

Profile

Name : Dr. K. Juliet Catherine Angel

Gender : Female

Department : Computer Applications

Educational Qualification : B.Sc., M.C.A., M.Phil., Ph.D.



Sl. No.	Degree / Diploma	Subject / Main	Year of Completion	Name of the College / University
1	U.G.	B.Sc. Comp. Science	1999	Holy Cross College, Tiruchirappalli
2	P.G.	M.C.A.	2002	Bishop Heber College, Tiruchirappalli
3	M.Phil.	M.Phil. Comp. Science	2007	Bharathidasan University, Tiruchirappalli
4	Ph. D.	Computer Science	2019	Bharathidasan University, Tiruchirappalli

Aided ☐ Management ☒

Total Teaching Experience: 19 Years

Positions Held

Sl. No.	Name of the Position	Period
1	College Website In-charge	2006-2008
2	Examination Core Committee	2017 - October 2019
3	Coordinator – Media & Publicity Committee for ICNRI-18 (International Conference on Networking, Research and Innovation in Higher Education : Challenges and Channels)	August 2017 – July 2018
4	ATAL Ranking – Core Committee Member	2018 onwards
5	NAAC – Feedback – Core Committee Member	2018 - 2019
6	Smart India Hackathon – Single Point Of Contact (SPOC)	2018 onwards
7	Innovation Activity Coordinator	2019 - 2022
8	Institution Innovation Council(IIC) – Convener	2019 - 2023
9	NISP Coordinator	August 2020 onwards
10	Public Innovation Ambassador, IIC	2020 onwards
11	Rocheston Certified Chief Innovation Officer	25 th October 2020 onwards
12	Head, PG Department of Computer Applications	2022 onwards
13	Director - M.C.A	2022 – 2024
14	President, Holy Cross Innovation & Incubation Council (HCIICT)	2023 onwards

Areas of Specialization: Innovation, Entrepreneurship, Energy Efficiency in Mobile Wireless Sensor Networks, Internet of Things

Patents Granted by Patent Office, Govt. of India

1. Title: Automatic Accident Detector and Life Saver -

Application No.: 201941014443

Filed On: 10th April 2019 Published On: 16.10.2020

GRANTED ON : 21.2.2024 from 10th April 2019 for 20 years

Patent No. Granted : 513483
2. Title: Smart Biodegradable and Non-Biodegradable Waste Management

Application No.: 201941023232

Filed On: 12th June 2019 Published On: 4.3.2022

GRANTED ON : 6.3.2024 from 12th June 2019 for 20 years

Patent No. Granted : 521170
3. Title: Public Transport Tracker

Application No.: 201941014440

Filed On: 10th April 2019 Published On: 16.10.2020

GRANTED ON : 8.7.2024 from 10th April 2019 for 20 years

Patent No. Granted: 544462

Patents Applied & Under Examination:

FER has been filed for the Examination Reports of ALL the applied Patents

- 1. Title : A Wearable Device for Personal Safety** - **Application No. : 202041053069**
Filed On : 5th December 2020 Published On: 10.6.2022 FER Filed On :9.3.2023
- 2. Title : An Apparatus for Pedestrian Safety** - **Application No. : 202141004226**
Filed On: 1st February 2021 Published On : 5.8.2022 FER Filed On : 1.3.2023

Copyright Filed :

Title : Automatic Threat Sensing and Monitoring System for Women Safety Diary No. : 17214/2024-CO/SW
Copyright Filed On : 29.5.2024

Funds/Grants Received :

- 1. Funded Trans Disciplinary Team Project : HAATS : Holy Cross Accessible Acoustic Traffic Signal for Persons with Disabilities funded by UGC STRIDE, Holy Cross College(Autonomous), Tiruchirappalli – Rs. 6,40,000**
- 2. ATAL FDP : Co-coordinator : Integrating Innovation Knowledge and Entrepreneurship Evolution through Startup Ecosystems, FDP Application No.: 1716219245, to be held from 9th December 2024 to 14th December 2024 with a Grant of Rs. 3,00,000 from AICTE, New Delhi.**

Journal / Articles Published:

- 1. K. Juliet Catherine Angel, Dr. E. George Dharma Prakash Raj, “EEECA : Enhanced Energy Efficient Clustering Algorithm in Mobile Wireless Sensor Networks”, International Conference on World Congress on Computing and Communication Technologies(WCCCT), St. Joseph’s College(Autonomous), Tiruchirappalli, 2nd to 5th Feb 2017, pp. 267 - 270, DOI : 10.1109/WCCCT.2016.71.(Included in IEEE Xplore Digital Library, Scopus Indexed, Harvard Digital Library)**
- 2. K. Juliet Catherine Angel, Dr. E. George Dharma Prakash Raj, “GEECA : Grid Based Energy Efficient Clustering Algorithm for Mobile Wireless Sensor Networks”, Saudi Journal of Engineering and Technology (SJEAT), ISSN : 2415-6264 (O), Volume 2, Issue 12, pp. 457 - 464, Dec 2017, DOI :10.21276/sjeat.2017.2.12.1 (United Arab Emirates based Journal)**
- 3. K. Juliet Catherine Angel, Dr. E. George Dharma Prakash Raj, “DMGEECA : Density Based Mean Grid Energy Efficient Clustering Algorithm for Mobile Wireless Sensor Networks”, International Journal of Computer Sciences and Engineering, E-ISSN : 2347-2693, Volume 6, Issue 3, pp.27 - 33, Mar 2018. (UGC Approved Journal)**
- 4. K. Juliet Catherine Angel, Dr. E. George Dharma Prakash Raj, “Clustering Algorithms in Mobile Wireless Sensor Networks - A Survey”, International Journal of Engineering Research and Application, ISSN: 2248- 9622, Volume 7, Issue 12, pp. 17 – 21, Dec 2017, DOI : 10.9790/9622-0712061721.(UGC Approved Journal)**
- 5. K. Juliet Catherine Angel, Dr. E. George Dharma Prakash Raj, “A Strategic Review of Energy Efficient Clustering Algorithms in Mobile Wireless Sensor Networks”, International Journal of Computer Science and Network, ISSN (Online) : 2277-5420, Volume 7, Issue 3, pp. 138 - 145, June 2018. (Elsevier Indexed)**
- 6. K. Juliet Catherine Angel, “Clustering Routing Protocols in Wireless Sensor Networks – A Survey”, International Journal of Electrical, Electronics in Computer Science and Engineering, (IJECESE) Feb 2018, E-ISSN : 2348 - 2273.**
- 7. K. Juliet Catherine Angel, “Automatic Vehicle Accident Tracking and Rescuing with Smart Ambulance”, International Journal for Research and Development in Technology, Volume 11, Issue 3, Mar 2019, ISSN(O) : 2349 - 3585.**
- 8. K. Juliet Catherine Angel, Dr. E. George Dharma Prakash Raj, “Societal Impact of Framework for Energy Efficient Clustering Algorithms in Mobile Wireless Sensor Networks”, International Conference on Artificial Intelligence, Smart Grid and Smart City Applications (SPRINGER), pp 397-406, March 2020, ISBN(O) : 978-3-030-24051-6.**
- 9. Dr. K. Juliet Catherine Angel, “Portrayal of Women in Indian Television”, Studies in Indian Place Names, UGC are Listed Journal, Vol 40, Issue 48, March 2020, ISSN : 2394-3114.**
- 10. Dr. K. Juliet Catherine Angel, “A Hybrid Approach for Cost Effective Routing and Security for MANETs using BSSO-DSR and AES-ECC Algorithms”, International Journal of Scientific & Technology Research, (IJSTR), Vol 9, Issue2, February 2020, ISSN : 2277-8616 (SCOPUS Indexed Journal).**
- 11. Dr. K. Juliet Catherine Angel, “Energy Efficient Load Balancing in WSN with the help of Modified Ant Based Routing Algorithm”, International Journal of Science and Technology, Vol 29, 5s(2020) (SCOPUS Indexed Journal), ISSN: 2005-4238 (PRINT), IISSN 2207-6360 (ONLINE).**
- 12. Dr. K. Juliet Catherine Angel, “Assertive Search Optimization Routing based RNN for Intrusion Detection in MANET”, EJMC - European Journal of Molecular & Clinical Medicine, Volume 7, Issue 3, 2020, ISSN : 2515-8260. (SCOPUS Indexed Journal)**
- 13. Dr. K. Juliet Catherine Angel, “A Study of Social Media Analytics”, 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), IEEE Xplore, pp. 1-13, November 2021.**
- 14. Dr. K. Juliet Catherine Angel, “Statistical Analysis on IoT for Smart India”, IICT - International Journal of Intelligent Computing and Technology , ISSN: 2457-0249 (Online), Article Received: June 2021; Published: Jan 2022, Article ID: V5I2P04, Vol: 5, Iss.2 Pages:30-38(SCOPUS Indexed Journal)**

15. Dr. K. Juliet Catherine Angel, **“IoT Based System for Automatic Basketball Scoring Board”**, Journal of Multidimensional Research & Review, ISSN No. : 2708 9452, Article Received: September 2023; Published: October 2023, Article ID : V412P02, Vol: 4, Iss. 2, Pages: 12-19
16. Dr. K. Juliet Catherine Angel, **“Smart Artificial Intelligence Based Traffic Prediction”**, Journal of Multidimensional Research & Review, ISSN No. : 2708 9452, Article Received: September 2023; Published: October 2023, Article ID : V412P03, Vol: 4, Iss. 2, Pages: 20-28
17. Dr. K. Juliet Catherine Angel, **“IoT Based Smart Shoe for Visually Challenged People”**, Journal of Multidimensional Research & Review, ISSN No. : 2708 9452, Article Received: September 2023; Published: October 2023, Article ID : V412P08, Vol: 4, Iss. 2, Pages: 59-66

Awards/Recognitions

- ❖ **Certified as Chief Innovation Officer** on qualifying the CCIO Examination conducted by Rocheston LLC, New York on 25th October 2020.
- ❖ Completed the **Basic & Advance Level Innovation Ambassador Training** organized by **Ministry of Education’s Innovation Cell, Govt. of India** and have been certified as **Innovation Ambassador**.
- ❖ Sr. Dona Award for **Best Researcher (Science)** : 2022 – 2023
- ❖ Received Cash Award for the **First and Second College Patent Grant** : 2023-2024
- ❖ **Best Paper Award with Rs. 3000 Cash** : “Optimizing the Energy Consumption in IoT Based Mobile Wireless Sensor Networks”, AMET GLOBAL MARITIME SUMMIT (AGMS – 2024) : Charting the Future of Maritime Excellence, Dr. Ramachandran Maritime Foundation, AMET University, Chennai on 2nd July 2024.
- ❖ Completed and Received Certification for **Innovation Ambassador Re-Skilling Training**(21 Sessions), **Ministry of Education’s Innovation Cell & AICTE, New Delhi** on 16.9.2024

Mentor for Innovative Projects:

1. Smart India Hackathon – AICTE, Govt. of India

- **Software Edition : 1. Live Bus Tracking System** in the Grand Finale held at Guru Nanak College, Kolkata on 2nd and 3rd March 2019 in the Smart India Hackathon 2019.
- : **2. Women Safety Watch** (Untouchable Fires Team) under the domain of Ministry of Women and Child Development Grand Finale held on 1st, 2nd, 3rd August 2020 in the Smart India Hackathon 2020.
- : **3. Use of Digital Technology in Addressing Non-Revenue Water** (Future Successors) under the domain of Ministry of Jal Sakthi held on 19th & 20th December 2023 at Vignana Bharathi Institute of Technology, Hyderabad, in the Grand Finale of Smart India Hackathon 2023. The Team was credibly positioned as **one of the 5 top most teams** among 95 submitted ideas nationwide.
- **Hardware Edition : Automatic Vehicle Tracking and Rescuing using Smart Ambulance** was selected in the first round and is proceeded for the second level.

2. PoC Competition, IIC South Zone, MoE’s Innovation Cell, Govt. of India

- IoT Based Dam Monitoring and Smart Farming under IoT theme in PoC Competition, South Zone IIC, MoE’s Innovation Cell, Kumaraguru College of Engineering, Coimbatore on 29th June 2019.
- Smartified Dustbinology under Waste Management theme in PoC Competition, South Zone IIC, MoE’s Innovation Cell, Kumaraguru College of Engineering, Coimbatore on 29th June 2019.

3. Jumpstart 2020, Native Leads, Tamil Nadu

- Smartified Dustbinology participated and won the first place with the cash award of Rs.25000 in Jumpstart 2020 organized by Nativelead Foundation of angel investors and Young Indians Thoothukudi Chapter.

4. Tamil Nadu Student Innovators, Tamil Nadu

- Smartified Dustbinology participated and won the fourth place in Trichy Zone with the Fellowship award of Rs.1,00,000 in Tamil Nadu Student Innovators 2019, TN EDII, Tamil Nadu.

Resource Person/Judge:

1. Session Chair, **Two Day International Seminar on Fitness First - Towards Holistic Health and Well Being**, 17th December 2019, Department of Rehabilitation Science, Holy Cross College (Autonomous), Tiruchirappalli – 620 002
2. Judge, **“Innovation Campaign”** on 28th February 2020, St. Joseph’s College (Autonomous), Tiruchirappalli – 620002
3. Judge, **“PG Project Demo Session”** on 5th March 2020, Cauvery College for Women, Tiruchirappalli – 620 018
4. Resource Person, **“Create Your Poster Design & Video Clipping”**, 10th June 2021, COVID Free Trichy, Holy Cross College (Autonomous), Tiruchirappalli – 620 002
5. Resource Person, **“3 Days Bootcamp on Innovation”** - 28th - 30th July 2021: **“Unlocking the Innovative Minds”** on 28th July 2021, Madras Christian College, Chennai.
6. Resource Person, **“Panel Discussion on Awareness and Activities of IIC”**, 24th September 2021, PG Department of Computer Science, Holy Cross College(Autonomous), Tiruchirappalli - 620 002

7. Judge, ***“Pitching Event on Pitching Event for Ideas Scouted & Linkage with Innovation Ambassadors for Mentorship Support”***, 20th December 2021, Bishop Heber College(Autonomous), Tiruchirappalli – 620 017
8. Resource Person – ***“Seeding Entrepreneurship in Young Talents in the Field of Disability”***, 12th February 2022, PG & Research Department of Rehabilitation Science, Holy Cross College (Autonomous), Tiruchirappalli – 620 002
9. Judge, ***“The Quest 2022 - Idea Challenge Competition”***, 24th February 2022, PG Department of Computer Applications, Holy Cross College(Autonomous), Tiruchirappalli - 620 002
10. Judge, ***“Innovative SkyLine - Idea Challenge Competition”***, 24th February 2022, PG Department of Data Science, Holy Cross College (Autonomous), Tiruchirappalli – 620 002
11. Resource Person – ***“Innovation and IPR”***, PG & Research Department of Rehabilitation Science, UGC STRIDE Component I : Transdisciplinary Research & Startup Initiatives & Holy Cross Incubation and Innovation Council, Holy Cross College(Autonomous), Tiruchirappalli, Sponsored by RAJIV GANDHI NATIONAL INSTITUTE OF YOUTH DEVELOPMENT, (Institution of National Importance by the Act of Parliament No. 35/2012), Ministry of Youth Affairs & Sports, Govt. of India, Sriperumbudur, Tamil Nadu, 17th March 2022.
12. Resource Person – ***“Nurturing Innovative Ideas in Young Minds”***, School of Rehabilitation Science and Behavioural Sciences, Department of Psychology, Holy Cross College (Autonomous), Tiruchirappalli, 17th March 2022.
13. Resource Person – ***“NISP Policy & SIH”***, Orientation & Mentoring Session I for Mentee Institutions(Bishop Heber College(Autonomous), Tiruchirappalli & Aiman College for Women, Tiruchirappalli), Holy Cross Innovation & Incubation Council (HCIICT), Holy Cross College(Autonomous), Tiruchirappalli, 18th March 2022.
14. Resource Person – ***“Towards the Next Level - Patenting/Copyrights”***, Webinar on Trans Disciplinary Research with UGC STRIDE, Salesian College Sonada in Collaboration with Holy Cross College(Autonomous), Tiruchirappalli, 9th July 2022.
15. Judge – ***“Ideation to Incubation Series XVI : Validating the Innovative Ideas to Prototypes”***, Holy Cross Innovation and Incubation Council(HCIICT), Tiruchirappalli, 26th July 2022
16. Resource Person – ***“Turning Your Ideas into Patents : Understanding the Basics of Intellectual Property Rights”***, School of Psycho Social Praxis in Collaboration with Salesian Research Centre & IQAC, Salesian College, Siliguri, West Bengal, 9th September 2022
17. Judge – ***“Idea Generation”***, Department of B.Voc (BFSI) & Department of BPO, Holy Cross College (Autonomous), Tiruchirappalli, 18th October 2022
18. Judge – ***“The Quest - Idea Challenge Competition”***, School of Mathematical Computation Sciences, PG Department of Computer Applications, Holy Cross College (Autonomous), Tiruchirappalli, 27th October 2022
19. Judge – ***“Idea Pitching Competition”***, School of Mathematical Computation Sciences, Department of B.Voc Software Development, Holy Cross College (Autonomous), Tiruchirappalli, 29th October 2022
20. Judge – ***“Cyberfest -23”***, School of Mathematical Computation Sciences, PG Department of Computer Science, Holy Cross College(Autonomous), Tiruchirappalli, 20th March 2023
21. Jury – ***“Internal Hackathon 2023 for SIH 2023”***, PG Department of Computer Applications, Holy Cross College (Autonomous), Tiruchirappalli, 21st September 2023.
22. Resource Person – ***“HCIICT : Benchmarking Performance Indicators”***, Industrial Innovation Center (IIC) of Daffodil International University, Bangladesh on 5th December 2023.

Book/Chapter Publications :

1. Lesson Writer : ***“Cloud Computing”*** – II M.C.A – CDE, Bharathidasan University
2. ***“Power Bi Analytics Across Industries: Transforming Data Into Insights”***, ISBN: 978-81-962447-5-0
Book Chapters : 3

Paper Presentations/Conference/Workshops/Seminars/FDPs/Visits/Orientation Sessions:

No. of Paper presentations : 51

No. of Conferences attended : 34 International : 16, National : 17, Regional : 1

No. of National/International Workshops attended : 9

No. of Incubation Hub Visits : 5

No. of FDPs : 26, No. of Seminar : 6, No. of Webinars : 45

No. of IIC Orientation Sessions attended : 40

Organizing Capability:

Sl. No.	Name of the Event	Role	Date
1	Advanced Computing & Communication Technologies	Organizing Member	2009
2	Emerging Trends in Communication and Information Technology	Organizing Member	2010
3	International Seminar on Cloud Journey to Industry	Organizing Member	14 th July 2017
4	National Seminar on Innovative Computing Technologies	Organizing Secretary	8 th Jan 2018
5	National Seminar on Data Science	Organizing Member	Feb 2018
6	Idea Competition	Organizer	28 th June 2019
7	Innovation Day – Contest for School Students	Convener	15 th Oct 2019
8	International Conference on Smart and Innovative Technologies – The Future of Digital India	Organizing Secretary	16 th & 17 th Mar 2020
9	Bootcamp, Hackathons, HCIIC & UGC STRIDE Activities, Orientations	HCIIC Innovation Ambassador	2020 onwards yearly till date
10	Outreach Program : 25 days Computer Literacy Program for School Children of 25 adopted Villages	Convener	January 2023 - March 2023
11	International Conference on New Trends in Computational Sciences (ICNTCS-23)	Convener	28 th February 2023
12	Workshop on Augmented and Virtual Reality	Convener	16 th March 2023
13	One Day International FDP on Innovative Artificial Intelligence and Deep Learning	Convener	7 th August 2023
14	Internal Hackathon	Convener	21 st September 2023
15	Web Scintillators - Intra Departmental Competition	Convener	6 th January 2024
16	One Day International FDP on Transformative Teaching Strategies and Innovative Research	Convener	30 th January 2024
17	One Day International Seminar on Futuristic Trends in Computational Sciences	Convener	20 th Feb 2024

Member of Various Board/ Committee:

Technical Advisory Committee Member : 1st International Conference on Prominent Challenges in Information Technology, St. Joseph’s College of Arts and Science for Women, Hosur

Academic Council Nominee : Board of Studies : MCA, Department of Computer Applications, Bishop Heber College (Autonomous), Tiruchirappalli from May 2023 till date

Visit Abroad : *Binary University, Malaysia* from 23rd November 2019 to 31st December 2019 for a Students Short Academic Program

: *Daffodil International University(DIU), Bangladesh* from 3rd December 2023 to 7th December 2023
Distinguished Participant : Discussion Session on Grievance Redressal and Gender Studies at Educational Institutions

Resource Person : HCIICT - Benchmarking Performance Indicators

Residential Address: 6/55, Main Road, South Street, U.K.T Malai, Tiruchirappalli - 620 102.

Telephone (R) With Area Code: 0431 - 2781821, **Mobile :** +91 9952897404

Email – ID: julietcatherineangel@gmail.com, julietcatherineangel@hcctrichy.ac.in, julietcatherine@yahoo.com

DECLARATION:

I hereby declare that all the information given above are true to my knowledge.

Dr. K. Juliet Catherine Angel