development Programme on "Pedagogy for Online and Blended Teaching-Learning Process (FDP201X)" conducted by IIT, Bombay from 3rd May 2018 to 30th May 2018.

7. A Two-week AICTE approved Faculty Development Programme on "Foundation Program in ICT for Education (FDP101X)" conducted by IIT, Bombay from 03rd Aug 2017 to 07th Sep 2017.

8. A Two-week AICTE approved Faculty Development Programme on "Technical Communication" conducted by IIT, Bombay from 08th Oct 2015 to 11th Nov 2015.

9. A Two-week AICTE approved Faculty Development Programme on "WHS791x: Technical Communication for Scientists and Engineers (STTP on Technical Communication from the T10kT project of NMEICT (MHRD)" conducted by IIT, Bombay from 8 October to 18 November 2015.

Three Week

1. A Three- Weeks Online Faculty Development Program on "AWS Cloud Computing Service", Conducted by Department of CSE, AITS, Rajampet from 09-09-2024 to 28-09-2024.

One Week

1. One Week Faculty Development Program on "AI Application in Banking and Healthcare Industry", organized by CBIT, Hyderabad from 12-12-2024 to 18-12-2024.

2. One Week International Faculty Development Program on "Gen-AI and Prompt Engineering Using Microsoft Co-Pilot", organized by Marwadi University Rajkot, Gujarat, from 16-09-2024 to 20-09-2024.

3. One Week International Faculty Development Program on "Ethical Issues in Research Writing", organized by University of Technology, Jaipur from 11-09-2024 to 16-09-2024.

4. Acted as a Resource person for the Six Days Workshop on "TechPharm Rx", organized by Annamacharya College of Pharmacy, Rajampet from 28-08-2023 to 02-09-2023.

5. One Week International Workshop on "Technical Writing using Latex", organized by VIT-AP University, Amaravati from 30-03-2023 to 05-04-2023.

6. One Week online Workshop on "Machine Learning and its applications" organized by National Institute of Technical Teachers Training and Research, Kolkata, 27 December 2021 to 31 December 2021.

7. One Week online Workshop on "Trending Technologies in Computer Science" organized by Dr. MGR Educational and Research Institute, Madura oval, Chennai, 18 Oct 2021 to 22 Oct 2021.

8. One Week online Workshop on "Precision Health Technology (FDPPHT-2021)" organized by National Institute of Technology, Madura oval, Jamshedpur, 04 August 2021 to 08 August 2021.

9. One Week online Workshop on "AI: Theory and Applications" organized by Kamala Nehru Institute of Technology, Uttarpradesh, 25 July 2020 to 29 July 2020.

10. One Week online Workshop on "Machine Learning and Its Applications" organized by Rc patel of Technology, Maharastra, 4 March 2020 to 10 March 2020.

11. One Week online Faculty Development Program on "Acquisition of Programming Knowledge for the Aspiring Engineers" organized by REVA university, Bangalore, 03rd August-07th August 2020.

12. One Week online Faculty Development Program on "AI and Data Analytics for Automation" organized by Karunya Institute of Technology and Sciences, Tamilnadu, 27th July-31st July 2020

13. One Week Workshop on "AI: Theory and Application" organized by State Project Implementation Unit, Uttar Pradesh, 25th July-29th July 2020

14. One Week online Faculty Development Program on "AI and Data Science" organized by JSPM'S Rajarshi Shahu College of Engineering, Pune, 22nd July-26th July 2020.

15. One Week online Faculty Development Program on "AI Applications through Machine Learning" organized by Balaji Institute of Technology and Science, Warangal, 14th July-18th July 2020

16. One Week online Faculty Development Program on "Block Chain Technology" organized by APSSDC, Vijayawada, 13th July-17th July 2020

17. One Week Online Faculty Development Programme on "Recent Trends in Computer Science" organized RGMCET, Nandyal,30th June-4th July 2020.

18. One Week Online Faculty Development Programme on "Emerging Trends in Computer Science and Information Technology" organized KPRIT, Hyderabad,29th June-4th July 2020

19. One Week Online Faculty Development Programme on "Python for Data Science" organized MITS, Madanapalle,24th June-28th June 2020.

20. One Week Online Faculty Development Programme on "Cyber Security" organized Shreyas Institute of Engineering and Technology, Hyderabad,19th June-24th June 2020

21. One Week Online Faculty Development Programme on "ESIM" organized G H Patel College of Engineering and Technology, Vallabh Vidyanagar,15th June-20th June 2020

22. One Week Online Faculty Development Programme on "Big Data Management-An End to End Perspective" organized M S Ramaiah Institute of Technology, Bangalore,15th June-19th June 2020

23. One Week Online Faculty Development Programme on "Digital Learning with Multi-Disciplinary Approaches" organized JSS Academy of Technical Education, Noida,12th June-17th June 2020

24. One Week Online Faculty Development Programme on "Course Structuring, Teaching and Evaluation in HEI as per OBE" organized Malla Reddy College of Engineering, Secunderabad,11th June-17th June 2020

25. One Week Online Faculty Development Programme on "PERL Scripting" organized Lords Institute of Engineering and Technology, Hyderabad,10th June-14th June 2020

26. One Week Online Faculty Development Programme on "Recent Trends in Computing" organized Nalla Malla Reddy Engineering College, Hyderabad,4th June-10th June 2020

27. One Week Online Faculty Development Programme on "NBA and NAAC Accreditation Process" organized MS Ramaiah Institute of Technology, Bangalore, 4th June-8th June 2020.

28. One Week Online Faculty Development Programme on "Cyber Security" organized Bapatla Engineering College, Bapatla, 2nd June-6th June 2020.

29. One Week Online Faculty Development Programme on "Python Web Application Framework with Flask and Django" organized Pragati Engineering College, Surampalem , 1st June-6th June 2020.

30. One Week Online Faculty Development Programme on "IoT Applications" organized Vikas Group of Institutions, Vijayawada, 1st June-5th June 2020.

31. One Week Workshop on "E-Symposium: Global pandemic Outbreak: Role of Technology and Automation" organized by JSS Academy of Technical Education, Noida, 1st -5th June 2020.

32. One Week Workshop on "Operations Research for Industry and Community Development" organized by Besant Theosophical College, Madanapalle, 27th May -02nd June 2020.

33. One Week Webinar on "Digital Learning" organized by Dr. NGPIT Tamilnadu, 14th -25th May 2020.

34. One Week Online Faculty Development Programme on "Python (Django and Flask), Python for Data Science and Cyber Security" organized Chadalawada Ramanamma Engineering College, Tirupati, 21st -27th May 2020.

35. One Week Online Faculty Development Programme on "Impact of IoT in Society" organized AITS RAJAMPET, 22nd -29th May 2020.

36. One Week Online Faculty Development Programme on "R Programming" organized Sree Vidyanekethan Engineering College, Tirupati, 25th -29th May 2020.

37. One Week Online Faculty Development Programme on "Artificial Intelligence" organized by Vignana Bharathi Engineering College, Telangana, 22nd -26th May 2020.

38. One Week Online Faculty Development Programme on "Python Programming" organized by Sona College, Salem, 18th -22nd May 2020.

39. One Week Online Faculty Development Programme on "ICT TOOLS: Moodle LMS, Python, Latex, Arduino, R Programming and Scilab" organized by Sree VidyanekethanEngineering College, Tirupati, 11th -16th May 2020.

40. One Week Faculty Development Programme on "Artificial Intelligence with IBM Watson" organized by AITS, Rajampet, 2nd – 7th December 2019.

41. One Week Workshop on "Internet of Things" organized by IIT Warangal, 04th -09th June 2016.

42. One Week Workshop on "IBM BLUEMIX- Certification of Enablement" organized byAITS Rajampet, 21st -26th 2016.

43. One Week Workshop on "BIG DATA AND ANALYTICS", organized by S V University TIRUPATI 27-30th Nov 2014.

44. One Week Workshop on "Training the Teachers in Communicative English", organized by AITS Rajampet, 19th - 24th Aug 2013.

Four Days

45. A Four-Days Workshop on "LATEX" conducted by MIT College of Railway Engineering and research, Barshi ,14th -17th May 2020.

Three Days

46. A Three Days Workshop on " Data Science &Machine Learning", organized by AITS, Rajampet in collaboration with InfySkill Edu Tech Private Limited form 26-03-2024 to 28-03-2024.

47. A Three Days Workshop on " IOT, Robotics Programming & Drone Technologies", organized by AITS, Rajampet, in association with Print 3D Technologies, Tirupati from 15-02-2024 to 17-02-2024.

48. A Three-Days Online Faculty Development Programme on "IoT and Its Applications conducted by MITS, Madanapalle, 12th -14th June 2020.

49. A Three-Days Webinar on "Artificial Intelligence and Data Science" conducted by AITS, Rajampet,1 st -3rd June 2020.

50. A Three-Days Workshop on "NAAC Assessment and Accreditation: A Step by Step Process" conducted by GATES Institute of Technology, Ananthapuramu,28th -30th May 2020.

51. A Three-Days Online Faculty Development Programme on "Ethical Hacking and Penetration Testing" conducted by Sri M Visweraya Institute of technology, Bangalore, 28th -30th May 2020.

52. A Three-Days Webinar on "Future Ahead (Smart Metering and Agriculture)" conducted by JSS Academy of Technology Education, Noida, 20th -22nd May 2020.

53. A Three-Days Workshop on "Python Programming Introduction Beyond: JUPYTER and NOTEBOOK" conducted by MITS, Madanapalle ,15th -17th May 2020.

54. A Three-Days Webinar on "Qualitative Research, Blogs Writing and Neuro Science in Outbreak of COVID19" conducted by IEEE KEC SB Kerala, 14th -16th May 2020.

55. A Three-Days Online Faculty Development Programme on "Machine Learning and Artificial Intelligence" conducted by Andhra Loyola Institute of Engineering and Technology, Vijayawada, 4th -6th May 2020.

Two Days

56. A Two-day Workshop on "AI Foundations: Building the Future", organized by Departmentof AI&ML, AITS, Rajampet, in association with Sri Vensy Technologies Pvt Ltd, Tirupati, from 04-10-2024 to 05-10-2024.

57. A Two-day Workshop on "Artificial Intelligence in IT: Transforming Technology", organized by Department of CSE(AI), AITS, Rajampet, in association with Sri Vensy Technologies Pvt Ltd, Tirupati, from 18-09-2024 to 19-09-2024.

58. A Two days' workshop on "AI Congress" Conducted by "CVR college of Engineering", Hyderabad, 25 June 2021 to 26 June 2021.

59. A Two days' workshop on "Free and open source alternative for web conferencing and teaching learning" Conducted by "Mahatma Gandhi Institute of Technology", Hyderabad, 15 July 2020 to 16 July 2020.

60. A Two-Days Webinar on "Writing Research Projects and Articles", Conducted by AITS, Rajampet, 04th August-05th August 2020.

61. A Two-Days Webinar on "Easy Implementation of LMS in your Institute", Conducted by AITS, Rajampet, 25th July- 26th July 2020.

62. A Two-Days Online Faculty Development Programme on "NBA-OBE: Attainment of Course Outcomes Cos), Program Outcomes (Pos)and Program Specific Outcomes (PSOs)" conducted by Panimalar Institute of Technology, SVCET, Chittoor, 4th -5th July 2020.

63. A Two-Days Online Faculty Development Programme on "ICT Tools for Effective Teaching Learning" conducted by University of Technology, Jaipur, 13th -13th June 2020.

64. A Two-Days Online Faculty Development Programme on "BITCOIN and Cryptocurrency in Block Chain Technology" conducted by Panimalar Institute of Technology, Chennai, 20th - 21st June 2020.

65. A Two-Day Webinar on "Block Chain Technology" conducted by "MITS, Madanapalle", 17th -18th June 2020.

66. A Two-Day Webinar on "5G Broadcast States & Overview" conducted by "SMPTE Education", 29th -30th April 2020.

67. A Two-Day Workshop on "Python for Beginners" conducted by "SVEC, Tirupati", 29th -30th May 2020.

68. A Two-Day National Workshop on "Cyber Security" conducted by "IEEE Student Brach AITS Rajampet", 05-06 September 2014.

One Day

69. A One day workshop on "Innovation and Entrepreneurship" Conducted by "Narasaraopet Engineering College", Narasaraopet, 23 June 2021.

70. A One day workshop on "Python Programming" Conducted by "JIS College of Engineering", West Bengal, 15 June 2021.

71. One day Webinar on "Self-Management Program: SWAYAM" conducted by APSSDC, Vijayawada, 20th July 2020

72. One day Webinar on "Network Virtualization of IoT" conducted by Loyola Institute of Technology, Chennai, 18th June 2020.

73. One day Webinar on "Inkjet/3D/4D printed-Zero power RFID enabled wireless ultrabroadband modules for IoT, SmartTags and Smart Cities Applications" conducted by IEEE IAS SBC JCET, 16th June 2020.

74. One day Webinar on "Technology Towards IoT Present and Future" conducted by Panimalar Institute of Technology, Chennai, 14th June 2020.

75. One day Webinar on "From grid to Fog Cloud in the IoT" conducted by JSS Academy, Noida, 11th June 2020.

76. One day Webinar on "Cyber Security and Cyber Crimes" conducted by Loyola Academy, Secunderabad, 10th June 2020.

77. One day Webinar on "Research Issues in Digital Image Processing" conducted by Vikas Group of Institutions, Vijayawada, 6th June 2020.

78. One day Workshop on "COVID19: Impact on Education, technology, Environment and Mankind" conducted by Andhra Loyola Institute of Engineering and Technology (Aliet), Vijayawada, 30th May 2020.

79. One day Webinar on "Introduction to Machine Learning" conducted by SACRED HEART College, Tamilnadu, 29th May 2020.

80. One day Webinar on "Internet of Things" conducted by SRM Institute of Science and Technology, Kattankulathur, 22nd May 2020.

81. One day Workshop on "R Programming" conducted by Sona College, Salem, 15th May 2020.

82. One day Workshop on "Microchips IoT" conducted by SVCE Bangalore, 13th May 2020.One day Workshop on "Microchips IoT" conducted by SVCE Bangalore, 13th May 2020.

83. One day Workshop on "Recent Advances in Science and Technology of Concrete" conducted by IIT Madras, 2nd May 2020.

84. One day Workshop on "Enhancing Research Effectiveness using Scopus, Science Direct and Mendeley" conducted by Kurukshetra University, 1st May 2020.

85. One day Webinar on "Effective Delivery of Online Engineering Courses: Best Practices, Tips and Toolkits" conducted by IEEE Hyderabad Section, 21st April 2020.

86. One day Webinar on "Smart Cities Challenges and Opportunities" conducted by IEEE Guntur Subsection and Hyderabad Section, 2nd April 2020.

87. One day Workshop on "eSim, a First Course in the IoT Series for Teachers" conducted by IIT, Bombay, 21 September 2019.

88. One day Workshop on "Writing research papers and synopsis of PhD" conducted by LORDS, Hyderabad, 10th March 2019

89. One day Workshop on "Moodle Learning Management System" conducted by IIT, Bombay, 15th March 2019.

90. One day Workshop on "Scilab" conducted by IIT, Bombay, 04th May 2019.

91. One day Workshop on "Python Programming" conducted by IIT, Bombay, 22nd June 2019.

FDP / STTP/ Workshops/Conferences Organized/Attended

1. Organized a two-day Workshop on" *Artificial Intelligence in IT: Transforming Technology*", by J Durga Sri Vensy Technologies Pvt. Ltd., Tirupati from 18-09-2024 to 19-09-2024.

2. Organized a two-day Workshop on" *AI Foundations: Building the Future*", by J Durga Sri Vensy Technologies Pvt. Ltd., Tirupati from 04-10-2024 to 05-10-2024.

3. Organized a three-day Workshop on "*IoT, Robotics Programming and Drone Technology*" by Dr BKC Ganesh,3D Printing Technology, Tirupati from 15-02-2024 to 17-02-2024.

4. Attended a Two-week STTP workshop on "*Data Science with Python*" organized by Sreyas Institute of Engineering and Technology, Hyderabad from 03rd August to 15th August 2020.

5. Attended a One-Week STTP workshop on "*Advanced Deep Learning Techniques with Python*" organized by Anurag Group of Institutions, Hyderabad from 27th July to 01st August 2020.

6. Organized AICTE approved One day Workshop on "*Python*" conducted by IIT, Bombay on 25 May 2019.

7. Organized AICTE Sponsored Two Weeks Faculty Development Program on "*Big Data Analytics and machine Learning*" conducted by IIT, BOMBAY from 3rd May 2018 to 30th May 2018.

Online Certification Course

1. Received a NPTEL MOOC TOP Performing Mentor Certificate for the Online NPTEL Course on "Introduction to Industry 4.0 and Industrial Internet of Things ", from Jul-Dec 2024.

2. Twelve Weeks International MOOCs NPTEL-AICTE approved NPTEL Online Certification on "Introduction to Internet of Things" organized by, Prof. Adrijit Goswami, NPTEL Coordinator, IIT Kharagpur, Jan- Apr 2019.

Patents

1. Patent is published on "**SYSTEM AND METHOD FOR DETECTUION AND CONTROL OF CYBER ATTACKS IN LARGE NETWORK USING DATA MINING**", with application number 202011005996 on 21.02.2020 India.

2. Patent is published on "**MINDFUL METRICS: UTILIZING ML TO MITIGATE FACULTY STRESS IN EDUCATIONAL INSTITUTIONS**", with application number 202441038316 on 14.05.2024.

3. Patent is published on "**A STUDY ON THE ROLE OF TOURISM IN THE REDUCTION OF POVERTY AND ECONOMIC GROWTH**", with application number 202441038318 on 14.05.2024.

4. Patent published on "**THE ROLE OF MACHINE LEARNING AND BIOTECHNOLOGY IN AUTONOMOUS HARVESTING AND DATA DRIVEN MANAGEMENT FOR ADVANCEMENTS IN AGRICULTURE**", with application number 202441041428 on 25.05.2024.

5. Patent published on "**OPTIMISING MACHINE LEARNING MODELS FOR ACCURATE PREDICTION OF STUDENT LEARNING OUTCOMES**", with application number 202421079637 on 22-11-2024

6. Patent published on "**A CRITICAL ANALYSIS OF MACHINE LEARNING AND MODERN PEDAGOGY IN IMPROVING TEACHING PRACTICESIN HIGHER EDUCATION**", with application number 202421079638 on 22-11-2024.

Membership in Professional Societies

1. **IFERP** - **PMIN35647918**

2. **IAENG** - **283534**

3. **CSTA** - **Basic Member**

Personal Details

Father	:	N Narasimhulu
Date of Birth	:	15-07-1988
Marital Status	:	Married
Languages	:	English and Telugu
Nationality	:	Indian
Religion	:	Hindu

I hereby declare that the above mentioned are true to the best of my knowledge.

Dr. Narasapuram Penchalaiah