### **PROFILE**



Name: DR. S. CATHERINE.P.ALEXANDER

Designation: Associate Professor

Department : Zoology

Date of Birth: 20.04.1969

Date of Appointment: 14.07.1992

### **CONTACT DETAILS**

Present Address: 15/8-2C, Jeevanantham Street

Thamaraikulam, Periyakulam

Theni Dt, 625601

Permanent Address: 358, Venkatasamy Street

Ponnappa Nadar Colony Nagercoil, K.K Dt, 629004

Contact No.: 9487582969 | 9944042969

EMAIL: catherine\_ruskin@yahoo.co.in/catherinezoo@annejac.ac.in

### **Academic Qualifications:**

Sl	Institution	Degree	Year	Field of
No.		Awarded		Study
1	Lady Doak College, Madurai, Madurai Kamaraj University	Ph.D.	2008	Immunology
2	St,Xavier's College (Autonomous), Tirunelveli Manonmaniam Sundaranar University	M.Phil Distinction	1992	Embryology
3	Holy Cross College, Nagercoil Madurai Kamaraj University	M.Sc- University I Rank	1991	Zoology

4	Holy Cross College, Nagercoil	B.Sc-	1989	Zoology
	Madurai Kamaraj University	University		
		I Rank		

### Title of Ph.D.Thesis:

Studies on Immunomodulation by *Tinospora cordifolia* (Miers) Leaves in *Oreochromismossambicus* (Peters)

Degree awarded on 12.11.2008

Availed FIP IN X Plan period, Feb 2005 – Jan 2007

# **Teaching Experience:**

Sl	Institution&	Position	From	To
No.	Place		(Date)	(Date)
1	Jayaraj Annapackiam College		2009	Till date
	for Women (Autonomous)	Associate Professor		
	Periyakulam			
2	Jayaraj Annapackiam College			
	for Women (Autonomous)	Reader	2008	2009
	Periyakulam			
3	Jayaraj Annapackiam College		2002	2008
	for Women (Autonomous)	Lecturer(S.G)		
	Periyakulam			
2	-do-		1997	2002
		Lecturer(S.S)		
3	-do-		1992	1997
		Lecturer		

#### **Awards Received:**

- 1. **National Merit Scholarship** instituted by Rajiv Gandhi Foundation, New Delhi forscoring highest marks amongst all the students in Tamilnadu who passed out in 1989 in B.Sc Zoology.
- 2. **Dr.M.Varadarajan Memorial Endowment Prize** for having secured the highestmarks in B.Sc Zoology in 1989 at Madurai Kamaraj University.
- 3. **Sri M.Bhatavatsalam 69<sup>th</sup> Birthday commemoration prize** for having securedthe highest marks in B.Sc Zoology in 1989 at Madurai Kamaraj University.
- 4. **Sri M.Bhatavatsalam 69<sup>th</sup> Birthday commemoration prize** for having secured the highest marks in M.Sc Zoology in 1991 at Madurai Kamaraj University.
- 5. **Research Fellowship** and Study Leave to pursue Doctoral Studies by the University Grants Commission under the Faculty Improvement Programme (2005-2007).

### Conference /Seminar/workshop Attended:

Title of Workshop Seminar / Conference	Sponsors	Venue	Period	Category
National seminar on Emerging Trends in Current Environmental Issues	J.A. Colllege for women, Periyakulam	J.A. Colllege for women, Periyakulam	11 <sup>th</sup> and 12 <sup>th</sup> December 2019	National
National level	UGC, SERO,	University of	18 <sup>th</sup> and 19 <sup>th</sup>	National
training on  Evaluation  Reforms in Higher  Education	Hyderabad	Hyderabad, Hyderabad	July, 2019	
Workshop on Women in Science and Research	J.A. Colllege for women, Periyakulam	J.A. Colllege for women, Periyakulam	19 <sup>th</sup> & 20 <sup>th</sup> February,20 18	National

"Emerging Trends in Life Sciences"	J.A. Colllege for women, Periyakulam	J.A. Colllege for women, Periyakulam	9 <sup>th</sup> January 2018	National
Workshop on Statistics using EXCEL and SPSS	J.A. Colllege for women, Periyakulam	J.A. Colllege for women, Periyakulam	5th & 6th September 2017	International
Microbial tool and Bioremediation	J.A. Colllege for women, Periyakulam	J. A. College for Women, Periyakulam	9th & 10th Feb 2017	National
Quality Assurance and Quality Sustenance in Higher Educational Institutions: Challenges and Solutions	NAAC	J. A. College for Women, Periyakulam	29th to 30th September, 2016	National
"Frontier Lectures in Biology"	Science Academies	J. A. College for Women, Periyakulam.	21st &22nd March, 2016	National
NSS Orientation training	NSS	Avinashilingam University, Coimbatore.	1 <sup>st</sup> March to 7 <sup>th</sup> March 2016.	National
Ranking the research publication- citation analysis, citation database and antiplagiarism	UGC	J. A. College for Women, Periyakulam	27 <sup>th</sup> to 28 <sup>th</sup> January 2016	National
4th International conference and Exhibition on Immunology	-	Crowne Plaza Houston River Oaks, Houston,TX, USA.	28th to 30th September, 2015	International
Leadership Training Programme	-	Christ University, Bengaluru	29th -30th June 2015	-
"Polymerase Chain Reaction Techniques" Zoology	Eppondorf India Ltd., Chennai	J. A. College for Women, Periyakulam	2nd September, 2015	Regional
Workshop on		J. A. College for	24th to 28th	Regional

Statistical Packages for Social Sciences	TNSCST	Women, Periyakulam.	August 2015	
Sustainable Development and the role of women in Nation building on Women and Health	UGC	J. A. College for Women, Periyakulam.	11th & 12th February 2015	National
Interdisciplinary Application of Biology	UGC	J.A. College for Women (Autonomous), Periyakulam	28th & 29th January, 2015	National
Workshop on Reforms in Curriculum Development and Examination System	Mother Teresa Women's University, Kodaikanal	Jayaraj Annapackiam College for Women, Periyakulam	13th Nov, 2013	State level
Seminar on Modern Trends in Applied Microbiology	-	Jayaraj Annapackiam College for Women, Periyakulam	19th August, 2013	International
Workshop on Statistical Packages for Social Sciences.	TNSCT	Jayaraj Annapackiam College for Women, Periyakulam	11th- 15th Feb, 2013	State level
Seminar on New Frontiers in Biology.	UGC	Jayaraj Annapackiam College for Women, Periyakulam	18th - 19th Dec, 2012	National
Seminar on Intellectual Property and Innovation Management in Knowledge Era	National Research Development Corporation, New Delhi & Gandhigram Rural Institute.	Gandhigram Rural Institute. Gandhigram	17th Oct, 2012	National
Core Committee meeting on National Consultation on Promoting Environment	UBCHEA, Philippines	Lady Doak College, Madurai. 04.08.2012.	4th Aug, 2012	National

Education				
"New Start- Life style for Health"	-	J.A. College, Periyakulam	2nd March 2012	National
Workshop on Hands on Training in Avian Studies	TNSTC, Chennai	Jayaraj Annapackiam College for Women, Periyakulam	14th-15th , Feb, 2012	State level
"Popular Lecture Series on Vermi Technology"	INSA	J.A. College, Periyakulam	8th Feb.2012	

"Biodiversity"		J.A. College, Periyakulam	1 <sup>st</sup> August 2012	
8th Symposium on diseases in Asian Aquaculture	Fish Health Section of Asian Fisheries Society	College of fisheries, Mangalore.	21st- 25th Nov, 2011	International
Workshop on recent Trends in Science for Talented Rural school students of Periyakulam Educational District	TNSTC, Chennai	Jayaraj Annapackiam College for Women, Periyakulam	12th-13th Oct, 2011	Regional
Seminar on Moulding the Christian Youth in the Light of Christ	-	Jayaraj Annapackiam College for Women, Periyakulam	15th Sep, 2011	State level
Seminar on Biodiversity – Measures for Conservation and Management	-	Jayaraj Annapackiam College for Women, Periyakulam	16th Dec, 2010	State level
Seminar on Human Rights	UGC	Jayaraj Annapackiam College for Women, Periyakulam	9th - 10th Dec, 2010	National
Seminar on Inculcation of Values for holistic life amidst Technical Scenario	UGC	Jayaraj Annapackiam College for Women, Periyakulam	6th - 7th Dec, 2010	National
Workshop on Higher Education in a changing environment	-	Jayaraj Annapackiam College for Women, Periyakulam	26th - 27th Nov, 2010	Regional
Seminar on Recent Trends in Biotechnology	UGC	Holy Cross College,Nagerco il	13 th March, 2010	International
Seminar on Conserve the mother Earth need of the hour".	UGC	Jayaraj Annapackiam College for Women,	9th - 10th March 2009	National

		Periyakulam		
Seminar on Quality and Relevance in higher education – "New Challenges"	NAAC	Jayaraj Annapackiam College for Women, Periyakulam	2nd - 3rd March,2009	National
Workshop on "Application of statistical packages in Biology"	-	Jayaraj Annapackiam College for Women, Periyakulam	23rd February 2009	State level
Seminar on Modern Biological Sciences	INSA, New Delhi	Jayaraj Annapackiam College for Women, Periyakulam	27th January 2009	State level
Seminar on Christian Values for wholesome life	Xavier Board of Higher Education in India	Jayaraj Annapackiam College for Women, Periyakulam	29th August 2008	State level
Seminar on Cutting Edge Molecular Techniques.	Eppendorf India	Lady Doak College,Madurai	March 1st ,2008	Regional
Seminar on Participative and Responsive Organizational Dynamics for Quality Improvement in Autonomous Colleges	-	Jayaraj Annapackiam College for Women, Periyakulam	19th -20th Dec, 2007	National
Workshop on Role of Women's Studies in India	-	Alagappa University, Karaikudi	21st -22nd Sep, 2007	Regional
Symposium on Biotechnology and Biocontrol	DBT, DST, CSIR etc.,	Lady Doak College,Madurai	27th-29th Nov, 2006	International
Workshop on Biological Data Handling	TNSCST and NCSTC	Lady Doak College, Madurai	9th -12th Aug, 2006	State Level
Seminar on Biomedicine in Aquaculture	Aquaculture Foundation of India	Kanyakumari	17th-18th March, 2006	National

Seminar on Frontier Areas in Plant Biotechnology	DBT	Lady Doak College, Madurai	20th -21st Jan,2006	National
The 7th Indian Fisheries Forum	Asian Fisheries Society	Animal and Fisheries Sciences University, Bangalore	8th-12th Nov, 2005	International
6th Symposium on Diseases in Asian Aquaculture	Fish Health Section of the AFS	Colombo, Srilanka	25th-28th Oct, 2005	International
Workshop and Training Programme on Bioethics Education	Eubios Ethics Institute	Jayaraj Annapackiam College for Women, Periyakulam	20th Jan,2005	International
SWIFT Jyoti Programme	-	NIIT, Periyakulam	Dec, 2002	-
Bakery and confectionary (Basic and Advanced)	-	Jayaraj Annapackiam College for Women, Periyakulam	20th June-4th July, 2002	Regional
Workshop on Environmental Protection- People and Law	C.P.R. Environmenta 1 Education Centre	Jayaraj Annapackiam College for Women, Periyakulam	30th Nov, 2000	Regional
Workshop on Immunological Techniques	UGC and TNSCST	The American College, Madurai	1st -13th, May, 2000	State Level
Workshop on Techniques in Fish Immunology	The American College	The American College, Madurai	9th- 11th,Feb,19 99	Regional
Seminar on Applied Biotechnology	-	Jayaraj Annapackiam College for Women, Periyakulam	28th Jan,1999	Regional
Workshop on Computer Applications-	AIACHAE	Jayaraj Annapackiam College for	8th -9th Nov, 1995	Regional

WORDSTAR, LOTUS 1-2-3		Women, Periyakulam		
Career workshop for women college leavers	-	Alagappa University, Karaikudi	13th -14th Sep, 1995	Regional
A course in counseling and effective communication	Xavier Board of Higher Education in India	Bangalore	27th -31st May, 1994	National
Workshop on Environmental Studies	AIACHAE	Bishop Heber College, Trichy	16th -23rd May, 1994	National
Conference on Pollution Prevention-The Technology for the Future	UGC	Bishop Heber College, Trichy	19th May, 1994	National

### **Research contributions:**

Books: 1

Laboratory Manual in Zoology (Co-author), ACCA

Publications, Periyakulam

Book: 2

Immunomodulators in Aquaculture and Fish Health (Section - IV-Current status of immunomodulators in Aquaculture). CRC Press, Taylor & Francis Group. ISBN-9781003361183. October, 2023.

- M. Phil Research projects Supervised –10
  - M. Phil Research projects Supervised in the field of Fish Immunology (6)
    - Immunomodulation by Withania somnifera root in O.mossambicus
    - Immunomodulatory effect of Mentha arvensis in O.mossambicus
    - Immunotoxicological effect of Coffee Industrial Effluent on Cyprinuscarpio
    - phytochemical, pharmacological Study and immunomodulating properties of Cissus quadrangularis
    - Study on Immunomodulating and Pharmacological activities of Nigella sativa

- Has Prepared Course materials for Aquaculture (for Skill based Elective Course)
- Has obtained **Ph.D. Guideship** from Mother Teresa Women's University, Kodaikanal.
- Completed Major Research Project
  UGC funded Major Research Project entitled "Influence of herbal immunostimulant

Andrographis paniculata, on the immune responses and survival on *Oreochromis* mossambicus against Aeromonas hydrophila infection." with a grant of Rs.10.75 lakhs for the period 2011-2014.

Number of Ph.D Scholars— 1awarded I .GEETHA (Reg.No. PHDZOO13F001) Topic "Andrographis paniculata as a potential immunostimulant in Cyprinus carpio against Aeromonas hydrophila infection".

### **Resource Sharing**

- Has contributed as Resource person in Training Workshop on Immunological Techniques organized by Centre for Fish Immunology, Lady Doak College, Madurai on April 30 - May 12, 2007.
- Has contributed as Resource person in 4<sup>th</sup> Training Workshop on Immunological Techniques from Jan 27-Feb 5, 2009 organized by Centre for Fish Immunology, Lady Doak College, Madurai.
- Has contributed as Resource person in 5<sup>th</sup> Training Workshop on Immunological Techniques from May 3 - 15, 2010 organized by Centre for Fish Immunology, Lady Doak College, Madurai.
- Has contributed as Resource person in the creation of scientific awareness programme to the talented rural school children of Theni District organized by Jayaraj Annapackiam College for Women, Periyakulam on Feb 4-5 2010
- Has contributed as **Resource person** At Lone Star College, Cyfair Cypress, Texas, USA and delivered a special lecture on "Vaccination" on 7th October 2015.
- Served as a Resource person in the "Inservice training to science teachers" catalyzed and Supported by Tamil Nadu State Council for Science and Technology", Chennai organized by PG

& Research Centre of Zoology, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam on 04,05,06, 08 &09.01.2024.

### **Papers presented in Conferences**: 13 (International 5)

- 1. Research paper entitled "Immunostimulatory effect of water-soluble fraction of *Tinosporacordifolia* leaves on the immune response of *Oreochromis mossambicus*" presented at Sixth
  - Symposium on Diseases in Asian Aquaculture: Aquatic Animal Health Facing New Challenges organized by Fish health section of Asian Fisheries Society (AFS), Colombo, Srilanka on 25-28 Oct 2005 (International)
- Research paper entitled "Immunostimulatory effect of hexane fraction of *Tinosporacordifolia* leaves on *Oreochromis mossambicus*" presented at The Seventh Indian Fisheries
   Forum, Bangalore, India organized by Asian Fishereies Society Indian Branch on 8-12
   November, 2005. (International)
- 3. Research paper entitled "Immunomodulatory activity of *Nyctanthes arbortristis* seed kernel extracts in *Oreochromis mossambicus*" presented at organized by Centre for Marins Science and Technology, Manonmaniam Sundaranar University, Rajakkamangalam, Tamilnadu on March 17 19, 2006.
- 4. Research papers 1) "Tinospora cordifolia a potential oral immunostimulant for Oreochromis mossambicus" 2) "Effect of detergents on oxygen consumption and tissuechemistry in Lepidocephalicthys thermalis" presented at Fourth Symposium on Biocontrol and Biotechnology organized by Lady Doak College, Madurai, Tamilnadu, India on 27-29 Nov 2006. (International)
- Research paper entitled "Immunostimulatory effect of chloroform extract of
   *Nyctanthesarbortristis* seeds in *Oreochromis mossambicus*" presented at organized by Fish
   healthsection of Asian Fisheries Society (AFS), Taipei, Taiwan on 22-26 July 2008.
   (International)
- 6. Research paper entitled "A study on the relation between the balanced diet supplemented with cultivated fodder crops on quantity and quality of milk in exotic cow Holstein friesian presented at Seminar on Conserve the mother Earth need of the hour organized by J.A .college, Periyakulam on 9th - 10th March 2009

- 7. Research paper entitled "Hexane soluble fraction of *Tinospora cordifolia* leaves as a feed supplement enhanced the non-specific immune mechanisms and disease resistance in *Oreochromis mossambicus*" presented in the 8<sup>th</sup>Symposium on diseases in AsianAquaculture at College of fisheries, Mangalore organized by Fish Health Section of Asian Fisheries Society on 21<sup>st</sup> 25<sup>th</sup> November 2011 (International)
- 8. Research papers entitled 1) "Immunomodulatory effect of *Withania somnifera root* in *Oreochromis mossambicus*." and 2) Immunotoxicological effect of Tannery Effluent on *Oreochromis mossambicus* presented in the National conference on Potentials & prospectsof Aquatic Resources at Kunthavai Naachiyar Govt. Arts College for Women, Thanjavur. on 6<sup>th</sup> 7<sup>th</sup> February 2012
  - 9. Research paper entitled "Immunomodulatory effect of *Mentha arvensis* in *Oreochromis Mossambicus*." presented in the National Seminar on Science and Technology for Cleanand Green Environment at Annamalai University, Chidambaram on 27<sup>th</sup> 28<sup>th</sup> July 2012
  - 10. Research papers entitled 1) "Immuostimulants of plant Origin and Aquaculture and 2) Immunotoxicological effect of Coffee Industrial Effluent on *Cyprinus carpio* presented in the National seminar on New frontiers in Biology at J. A. College, Periyakulam. on 18<sup>th</sup> 19<sup>th</sup> December 2012
  - 11. Research papers entitled "Andrographis paniculata: Phytochemistry and Pharmacology-A Review in UGC sponsored National Seminar on Interdisciplinary Application of Biology at J. A. College, Periyakulam. on 28th & 29th January, 2015
  - 12. Research papers entitled "Immunotoxicity of industrial effluents in fin fish: an alternative animal model for immunotoxicological studies" in 4th international conference and exhibition on immunology" Houston, Texas, United States of America, from 28th to 30th September, 2015
  - 13. Research papers entitled "Research Quality in Indian Higher Education System Current Scenario" in NAAC sponsored National Seminar on Quality Assurance and Quality Sustenance in Higher Educational Institutions: Challenges and Solutions at J. A. College for Women, Periyakulam from 29 th to 30th September, 2016.

- Enhancement of non-specific immune responses and disease resistance on oral administration of *Nyctanthes arbortristis* seed extract in *Oreochromis mossambicus*. (Aquaculture Research, DOI: 10.1111/j. 2109.2010.02516.x) (International, Wiley Publications)
- Water soluble fraction of *Tinospora cordifolia* leaves enhanced the non-specific immune mechanisms and disease resistance in *Oreochromis mossambicus* Fish & ShellfishImmunology, 29 (2010) 765-772. (International, Elsevier)
- Immunomodulatory effect of Withania somnifera in Oreochromis mossambicus.

  International Journal of Pharmacology and Biological Sciences, Vol. (7) 2013, 23-33.
- Immunomodulatory effect of *Mentha arvensis* in *Oreochromis mossambicus*. Asian Journal of Microbiology, Biotechnology and Environmental Sciences Vol. 16, No. (3):2014:731-738.
- Green Synthesis of Silver Nano particles form Pomegranate (*Punicranatum*) Leaves and Analysis of Anti-Bactreial Activity. International Journal of Advanced Technology in Engineering and Science, ISSN: 2348-7550, Vol No. 03, Issue No. 06, June, 2015, pp. 1-8
- Synthesis of Silver Nano particles Using the Vegetable Extract of *Raphanus Sativus* (Radish) and Assessment of their Antibacterial activity International Journal of AdvancedTechnology in Engineering and Science ISSN: 2348-7550, Vol. 03, Issue No. 05, May, 2015, pp. 207-212
- Evalution of Phytochemical Constituents of Andrographis Paniculata Extracts JAC Journal of Science, Humanities and Management, ISSN: 2347-9868, Volume 2, June, 2015, pp. 121-131"Research Quality in Indian Higher Education System-Current Scenario" JAC Journal of Science, Humanities and Management, ISSN: 2347-9868, Volume 3:3, December, 2016, pp. 66 77
- Antibacterial activity of *Andrographis paniculata* extracts. The Pharma Innovation Journal 2017; 6(5):01-04
- **Pharmacological potential of** *Andrographis paniculata* **extracts.** International Journal of Research inPharmacy and Pharmaceutical Sciences. Volume 2; Issue 2; 2017; Page No. 24-28
- Effects of effluent from electroplating industry on the immune response in the freshwater fish, *Cyprinus carpio* Fish and Shellfish Immunology Pg: 79 (2018) 86-92
- A comparative study on the effect of organic fertilizer panchagavya and vermicompst on the yield of *Abelmoschus esculentus* (ladies finger) International Journal of AdvancedResearch (IJAR) ISSN: 2320-5407, 6(2), 1331-1336

### **Published in Proceedings**

• Suja S. Chandran and Catherine P. Alexander (2009) A study on the relation between thebalanced diet supplemented with cultivated fodder crops on quantity and quality of the milk in exotic cow Holstein Friesian. Proceedings of "Conserve the mother Earth- need of the hour" 10th March 2009 in National Seminar at J. A. College for Women, Periyakulam

#### Refresher course/Orientation course attended

Institution & Place	RC/OC	Duration
Madurai Kamaraj University, Madurai	Refresher course	15 <sup>h</sup> November to 05 <sup>th</sup> Dec, 2007.
Gandhigram Rural Institute. Gandhigram	Refresher course	13 <sup>h</sup> November to 03 <sup>th</sup> Dec, 2002.
Pondicherry University, Pondicherry	Refresher course	13 <sup>h</sup> February-06 <sup>th</sup> March,2000
Madurai Kamaraj University, Madurai	Orientation course	14 <sup>h</sup> July to 11 <sup>th</sup> August, 1995.
Avinashilingam University, Coimbatore.	NSS Orientation training	1 <sup>st</sup> March to 7 <sup>th</sup> March 2016.

### Has held key positions in the college as

Controller of Examinations

Dean of Research

College student union Vice President

Co-ordinator of Minority Cell

Co-ordinator of Fine arts committee

Programme Officer-NSS

### **Question Paper setting and evaluation**

- Has been the member of Board of studies of Department of Zoology, Holy Cross College, Nagercoil
- Has evaluated M.Phil dissertation and conducted M.Phil Viva-Voce for various colleges.
- Has been the Question Paper setter for U.G, P.G. and M.Phil courses for various Colleges and Universities and evaluated the answer scripts
- Has been the External Examiner for semester Practical examination for Gandhigram Rural University and various colleges.

## Webinars attended

2019 - 2022: 20

S.NO	NAME OF THE CONFERENCE	DATE AND ORGANISATION
1	Examinations in wake of COVID-19	May 5, 2020, K.A. (P.G.) College, U.P
2	Sleep disorders and health related challenges: what Evidence-based medicine informs us	May 21,2020, Department of Psychology, Mizoram University Aizawl, Mizoram
3	DNA Barcoding	May 22 -24,2020, Department of Biotechnology, Islamiah College (Autonomous), Vaniyambadi.
4	History of COVID 19 Pandemic	May 22,2020, P.G and Research Centre of History, J,A College, Periyakulam
5	Outcome Based Education	May 22 -29,2020, IQAC, J,A College, Periyakulam
6	Amphibians & Reptiles of Indian Peninsula."	May 25, 2020, Nature Club of Rajapalayam Rajus' College andWildlife Association.
7	Introduction to Cancer and Therapeutics     Metastasis in Cancer     Translational Medicine with an emphasis on Cancer	May 23-25, 2020, Department of Biotechnology, Mizoram University Aizawl, Mizoram
8	Change is the Essence of Life	25 May 2020, ICT Academy, Chennai
9	Hormones and Breast Cancer	May 28,2020, Department of Biotechnology, Mizoram University Aizawl, Mizoram
10	Impact of Emerging Technologies on Life Sciences	May 26 -27 May, 2020, Department of Biochemistry and Biotechnology, Kongu Arts and Science College (Autonomous), Erode.
11	Virtual Workshop on Drug Design and Discovery	May 28 2020 Department of Biotechnology Bansal Institute of Engineering & Technology. Lucknow (U.P.),

12	COVID 19 Reportage: Is the Social Media Complementing the Mainstream Media?	May 29, 2020, Department of Journalism and Mass Communication, Fatima College, Madurai
13	Brief Perspectives of Nanotechnology - Biosynthesis and Bio- Application of Nanoparticles	May 27- 29, 2020, , P.G and Research Centre of Zoology, J,A College, Periyakulam
14	Strategies to control COVID-19	May 30 2020, Department ofBotany, St.Joseph's College (Autonomous), Tiruchirappalli,
15	Analytics in Clinical Trial	May 31 2020KITE-Ai Technologies Learning
16	International virtual lecture workshop onBio- nano interface for COVID 19	May 31 2020, Thiagarajar College, Madurai
17.	Awareness on Intellectual Property.	05 <sup>th</sup> May, 2022, PG and Research Centre of Zoology, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam.
18.	one day National Workshop on "Roadmap of NAAC Assessment and Accreditation for Quality Assurance and Sustenance in Higher Educational Institutions	31 <sup>st</sup> March, 2022,Internal Quality Assurance Cell of The Gandhigram Rural Institute, Gandhigram, Dindigul District.
19.	IP Awareness/ Training program under National Intellectual Property Awareness Mission.	20 <sup>th</sup> September, 2022, PG and Research Centre of Zoology, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, St. Joseph's College for Women, Alappuzha, Kerala and Inter University Centre for IPR Studies, CUSAT, Kochi, Kerala.
20.	International Conference on "Life Science Research and Intellectual Property Rights"	19 <sup>th</sup> and 20 <sup>th</sup> September, 2022, PG and Research Centre of Zoology, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, St. Joseph's College for Women, Alappuzha, Kerala and Inter University Centre for IPR Studies, CUSAT, Kochi, Kerala.

S. No.	TITLE OF THE CONFERENCE/COURSE	DATE AND ORGANISATION
1.	Online National Workshop on "Nutritional Sustenance Through Dairy Products: Initiative And Strategies" to be held on.	June 1, 2020, College of Food and Dairy Technology (CFDT), Tamil Nadu Veterinary and Animal Sciences University, Chennai
2.	Impact of COVID – 19 in Service Sector: Strategies to overcome the Challenges"	June 1 and 2, 2020, Dept of Commerce, Jayaraj Annapackiam College Periyakulam and Auxilium College Vellore
3.	Free Statistical Tool for Research Data Analysis and Research Publication with Special Reference to Citation, Impact Factor and h Index	June 1and 2, 2020, Library, Jayaraj Annapackiam College Periyakulam
4.	Triage Crisis & Universal Remedy - Covid 19, A Perspective	June 3, 2020, NSS, Jayaraj Annapackiam College Periyakulam
5.	How to stay motivated as a research scientist in the present world	June 3, 2020, Department of Microbiolgy, The Standard Fireworks Rajaratnam College for Women, Sivakasi
6.	COVID-19 -Recent updates and current advances	June 3 and 4 2020 Department of Microbiology, The American College, Madurai.
7.	Environment and Ecosystem in the existing COVID-19 Era	June 4 2020, Department of Zoology, Ayya Nadar Janaki Ammal College, Sivakasi.
8.	Salivary metabolomes as a tool for screening cancers at an early stage     Advances in Regenerative Medicine - Through Indo-Japanese Collaboration"	June 5 2020, Department of Biotechnology, Mizoram University Aizawl, Mizoram
9.	Global Perspectives on Protecting our Environment	June 5 2020 Centre for Environmental Studies, Lady Doak College, Madurai.
10.	World Environment Day Webinar Talks	June 6 2020 Wildlife Conservation India
11.	FDP on Synergia to Revitalise, Reform, and Refresh Ourselves as Agents to Ensure Quality Education	June1-7 2020 Department of Business Administration Auxilium College, Vellore and VIT – AP Amaravathi
12.	FDP Webinar on "Future of Examinations: Bloom's Taxonomy and Multiple Assessment Tools"	June 8,2020, GTN Arts College Dindigul

13.	Education 4.0 - Curriculum Orientation	June 9,2020, GTN Arts College
		Dindigul
14.	A Link Between Health Practices and Life Style	June10, 2020, Department of
	Diseases	Biochemistry & Department of
		Physical Education, St.Mary's
		College, Thrissur Kerala
15.	How to overcome stress in today's life	June 12,2020, Department of Food
		Technology, Dhanalakshmi
		Srinivasan Institue of Research and
		Technology, Perambalur.
16.	Research Methodology	June 12& 13, 2020, Loyola College
		(Autonomous), Chennai
17.	Online Examination Tools.	June 21,2020, PG department of
		Computer Science(Shift-II),Bishop
		Heber College,
		Trichy
18.	The Art of Parenting	June 21,2020, Cheran Academy,
		Coimbatore
19.	Yoga Practices	June 21,2020, NCC, Jayaraj
		Annapackiam College Periyakulam
		& APA College, Palani
20.	"E-Content Creation and Online Learning	June16-20, 2020 Mary Matha
	Management System	College of Arts and Science,
		Periyakulam East, Theni Dt
21.	Science Academies' Science Leadership	June 22-28,2020, Science
	workshop	Academies and Central University of
		Punjab,,Bathinda
22.	Basic author workshop-Research Article Writing	June 22,2020, Annamalai
	& Reference Management Using Mendeley.	University, Chidambaram and
		Elsevier
23.	Zoonotic Viral Infections	July 22, 2020 St Xavier's College
		Palayamkottai
24.	Ocean Derived bioactive leads for cancer: A	July 23, 2020 St Xavier's College
	potential area to ponder	Palayamkottai
25.	Human microbiome at the interface of health and	2,3 November 2020 The American
	disease	College, Madurai
26.	Recent trends in Life Sciences	5,6 January 2021, Jayaraj
		Annapackiam College, Periyakulam
27.	National Workshop NIRF India Rankings -	18th and 19th January, 2021.,
	2021 for Higher Educational Institutions	Institute of Academic
	Awareness Programme	Excellence, Telengana