

**UNIVERSITY OF CALICUT  
(IQAC)**

**INFORMATION FOR  
ACADEMIC AND ADMINISTRATIVE AUDIT OF THE DEPARTMENT**

**Year: 2019-20**

**(Information for last five years from 2016-17 to 2020-21)**

1. **Name of the Department:** Department of Computer Science
2. **Year of establishment:** 2011
3. **Courses offered:** PG, M. Phil., Ph.D., Others

<b>Year</b>	<b>PG</b>	<b>M.Phil</b>	<b>Ph.D.</b>	<b>Others</b>
2016-17	M.Sc.Computer Science	M.Phil.Computer Science	Ph.D.Computer Science	nil
2017-18	M.Sc.Computer Science	M.Phil.Computer Science	Ph.D.Computer Science	nil
2018-19	M.Sc.Computer Science	M.Phil.Computer Science	Ph.D.Computer Science	nil
2019-20	M.Sc.Computer Science	M.Phil.Computer Science	Ph.D.Computer Science	Nil
2020-21	M.Sc.Computer Science	M.Phil.Computer Science	Ph.D.Computer Science	nil

**4. Courses introduced during last 4 years:**

MSc(CS) Curriculum revised in 2019 by adding 5 courses in syllabus - Introduction to research methodology, Term paper, Digital image forensics, Data analytics using python and Advanced machine learning.

**5. Does the department have Academic flexibility? If yes since when?**

runs courses under ccss since 2011.

**6. Interdisciplinary programs offered and departments involved:**

Course 'datascience' is chosen as a course in MSc(CS) and syllabus is approved.

**7. Courses conducted in collaboration with other universities and Institutions:**

Research work by Dr.Lajish.V.L. in collaboration with Queen's University, Belfast ( Dr Deepak P, Lecturer, School of Electronics, Electrical Engineering and Computer Science).

**8. Details of programmes discontinued, if any, with reasons: Nil**

9. **Examination System: Annual/ Semester/Choice Based Credit System/ Credit and Grading system/ any other system, specify: Semester**

10. **Participation of the department in the curriculum development for courses offered by the Departments.**

Teachers of this department are chairman/member of board of studies.

Dr.LajishVInvolved in the curriculum development in the year 2014, 2020 for the MSc Computer Science, Master of Computer Applications (MCA) and MPhil Programmes and served in various academic bodies of the University as mentioned below.

-Member, Academic Council, University of Calicut during 17-06-2014 to 16-06-2016, 06-08-2018 to 27-08-2020

-Member, Faculty of Science, University of Calicut during 22-10-2011 to 26-04-2016.

-Chairman, Board of Studies in Computer Science and Applications (PG) during 22-10-2011 to 26-04-2016, July 2020 – till date

-Member, Board of Studies in Computer Science and Applications (PG) during May 2016 to July 2020 – till date

11. **Does the department have different syllabus than the one used by university for PG courses?**

Department runs PGCourse under CCSS whose syllabus differs from other colleges.

12. **Number of teaching posts sanctioned, filled and vacant.**

Designation	Sanctioned	Filled	Filled under CAS
Professor	0	0	0
Associate Professor	1	0	0
Assistant Professor	3	2	0
Total	4	2	0

13. **Faculty profile with name, qualification, designation, experience, nature of appointment (confirmed/ probation/temporary):**

a) **Appointed on Government Sanctioned Post.**

			Teaching/Researc	Nature of

Name	Designation	Qualifications	h Experience	appointment,
Dr.Lajish.V.L.	Assistant Professor	MCA, PhD	13 years	confirmed
Ms.Manjula.K.A.	Assistant Professor &Head	MCA	9 years	confirmed

**b) Appointed from University Fund (Ad-hoc/Guest/contract Faculty). :**

Name	Designation	Qualifications	Teaching/ Research Experience	Nature of appointment
Dr.Vivek.P.	Assistant Professor on Contract basis	MCA, Ph.D.	3year	Contract/Guest
Ms.Shahina.K.M.	Assistant Professor on Contract basis	M.Tech., NET	4year teaching exp	Contract/Guest
Dr.Geena.K.P.	Assistant Professor on Contract basis	MSc Computer Science, Ph.D.	3 year teaching exp	Contract/Guest

**14. List of Visiting Fellows/Teachers, Adjunct and Emeritus Professors, (for last 4 years):.**  
Nil

**15. Percentage of classes taken by temporary/visiting faculty (programme- wise information):** Nil

**16. Programme-wise Student Teacher Ratio: (Average of 4 Years)**

**MSc CS I Year: 5:1 (25+1 seat; 5 faculty members)**

**MSc CS II Year: 4:1 (20 seat; 5 faculty members )**

**MPhil CS: 1:1 (present sanctioned strength:- 1 seat - 1 guide)**

**PhD CS: 4:1 (present sanctioned strength:- 4 seat-1 guide)**

**17. Number of academic support staff (technical) and administrative staff sanctioned, filled and vacant:**

Sr. No.	Posts	Sanctioned posts	Filled	Actual
1	Laboratory Assistant	0	0	0

2	Clerk (office)- Assistant Section Officer	1	1	1
3	Laboratory Attendant	0	0	0
4	Peon	1	1	1
5	Other: Professional Assistant on Daily Wage basis	1	1	1
6	CLR Sweeper -Daily wage basis	1	1	1

**18. Thrust areas of research as identified by the department:**

Computational Intelligence, Digital Image processing, Speech Processing, Data Analytics, Machine Learning

**19. Information about research grants, projects completed and ongoing during the period of last 4 years**

**a) From National funding agencies (like UGC, CSIR, DST, DBT etc):**

Sr. No.	Name of the Principle Investigator (C0-investigator)	Title of the Project	Funding Agency, Duration & date of sanction	Amount	Remarks if any
1	PI: Ms. Manjary P Gangan (research scholar, dept of cs)	DST WOS-A-assisted Research Project entitled "Deep Learning Based Digital Image Forensics Towards the Identification of Forged and PRCG Images"	Funding agency: DST,  Duration and Date: 30.09.2019 to 29.09.2022	Total Rs.27,05,400/-	Mentor: Dr. Lajish.V.L

**b) From International funding agencies: Nil**

Sr. No.	Name of the Principle Investigator (C0-investigator)	Title of the Project	Funding Agency, Duration & date of sanction	Amount (in Lacs)	Remarks if any
	NA				

**20. Funds received at Departmental level through DST-FIST; CSIR, UGC-SAP/CAS,**

**DAE, DBT, BRNS, ICSSR, AICTE, etc : Nil**

<b>Scheme and Funding Agency</b>	<b>Non- Recurring</b>	<b>Recurring</b>	<b>Project Fellow</b>	<b>Total</b>

**21. Research facilities available in the department and recognition received, if any?**

Research lab set for PhD/MPhil research scholars.

Server machines used for Implementing Virtual Lab facility so that research scholars can access their lab machines from anywhere any time.

Computational Intelligence and Data Analytics (CIDA) Lab instituted in the Department. Following research publications are produced out of the collaborative research activity with the Queen's University Belfast, UK.

Anoop K, Deepak P, &Lajish V L (2019), Emotion Cognizance Improves Fake News Identification

Link:<https://arxiv.org/abs/1906.10365>, Presented in the 24th International Database Engineering & Applications Symposium (IDEAS) 2020, South Korea.

Anoop K, Manjary P Gangan, Deepak P, &Lajish V L (2019). Book Chapter Published in Leveraging heterogeneous data for fake news detection, Linking and Mining Heterogeneous and Multi-view Data (pp. 229-264). Springer, Cham,

Link:[https://link.springer.com/chapter/10.1007/978-3-030-01872-6\\_10](https://link.springer.com/chapter/10.1007/978-3-030-01872-6_10)

**22. Special research laboratories sponsored by / created by industry or corporate bodies.: Nil**

**23. Publications:**

<b>Sr. No.</b>	<b>Papers published in peer reviewed journals</b>	<b>Monographs, Books, Chapters in books</b>	<b>Citations</b>	<b>h-index</b>	<b>Impact factor range/ Average Impact factor</b>
1	Lajish V.L et al., A Comparative Study of Lip region Segmentation in Different Colour Space for Lip reading in Indian Context, International Journal of Tomography and Simulation, 33(1) 73-				

	89 2319-3336, 2019				
2	<b>Lajish V.L</b> et al., Durational Characteristics of Allophonic Variations in Malayalam Consonant Phonemes, International Journal of Research in Electronics and Computer Engineering (IJRECE), 7(3), 488-495 2348-2281, 2019				
3	<b>Lajish V.L</b> et al., Automated Identification Of Brain Tumors And Classification Of Tumor Grades From MR Images Using Mi-Graph Based Multiple Instance Learning, International Journal of Imaging Science & Engineering (IJISE), 11(1) 7-14 1934-9955, 2019				
4	<b>LajishV.L</b> et al., Primitive Segmentation of Online Malayalam Handwritten Strokes using Ramer- DouglasPeucker Algorithm and Eight Direction Freeman Code, International Journal of Research in Electronics And Computer Engineering, IJRECE,7(2), pp.87-90, issn:2393-9028,2019				
5	<b>LajishV.L</b> et al., Ontology Based Semantic Information Retrieval Model for University Domain International Journal of Applied Engineering Research 2018, 13(15), 12142-45,				

	0973-9769				
6	<b>LajishV.L</b> et al., Durational Characteristics of Allophonic Variations in Malayalam Vowel Phonemes International Journal of Research in Electronics and Computer Engineering (IJRECE), 2018, 6(3), 1795-1801, 2348-2281				
7	<b>LajishV.L</b> et al., A Quick Review on Features and Classification Techniques in Online Recognition of Handwritten Dravidian Scripts International Journal of Research in Advent Technology (IJRAT) , 2018, 6(11), 3245-3251, 2321-9637				
8	<b>LajishV.L</b> et al., Viseme Set Identification from Malayalam Phonemes and Allophones International Journal of Speech Technology, Springer US (IJST), 2019, 22(4) ,1149-1166 ,1381-2416				
9	<b>LajishV.L</b> et al., Document and Query Similarity				

	Indexing using VSM for Unstructured Documents and Natural Language Queries JAC : A Journal of Composition Theory 2019, Vol XII ,1074-1080 ,0731_6755				
10	<b>LajishV.L</b> et al., Automatic Content Based Classification of Speech Audio using Multiple Instance Learning ( Accepted to be publish at IJRTE, Vol 8(6), in Regular Issue on 30 March 2020) International Journal of Recent Technology and Engineering (IJRTE) 2020 Vol 8(6) 2277-3878 (Online)				
11	<b>LajishV.L</b> et al., Segmentation of Malayalam Handwritten Characters into Pattern Primitives and Recognition using SVM , International Journal of Engineering and Advanced Technology (IJEAT) 2020 9(3) 2249-8958				
1		R Suharshala, Anoop K, <b>Lajish V L</b> , <u>“Cross-Domain Sentiment Analysis on Social Media Interactions using Senti-Lexicon based Hybrid Features”</u> , 3rd			



		International Conference on Inventive Computation Technologies (ICICT), India, IEEE, Nov. 2018, pp.772-777, E-ISBN: 978-1-5386-4985-5, DOI: <a href="https://doi.org/10.1109/ICICT43934.2018.9034272">10.1109/ICICT43934.2018.9034272</a>			
2		Anjali T, Chandini K, Anoop K, <b>Lajish V L</b> , " <a href="#">Temperature Prediction using Machine Learning Approaches</a> ", <i>2<sup>nd</sup> International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICT)</i> , IEEE, Kannur, 5-6 July 2019, pp. 1264-1268, E-ISBN: 978-1-7281-0283-2, DOI: <a href="https://doi.org/10.1109/ICICT46008.2019.8993316">10.1109/ICICT46008.2019.8993316</a>			
3		Manjary P Gangan, Anoop K, <b>Lajish V L</b> , " <a href="#">Indexing and Retrieval of Malayalam News Videos Based on Word Image Matching</a> ", <i>International Conference on Advances in Computing, Communications and Informatics (ICACCI)</i> , IEEE, Udupi, 13-16 September 2017, pp. 1103-1108, E-ISBN: 978-1-5090-6367-3, DOI: <a href="https://doi.org/10.1109/ICACCI.2017.8125989">10.1109/ICACCI.2017.8125989</a>			
4		Anoop K, Manjary P Gangan, P Deepak, and <b>V L Lajish</b> , " <a href="#">Leveraging Heterogeneous Data for Fake News Detection</a> ", <i>Linking and Mining Heterogeneous and Multi-view Data</i> , Springer, Cham, pp. 229-264, January 2019, ISBN: 978-3-030-01871-9, DOI <a href="https://doi.org/10.1007/978-3-030-01872-6_10">10.1007/978-3-030-01872-6_10</a>			
5		<b>Lajish V L</b> , Anoop K, Manjary P Gangan, " <a href="#">The Impact of Online Product Reviews and Social Media Interactions on Consumer Purchase Behaviour Prediction: An Opinion Mining Perspective</a> ", <i>Infinitude: Frontiers of Research in</i>			

		<i>Mathematical and Computing Science, UGC-HRDC, University of Calicut, December 2018, ISBN: 978-93-87398-82-5.</i>			
6		Anoop K, <b>Lajish V L</b> , “മലയാളം ന്യൂസ്മീഡിയോകളുടെ ഉള്ളടക്കാധിഷ്ഠിതമായ സൂചികയും വീണ്ടെടുക്കലും: ഒരു മൾട്ടിമോഡൽ സമീപനം”, “/malayāḷam̄n'yūsvidiyēakaḷuṭeuḷḷatakkād'dhiṣṭhitamāyasūcikayumvīṅṭetu kkalum: orumaḷṭimēādalsamīpanam̄”, <i>Arivum Malayalavumsarvakalashalagaveshanamsamooohathin</i> , November 2017, ISBN: 978-81-928620-1-9			
7		<b>Lajish V L</b> , Reconstructed Phase Space based speech Model for Improved Speaker Identification, UGC-HRDC, University of Calicut, 978-93-87398-81-8, 2019			
8		<b>Lajish V.L et al., /Masthishkarbudha rokanirnayathil kambuterintepank/, Malayala Aikyavedi 978-81-928620-1-9</b>			
9		<b>Lajish V.L et al., /Malayalam padha mathrkakal adisthanamakkiyulla phondialing samvidanavum prayogikathayu/, Malayala Aikyavedi 978-81-928620-1-9</b>			
10		Manjula KA, Chapter titled “bioinspired computing for efficient optimization image processing tasks” in book “emerging trends in computer technology” published by GRABS educational trust ISBN:9788193692929			
11		Manjula KA, Karthikeyan P, “role of ICT in higher education” in book published by APH publishing corporation ISBN : 9789388316088			
12		Manjula KA, article in Proceedings of one day national conference on			

		Green computing organized by NGM college Pollachi . “Role of swarm intelligence techniques in image processing” September 2017,ISBN:9789387009059			
13		ManjulaKA, Proceedings of international conference on smart systems organized by Ajeenkya DY Patil university -“optimized approach for image enhancement” ,27/9/2018-28/9/2018.			
14	Manjula KA, co-author-Journal JMRA-“Venture capital in Indian entrepreneurial eco system” issn:23942770				
15		Manjula KA, improved filtering of noisy images by combining average filter”, ISSN:21945365, Proceedings of CISC 2020,”Springer.			
16		ManjulaKA,KarthikeyanP, “gold price prediction using ensemble based ML techniques”, proceedings of ICOEI2019, ISBN:9781538694398, IEEE.			

**24. Details of patents filed & granted and income generated:**

1. Name of the Patenter :

1)Lajish.V.L and Sunil Kumar Kopparapu, Patent Number: No.318427 (Indian), Title of the patent:ONLINE SCRIPT INDEPENDENT RECOGNITION OF HANDWRITTEN SUB-WORD UNITS AND WORDS, Year of Award of patent:August 19, 2019.

2)Name of the Patenter :Sunil Kumar Kopparapu , Sanjay Kimbahune and Lajish.V.L. Patent Number:No. 337050, (Indian)Title of the patent:DETECTION OF SPURIOUS/COUNTERFEIT MEDICINES,Year of Award of patent:May 19, 2020.

**25. Consultancy services provided, name of the teacher/s and income generated: NIL**

Sr. No.	Year	Name of the teacher	Nature of consultancy	Funds generated (In Lakh)

**26. Details of teachers invited as resource persons for Refresher courses, Orientation courses, Seminars, Workshops, Conferences at national and international levels.**

**Dr.Lajish.V.L.:-**

1. Served as Jury member for the Reboot Kerala Hackathon 2020 programme of the Govt of Kerala on 22-02-2020.
2. Served as a member of the registration committee formed in connection with the conduct of Indian History Congress at Kannur University.
3. Served as a resource person for delivering an invited talk in the Orientation Programme arranged for the Higher Secondary students of Kozhikode district held on 28th September 2019 at Govt. HSS, Koyilandy.
4. Served as a resource person in the induction and orientation programme for the MCA/MSc (CS) fresher students at the Department of Information Technology, Kannur University on 1st July 2019.
5. Acting as the member of the Board of Studies and the Research Advisory Committee Meeting at Farook College (autonomous), 2019-20.
6. Participated in the Young Scholars Congress 2019 held at University of Kerala Campus during 16-17th March, 2019.
7. Attend the NSS function on 6.12.18 at Attappady Govt. College in distributing the School Kits to the tribal students of the region which is sponsored by the students\alumni of the Department of Computer Science as a token of support to the NSS unit at the tribal village.
8. Served as the course co-ordinator of the Refresher Course in Computer Applications for College/University teachers organised by the UGC-Human Resource Development Centre (HRDC), University of Calicut from 14.11.2018 to 04.12.2018 at HRDC, Calicut University campus.
9. Attend the National Seminar on Big Data Analytics using Hadoop organised by the Department of Computer Science, Sreekrishnapuram V. T. Bhattathiripad College on 18th of September 2018 as the Guest of Honour to deliver the Keynote Address.
10. Attend the adalath arranged by the District Collector, Kozhikode, at Vatakara Town hall on 29th August 2018 as the nodal officer in connection with the issuance of the duplicate mark list\certificates for those who have lost\damaged it in the recent flood\landslide happened in Kerala.
11. Served as a Chief Guest & Resource person at the Inaugural Ceremony of the Computer Science Association at Sahridaya College of Advanced Studies, Thrissur on 9th August 2018.
12. Served as a resource person for the Induction & Orientation Programme FOCUS 2018 arranged for the newly admitted MCA students at the Department of IT, Kannur University on 3rd August 2018
13. Acting as a member of the technical committee for the implementation of office automation at Kerala Kalamandalam, Cheruthuruthi.
14. Nominated as a member of the technical committee at Kannur University.

15. Acting as a member of the expert committee at GuruvayoorDevaswam.

16. Serving as the member of the technical committee at Thunjathezhuthachan Malayalam University.

Manjula KA,delivered invited talk at Govt.Womens' Polytechnic college, Kottakkal titled "databases – current trends and developments" on 15/12/2017 as part of 'visiting faculty programme'.

**27. Details of teachers participated in Refresher courses, Orientation courses, Seminars, Workshops, Conferences at national and international levels.(participant, presented paper, chaired the session)**

Sr No:	Name of teacher	Conference/ workshop details	Participated/ presented	
1	Dr.Lajish.V.L	Participated in the 11th Refresher Course in Computer Science being conducted by HRDC from 15th to 28th January, 2020 at HRDC, Calicut University campus.	Participated	
2	Dr.Lajish.V.L	Two day National Seminar on Deep Learning at Department of Information Technology, Kannur University on 07-03-2020.	presented	
3	Dr.Lajish.V.L	Delivered a Technical session on "Innovations in Machine Learning" at the Department of Computer Science, Dayapuram Arts and Science College for Women on 30-10-2019	presented	
4	Dr.Lajish.V.L	CIDA 2019 First National Conference on Computational Intelligence and Data Analytics 26 - 27 February 2019, Topic: Recent Research Developments and New Directions in Speech Processing	presented	
5	Dr.Lajish.V.L	Five Day National Workshop on Artificial Intelligence, Sponsored by AICTE Training and Learning (ATAL), Organized by Department of Computer Science, School of Physical Sciences, Central University of Kerala, Kasargod, 1st October 2019	presented	

6	Dr.Lajish.V.L	Delivered a technical session on ‘ML Story: Perceptron to Deep Neural Nets’ in the Five Days Workshop on Artificial Intelligence at Central University of Kerala, Kasaragod, on 1st October 2019.	presented	
7	Dr.Lajish.V.L	Delivered a Keynote address in the FDP on Research and Application Perspectives of AI and Machine Learning at Department of Electronics and Communication Engineering, MES College of Engineering, Kuttippuram on 8th July 2019.	presented	
8	Dr.Lajish.V.L	Served as a resource person in the Three Day National Workshop on Sanskrit and Language Technology organised by the Department of Sanskrit Sahitya, SreeSankaracharya University of Sanskrit, Kalady on 14th February 2019.	resource person	
9	Dr.Lajish.V.L	Served as a resource person to chair the paper presentation session as part of the Three day National Seminar on Cyber Security and Digital Forensics on 18-01-2019 at Kannur University.	resource person	
10	Dr.Lajish.V.L	Delivered a keynote address in the International Conference on Robotics on 04-01-2019, at EMEA College of Arts and Science, Malappuram.	presented	
11	Dr.Lajish.V.L	Three Day National Workshop on Deep Learning: Bridging Theory and Practice (DLBTP) Organized by Department of Computer Science University of Calicut, Kerala, Talk: “Neural Networks and Machine Learning Refresher”, 22 - 24 February 2018.	presented	
12	Dr.Lajish.V.L	2nd Int. conf. on intelligent computing, instrumentation and control technologies (ICICT-2019), at VimalJyothi Engineering College, Kannur, 06/07/2019		

13	Dr.Lajish.V.L	IEEE Second Int. Conf. on Intelligent Computing and Control Systems (ICICCS), 14-15 June 2018 , Madurai, India		
14	Dr.Lajish.V.L	Three Day National Workshop on Sanskrit and Language Technology, 14/02/2019		
15	Dr.Lajish.V.L	7th National Conference on Indian Language Computing (NCILC 2017), 1718 Feb, CUSAT, Cochin, 2017		
16	Manjula KA	One week short run course on 'EContent development' organized by MHRD-TLC,University of Calicut,26/8/2019 – 1/9/2019.	Participated	
17	Manjula KA	One day workshop on "data analytics in R using statcraft" organized by kannur university on 5/1/2019.	Participated	
18	Manjula KA	2 days workshop on linear models by dept of statistics,University of Calicut on 15/3/2019 to 16/3/2019.	Participated	
19	Manjula KA	3 days National seminar on recent trends in statistics organized by dept of statistics, University of Calicut on 13/2/108 to 15/23/2018	Participated	
20	Manjula KA	2 day workshop on ' revised framework of NAAC and quality systems in higher education" organized by IQAC,University of Calicut 5/3/2019	Participated	
21	Manjula KA	3 days national seminar on "recent trends in topology " organized by dept of statistics, University of Calicut on 7/2/2019-9/2/2019	Participated	
22	Manjula KA	2 days hands-on-training workshop on LMS-Moodle organized by IQAC, University of Calicut on 7/3/2019 to 8/3/2019.	Participated	
23	Manjula KA	FDP on machine learning organized by Bharathiar University on 30/1/2019 to 1/2/2019	Participated	
24	Manjula KA	3day workshop on "how to avoid plagiarism" organised by Dept of library & information	Participated	

		science, University of Calicut on 23/3/2015 to 25/3/2015.		
25	Manjula KA	Int.national conference SICIETS 2018 organized by Sreenivias institute of technology & Management on 28/10/2018.title "A novel method for denoising images"	Presented	
26	Manjula KA	2day national conference on big data and datascience organized by BBCIT college on 27/10/2017 to 28/10/2017.title "bio inspired computing techniques and applications in finance"	Presented	
27	Manjula KA	Int national conference on trends in electronics and informatics on 23/4/2019 to 25/4/2019 organized by SCAD college of Engineering.title "Gold price prediction using ensemble based ML "	presented	
28	Manjula KA	ManjulaKA, Presented paper at one day national conference on Green computing organized by NGM college. September 2017. title "Role of swarm intelligence techniques in image processing"	presented	
29	Manjula KA	ManjulaKA, presented at int national conference on smart systems organized by Ajeenkya DY Patil university,27/9/2018-28/9/2018. title:-"optimized approach for image enhancement"	presented	
30	Dr.Vivek P.	Five day workshop on Artificial Intelligents organized by Department of computer science, Central University of Kerala titled "Machine learning for speech analytics"	presented	
31	Dr.Vivek P.	At Sullamussalam Science College, Areacode titled "Perception and attitude towards research projects"	Presented	
32	Dr.Vivek P.	Three-day Workshop on Computational Linguistics, at the ThunchathEzuthachan Malayalam University titled " Python Programming for Malayalam Language Computing"	Presented	
33	Dr.Vivek P.	3 day IQAC Seminar, GNOSIS II 2016, at Mahatma Gandhi College, Iritty titled "Soft Computing Techniques for Intelligent	Presented	



		Systems and Robotics”		
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**28. Participation of teachers in various academic activities as members of committees at University level, State level, National level, International level bodies. (give details)**

**Dr.Lajish V.L**

1. Director, Centre for eLearning, University of Calicut during 14-12-2020 – till date.
  2. Director, Calicut University Computer Centre, during 5th July 2017 - Present
  3. Member, Academic Council, University of Calicut during 27-09-2011 to 26-09-2013, 27-09-2013 to 20-10-2013 and 17-06-2014 to 16-06-2016, 06-08-2018 to 27-08-2020
  4. Member, Faculty of Science, University of Calicut during 22-10-2011 to 26-04-2016.
  5. Chairman, Board of Studies in Computer Science and Applications (PG) during 22-10-2011 to 26-04-2016, July 2020 – till date
  6. Member, Board of Studies in Computer Science and Applications (PG) during May 2016 to July 2020 – till date Acting as a member of the technical committee for the implementation of office automation at Kerala Kalamandalam, Cheruthuruthi.
  7. Nominated as a member of the technical committee at Kannur University.
  8. Acting as a member of the expert committee at GuruvayoorDevaswom.
  9. Serving as the member of the technical committee at Thunjathezhuthachan Malayalam University.
- Manjula K A, member, board of studies( PG – Computer science),University of Calicut ( University level).
- Manjula K A, member of academic committee of CCSS,University of Calicut( University level)

**29. Details of teachers appointed/nominated on Editorial Boards at university, state, national and international levels.**

Dr Lajish V.L act as the member of the Editorial Board of the Calicut University Research Journal (CURJ).

**30. Awards / Prizes and recognitions received by teachers at university, state, national and international level:**

- (a) Best Poster Presentation (Scientist) Award in Mathematical and Statistical Sciences in the 32nd Kerala Science Congress held at Yuvakshetra Institute of Management Studies,

Palakkad, during 25<sup>th</sup> - 27<sup>th</sup> January 2020  
 Poster: “Anomalous Weather Prediction in Kerala using Machine Learning Techniques”,  
 Anjali T, **Lajish V L**, Anoop K, Manjary P Gangan,

(b) Best Paper Award in the 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT) held at VimalJyothi Engineering College, Kannur, 5<sup>th</sup> - 6<sup>th</sup> July 2019  
 Paper: “Temperature Prediction using Machine Learning Approaches”, by T Anjali, K Chandini, K Anoop, **Lajish V L**.

(c)**Dr.lajish V.L** received the **Dr.APJ Abdul Kalam Life Time Achievement National Award – 2017** for the outstanding excellence and remarkable achievements in the field of Teaching and learning by IRDP Group of Journals, Chennai, India

### 31. Awards and Prizes received by students at university, state, national and international level:

(a)Best Poster Presentation (Scientist) Award in Mathematical and Statistical Sciences in the 32nd Kerala Science Congress held at Yuvakshetra Institute of Management Studies, Palakkad, during 25<sup>th</sup> - 27<sup>th</sup> January 2020  
 Poster: “Anomalous Weather Prediction in Kerala using Machine Learning Techniques”,  
**Anjali T,Lajish V L, Anoop K, Manjary P Gangan,**

(b) Best Paper Award in the 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT) held at VimalJyothi Engineering College, Kannur, 5<sup>th</sup> - 6<sup>th</sup> July 2019  
 Paper: “Temperature Prediction using Machine Learning Approaches”, by **T Anjali, K Chandini, K Anoop,Lajish V L**

### 32. Details of Seminars/ Conferences/Workshops organized at university, state, national and international level and the source of funding with details:

Name of Conference/ Seminars / Workshops	Funding agency	No. of Participants	University/ State/ National/ International	Dates
"National Workshop on Deep Learning; Bridging Theory and Practice (DLBTP)" [ Workshop Co-ordinator: Dr.Lajish.V.L.;	State Plan Grant	120	National	22.02.2018 to 24.02.2018
Seminar on “softskills-key to employability and career	University (Non Plan)	94	University	09/03/2018

development" on 9/3/2018 co-ordinated by ManjulaKA				
RUSA sasthanayan open house golden jubilee exhibition organized by Department of CS, University of Calicut, co-ordinated by ManjulaKA	RUSA	150	University	07/03/2018 to 09/03/2018-
Two days National Conference on Computational Intelligence and Data Analytics- 2019 (CIDA'19) [Dr.Lajish.V.L.- Co-ordinator]	State Plan Grant	200	National	26.02.2019 to 27.02.2019
Organized a Two day hands on training workshop on Learning Management System MOOOLE for the faculty members of the Calicut University Teaching Departments at Department of Computer Science, University of Calicut. [Dr.Lajish.V.L.- Co-ordinator]	University (Non Plan)	20	University	07.03.2019 to 08.03.2019
refresher course in computer science organized by UGC-HRDC,University of Calicut, co-ordinated by ManjulaKA	UGC	45	National	15/01/2020 - 28/01/2020
Two day International Awareness Webinar on Understanding misinformation: Intervention Strategies and Ideas ( Workshop Co-ordinator: Dr.Lajish.V.L)	University (Non Plan)		International	19-02-2021 - 20-02-2021
Faculty Training Programmes on Online Hands-on Training Programme on Learning Management System - MOODLE Phase III ( Workshop Co-ordinator: Dr.Lajish.V.L)	University (Non Plan)		University	05/03/2021- 13/03/2021
Faculty Training Programmes on Online Hands-on Training Programme on Learning Management System - MOODLE Phase II (Workshop Co-	University		University	26-06-2020 - 04-07-2020

ordinator: Dr.Lajish.V.L	(Non Plan)			
Faculty Training Programmes on Online Hands-on Training Programme on Learning Management System - MOODLE Phase I ( Workshop Co-ordinator: Dr.Lajish.V.L	University (Non Plan)		University	25/05/2020 - 08/06/2020
refresher course in computer science organized by UGC-HRDC,University of Calicut , coordinated by Manjula KA	UGC	52	National	10/8/2016-30/8/2016
Webinar on “Research methodology in CS” organized by department of CS on 25/5/2021, co-ordinated by ManjulaKA	university	53	University	25/5/2021
Webinar on “An insight into constitutional obligations” on 25/5/2021 organized by department of CS , co-ordinated by ManjulaKA	university	52	University	25/5/2021
Webinar on “IT Career opportunities and requirements” on 28/5/2021 organized by department of CS co-ordinated by ManjulaKA	---	51	University	28/5/2021
Webinar on “Improving performance of websites” on 29/5/2021 organized by department of CS and department alumni association	--	55	univeristy	29/5/2021
Career opportunities in IT in association with UGC Career and Counselling cell UEI&GBco-ordinated by ManjulaKA	UGC	50	university	26/8/2016
Seminar on Android programming - co-ordinated by ManjulaKA	--	50	university	12/8/2016

### 33. Student profile programme-wise at PG

PG	Applications Received	No. of students Admitted	Seats Available	Male	Female	Total	Year
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M Sc	502	23	20+extra sanctioned	6	17	23	2016-2017
Computer							
Science	555	22	20+ extra sanctioned	5	17	22	2017-18
	1061	20	20+ extra sanctioned	3	17	20	2018-19
	663	20	20+ extra sanctioned	5	15	20	2019-20
	970	26	25+ extra sanctioned	0	26	26	2020-2021

**34. Year-wise results of students at PG:**

PG	Year	Appeared	Passed	Pass %	Grade %			
					A+	A	B+	B
	2016-17(2014 admn)			100				
MSc	2017-18 (2015 admn)	19	18	95%	4	12	2	--
Computer								
Science	2018-19 (2016 admn)	23	19	83%	2	11	3	3
	2019-20 (2017 admn)	22	20	91%	5	10	5	--

	2020-21 (2018admn)	19	17	89%				
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**35. Information about M. Phil. programme:**

Year	Applications Received	No. of students admitted	Male	Female	Total
2016-2017	30	2	0	2	2
2017-18	30	2	0	2	2
2018-19	29	3	0	3	3
2019-20	15	1	0	1	1
2020-21	34	1	1	0	1

**36. Information about Ph. D. programme :**

Year	Applications Received	No. of students admitted	Male	Female	Total
2016-17		2	1	1	2
2017-18	No vacancy	0	0	0	0
2018-19	No vacancy in DCS (36 registration under UoC-2019 notification)	0	0	0	0
2019-20	No vacancy in DCS (59 registration under UoC - 2020 notification)	0	0	0	0
2020-21	No vacancy in DCS	0	0	0	0

**At present, there are 4 PhD research scholars continuing in dept + 1 scholar(thesis submitted).**

**37. Number of students awarded M.Phil., Ph.D, Degree :**

Year	M.Phil	Ph.D.	Male	Female	Total
2016-17					
2017-18	0	1	1	0	1
2018-19	2	1	1	2	3
2019-20	5	1	1	5	6
2020-21					

**38. Diversity of Students : (Year-wise)**

Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
<b>UG - No UG course under DCS</b>	NA	NA	NA	NA
PG2016-17 admn	86.36%	9.09%	4.94%	0 (1 foreign student; but graduated from Tamilnadu university)
PG 2017-18 admn	100%	0	0 (1 lakshadweep student; but graduated from University of Calicut)	0 (1 foreign student; but graduated from University of Calicut)
PG 2018-19 admn	100%	0	0	0
PG 2019-20 admn	100%	0	0	0
PG 2020-21 admn	92.3%	3.84%	3.84%	0
MPhil 2016-17admn	100%	0	0	0
M.Phil 2017-18 admn	100%	0	0	0
M.Phil 2018-19 admn	100%	0	0	0
M.Phil 2019-20 admn	100%	0	0	0
M.Phil 2020-21 admn	100%	0	0	0
<b>Ph. D. - No PhD CS admission after 2016</b>	NA	NA	NA	NA

**39. Number of students cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give Category wise data. (Details in the google spreadsheet shared by IQAC to dept.)**

Year	MPSC/UPS C	NET/ SET	GATE	Other Exams	Total
2016-17					
2017-18		---			
2018-19		NET-5; JRF-1 (2 General; 3 OBC; 1 SC)			6
2019-20		NET-9 (1 General; 7 OBC; 1 SC)			9
2020-21					

**40. Student progression/ placement record: Number/ percentage of students proceeded for higher studies Number/percentage of students placed:**

Year	% proceeded for higher studies		% of students placed
	UG to PG	PG to Ph.D./ M.Phil	
2016-17	NA	M.phil-1	5%(1)
2017-18	NA	M.Phil-1	
2018-19	NA	M.Phil-3	
2019-20	NA	M.Phil-1	30%(6)
2020-21	NA	M.Phil-1,Ph.D-1	35%(7)

**41. Diversity of Faculty:**

Teaching faculty	%
from the same university	80%
from other universities within the State	20%
from other States	nil
from outside the country	nil



**42. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. / D.Lit.: 1 (but, before the assessment period)**

nil

**43. Present details of departmental infrastructural & other facilities with regard to**

- a) Central Library Books and Journals, etc, relevant to Department : --  
 b) Departmental Library (books, journals etc.) : 1599  
 c) Computers and Internet facilities for staff : 3 Desktop with Internet connection  
 d) Total number of class rooms : 3  
 e) Class rooms with ICT facility (internet facility) : 3  
 f) Students' laboratory : 1 PG lab  
 g) Research laboratories : 1 Research lab  
 h) Seminar Hall : 1  
 i) Smart class room : 2  
 j) Any other facility LCDs,

**44. List of post-doctoral students and Research Associates : nil**

**a) Post-doctoral. Students- Nil**

Sr. No.	Name of the Faculty	Post-doctoral Students	Research Topic
1			
2			

**b) Research Associates:**

**Research scholars under Dr.Lajish.V.L.:**

SI No.	Name of the Research scholar	Topic of research	Date of registration
1.	Baiju K.B	Pattern Recognition Studies for Machine Recognition of Online Malayalam Handwritten Characters	14/11/2012
2.	Reshma P.K (submitted thesis)	Soft Computing Approaches to Domain Specific Information Retrieval in Semantic Web	17/11/2012
3.	HabeebathKakkattup uthiyottil	Semantic Analysis with Machine Learning Approaches for Automatic Speech Recognition	26/03/2014
4.	Anoop K	Big Data Analytics on Web Data for Social Emotion Discovery Using Machine Learning Techniques	29/02/2016

5.	Manjary P Gangan	Image Forensics for Digital Image Forgery Detection	01/11/2016
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Sr. No.	Name of the Faculty	Research Associates	Research Topic
1	NA		
2			

45. **Number of post graduate students getting financial assistance from the university/state / central government** :Egrantz(SCDD/Fisheries) :- 34 students (year 2021)

**46. Curricular Aspects:**

a) **Does the faculty take initiative in the curriculum development process?** yes

b) **Is curriculum suitable to make students globally competitive in the**

**subject? If yes, substantiate.**A few students are placed in very good positions – industry as well as academic posts.

c) **Does the department offer a program with sufficient no. of electives options.** yes

d) **While framing curriculum, is feed-back taken from stakeholder's viz. Students/Alumni/Parents/Employers considered?**Feedback collected from students, alumni and teachers and will be considered in the next curriculum revision.

e) **What is the frequency of curriculum revision? (3/4/5 years or more)-**within 3-5 years

f) **Does the curriculum have emerging thrust areas, including interdisciplinary areas? (If yes, elaborate)** –Yes, Machine learning, Data analytics, Image processing, data science.

**47. Teaching-Learning, Evaluation.**

1) **Number of teachers preparing & following Academic Teaching plan:-**5

2) **How many teachers use the following teaching methods:**

a) **Interactive lecture method using blackboard, Group discussions, Problem solving, Seminars.:** *All teachers (5)*

b) **Use ICT methods to support lectures:** *All teachers (5)*

3) **Does the Department have Peer review processes? If yes, are the suggestions effectively used to improve the teaching quality?**Course rating and teachers feedback by students are discussed in the staffmeeting last year onwards.

4) Does the department have any mechanism to ensure that entire syllabus is completed?byAnalysing the student feedback.

5) Do you offer Bridge/Remedial courses? If yes, Give details.Offered bridgecourse in the year 2021.identified students in different categories and decided to support students individually.

6) What is the method for conducting internal evaluation? as per ccss regulations.

#### 48. Teacher Performance:

1) Whether the performance of the teacher is assessed by the students? If yes, are the feedback reports analysed and suggestions communicated to teachers?

yes

2) Number of teachers getting a) Very Good \_\_\_\_ b) Good ----

c) Average \_\_\_\_\_ remarks from students. Teacher rating on this aspect is to be analysed.

3. Whether suggestion boxes are kept in the department to get suggestions from students on infrastructural facilities available in the department?

will implement soon

4) Are the suggestions received from students used for improvement of facilities?NA

5) Do teachers submit Self-Appraisal Reports? Are these reports appraised by HOD and forwarded to the university with comments?Yes, PBAS submitted by teachers are forwarded through HoD to university. Annual submission yet to be practised.

6) What is the individual faculty wise h index?

Dr.Lajish VL -10, Manjula KA-3, DrVivek.P-2(as per google scholar citation records)

7) Give details of “beyond syllabus scholarly activities” of the department – Seminars/Workshops/webinars are organized on relevant topics for effective knowledge sharing, talks delivered by faculty members as extension activity, celebration of days of national importance and organization of activities related to it.

#### 49. List the distinguished alumni of the department (maximum 10)

SI No	Year	Name of student placed and contact detail	Program graduated from
1	2020	Umaibanu M(Assistant Professor in Computer science,KeralaGovt)	MSc(CS)

2	2020	SmrithyK(Assistant Professor in Computer science,KeralaGovt)	MSc(CS)
3	2016	Santhosh KP(Higher secondary school Teacher)	MPhil(CS)
4	2017	Dr.Benson CC(Higher Secondary School Teacher)	PhD(CS)
5	2020	Neelima S - General banking officer - JMG Scale I	MSc(CS)
6	2020	Nandakumar E(Senior software engineer)	MSc(CS)
7	2020	Binoy KP(Senior software engineer)	MSc(CS)
8	2018	Kavya Anju(Station Master, Railway)	MSC(CS)
9	2020	Savad P P(Node JS Developer in CAPO International Trading L.L.P)	MSc(CS)
10	2017	Jinsha(Website Developer in Webolop Digital Solutions LLP.)	MSc(CS)

**50. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

1. Two day International Awareness Webinar on Understanding Misinformation: Intervention Strategies and Ideas during 19-02-2021 -20-02-2021 (Webinar Coordinator : Dr Lajish V.L)
2. Two days National Conference on Computational Intelligence and Data Analytics- 2019 (CIDA) during 26/02/2019-27/02/2019 (Dr.Lajish.V.L.- Co-ordinator)
3. National Workshop on Deep Learning; Bridging Theory and Practice (DLBTP) during 22/02/2018-24/02/2018 (Workshop Co-ordinator: Dr.Lajish.V.L.; Organizing

chair Ms.Manjula.K.A.)

4. National Workshop on Emerging Trends in Information Technology in University management in association with Association of Indian Universities during 14-16th December 2016 at University of Calicut. (Workshop Coordinator :Dr.Lajish V.L)
5. National Conference on Recent Trends in Computational Intelligence and Image Processing (RCIP 2016) during 22-23rd February 2016 at University of Calicut.

**51. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Based on the performance of the students in the internal and external examinations of University\Competitive Examinations\Publications and their achievements and placements.

**52. Highlight the Special facilities (if, any) of the Department.** Good computing facilities like Deep learning workstation are available in research lab.

**53. Highlight the unique features of the department.** Utilizing LMS in teaching-learning, and students are provided with sufficient learning materials.

**54. State the Innovative practices adopted in the department.**

- Instituted a research lab named Computational Intelligence and Data Analytics (CIDA) Lab
- frequent video lecture streaming and discussion on various topics of study – managed by students.
- Using Learning Management System Moodle to support teaching learning process.
- Effectively utilizing the e-Learning facilities provided by NPTEL and SWAYAM MOOCs
- Providing facilities for internships for the students inside and outside the Department
- Training of Software Packages Like LaTeX for Students

**Highlight the participation of students and faculty in extension activities.**

1. Course co-ordinator for the SWAYAM MOOC
2. Faculty: Dr Lajish VL

Course Name: Art of C Programming (4 credit course)

Number of Learners enrolled: 1,587 (1stRun), 36,226 (2nd Run), 16,410 (3rdRun)

Developed for the Consortium for Educational Communication (CEC), New Delhi under UGC in 2018.

2. Dr .Lajish VL, Editor of e-Content for the SWAYAM MOOC  
Course name: IT Fundamentals-Developed for the Consortium for Educational Communication (CEC), New Delhi under UGC in 2019.
3. Dr.Lajish VL, Director, Centre for e-learning, University of Calicut.

As an activity of Center for e-Learning, the Learning Management System (LMS) under the Open Source based MOODLE platform is implemented to support e-learning integrated with the Big Blue Button for the conduct of LIVE classes. The teaching, learning and assessment activities of the University teaching Departments are now carried out by the support of this facility especially during the During Covid-19 Lock down periods(director : Dr Lajish VL)

4. Dr.Lajish VL, Organised Faculty Training Programmes on Online Hands-on Training Programme on Learning Management System - MOODLE in Three Phases (during 25 May 2020 to 08 June 2020, from 26th June 2020 to 4th July 2020 and from 05th March 2021 to 13 March 2021) for the faculty members of the University teaching Departments and the School of Distance Education.

#### **55. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

##### **(a) Strengths:**

As a University Department we are proficient to contribute towards the advancement of the society at large. We also ensure our sincere effort to offer the best in terms of academic programmes, research activities and infrastructure. The Department with dynamic faculty members attracts the best of students for its Masters and Doctoral programmes.

##### **(b) Weakness:**

Lack of permanent faculty\technical staff resources.

##### **(c) Opportunities :**

Plenty of research and job opportunities in Computer Science, IT, and Software Engineering and related areas. Department is trying to make use of these opportunities such as

Collaborative research with Govt. bodies\National\International Institutions and Industry so as to

- \* Act as a Technology Partner and collaborate in setting up research labs
- \* Development of scientific and application oriented research programmes in the fields of Computer Science & Information Technology.
- \* Share domain knowledge in Computer Science and allied areas.

##### **(d) Challenges :**

- \* Frequent revision of the syllabus to include latest technologies and emerging areas of studies.
- \* Getting industrial support\collaboration.
- \* Setting up infrastructural\research facilities at par with international standards.

#### **56. Future plans of the department:**

to provide

- Highest quality Post Graduate and Doctoral education as per international standards.
- best research facilities with the upgraded laboratory facilities from time to time.
- Strong partnerships with industries, government agencies, professional societies and local communities.
- Extension and consultancy services to government, private, public and industrial sectors and research.

**a. Long term plans-**

- Collaboration with Leading Research Institutions in India and abroad
- Nurture Programmes for Higher Secondary and Graduate students
- Exchange of students and faculty
- Funded Research Projects
- State-of-the-art research facilities with the upgraded laboratory facilities from time to time.
- Build strong partnerships with industries, government agencies, professional societies and local communities.

**b. Short term plans**

- Conduct Regular workshops in emerging areas/technologies
- Extension and consultancy services to government, private, public and industrial sectors.
- Starting Online Certificate Programmes in Machine Learning and Data Analytics .

**Declaration by the Head of the Department/Institution:**

**I am aware that the above information provided by the department will be validated by the AAA committee during the visit.**

Sd/-

**Head of Department**

## **Format for preparing the faculty profile:**

(Provide the information for last five years from 2016-17 to 2020-21)

1. Name of the faculty: Dr.Geena K P
2. Name of the Department: Computer Science
3. Educational qualifications: PhD, Msc.Computer Science
4. Present position: Guest Teacher
5. Address for correspondence: Koorapoyil(Ho), Thachampoyil(p.o),Thamarassey(via)
6. E-mail and contact number:geena.gopal@gmail.com,9447539406
7. Specialization: Image Processing
8. Total teaching experience:4 year
9. Courses taught:
10. Research experience:6year
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree.
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.
15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.
17. Innovative processes developed in teaching and learning.
18. Participation in curricular development:
19. Participation in co-curricular and extra-curricular activities.
20. Refresher and Orientation courses attended:
21. Examination /Evaluation reforms initiated:



22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.
23. Books published: with ISBN No., Without ISBN No., Chapters in books.
24. Patents Applied/Granted: National. International, commercialized:
25. Consultancy services provided and revenue generated:
26. Conferences ,seminars, symposia and workshops organized as convener/coordinator:
27. Number of collaborations:
28. Awards /recognitions received: International, National, State, University level.

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13, 14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

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### Format for preparing the faculty profile:

(Provide the information for last three years from 2016-17 to 2020-21)

- 1.Name of the faculty : Dr Lajish V.L
- 2.Name of the Department : Department of Computer Science
- 3.Educational qualifications : MCA, PhD
- 4.Present position : Assistant Professor & Head
- 5.Address for correspondence : Department of Computer Science,  
University of Calicut, Kerala – 673 635
- 6.E-mail and contact number : lajish@uoc.ac.in, 9495793094
- 7.Specialization : Computational Intelligence, Digital  
image\ speech processing, Data Analytics
- 8.Total teaching experience : 9 years (regular), 4 years (on contract)
- 9.Courses taught : MSc Computer Science, MPhil and PhD
- 10.Research experience : 14 years after PhD
- 11.Major research projects completed: Title of the project, Date of sanction and Duration,  
Grant received, Funding agency. PI or Co-PI.  
NIL
- 12.Minor research projects completed: Title of the project, Date of sanction and Duration,  
Grant received, Funding agency. PI or Co-PI.  
NIL
- 13.Number of students awarded Ph.D. degree: Name of the student, topic of research, date  
of registration, date of declaration of Ph.D. degree.

SI No.	Name of the student	Topic of research	Date of registration	Date of declaration of Ph.D. degree
1.	Vivek P.	Hidden Markov Model Based Keyword Spotting for Malayalam Speech Analytics	07/11/2012	28/05/2018
2.	Benson C. C.	Brain Magnetic Resonance Image Classification Using Multiple Instance Learning and Tumor Segmentation Based on Watershed Algorithms	23/11/2012	18/06/2018
3.	Sandesh E. PA.	Speaking Lip Animation based on Active Appearance Models: A Unified Framework for Malayalam Visual Speech Synthesis	26/12/2012	11/12/2019

14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.

SI No.	Name of the student	Topic of research	Date of registration
1.	BaijuK.B	Pattern Recognition Studies for Machine Recognition of Online Malayalam Handwritten Characters	14/11/2012
2.	Reshma P.K	Soft Computing Approaches to Domain Specific Information Retrieval in Semantic Web	17/11/2012 (Thesis Submitted)
3.	HabeebathKakkattuputhiyottil	Semantic Analysis with Machine Learning Approaches for Automatic Speech Recognition	26/03/2014
4.	Anoop K	Big Data Analytics on Web Data for Social Emotion Discovery Using Machine Learning Techniques	29/02/2016
5.	Manjary P Gangan	Image Forensics for Digital Image Forgery Detection	01/11/2016

15. Provide information as indicated in 11 and 12 above.

NIL

16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.

1. Two-day International Awareness Webinar on Understanding Misinformation: Intervention Strategies and Ideas, 19<sup>th</sup> – 20<sup>th</sup> February 2021
2. Two-day National Seminar on Deep Learning at Department of Information Technology, Kannur University on 07-03-2020.
3. Delivered a Technical session on “Innovations in Machine Learning” at the Department of Computer Science, Dayapuram Arts and Science College for Women on 30-10-2019.
4. CIDA 2019 First National Conference on Computational Intelligence and Data Analytics 26 - 27 February 2019, Topic: Recent Research Developments and New Directions in Speech Processing
5. Five Day National Workshop on Artificial Intelligence, Sponsored by AICTE Training and Learning (ATAL), Organized by Department of Computer Science, School of Physical Sciences, Central University of Kerala, Kasargod, 1st October 2019
6. Delivered a technical session on ‘ML Story: Perceptron to Deep Neural Nets’ in the Five Days Workshop on Artificial Intelligence at Central University of Kerala, Kasargod, on 1st October 2019.
7. Delivered a Keynote address in the FDP on Research and Application Perspectives of AI and Machine Learning at Department of Electronics and Communication Engineering, MES College of Engineering, Kuttippuram on 8th July 2019.
8. Served as a resource person in the Three-Day National Workshop on Sanskrit and Language Technology organized by the Department of Sanskrit Sahitya, SreeSankaracharya University of Sanskrit, Kalady on 14th February 2019.
9. Served as a resource person to chair the paper presentation session as part of the Three-day National Seminar on Cyber Security and Digital Forensics on 18-01-2019 at Kannur University.
10. Delivered a keynote address in the International Conference on Robotics on 04-01-2019, at EMEA College of Arts and Science, Malappuram.
11. Three Day National Workshop on Deep Learning: Bridging Theory and Practice (DLBTP) Organized by Department of Computer Science University of Calicut, Kerala, Talk: “Neural Networks and Machine Learning Refresher”, 22 - 24 February 2018.
12. National Workshop on Emerging Trends in Information Technology in University Management in association with Association of Indian Universities, 14<sup>th</sup>-16<sup>th</sup> December 2016.

## 17. Innovative processes developed in teaching and learning.

1. Taken initiative to implement a Learning Management System (LMS) under the Open Source based MOODLE platform to support e-learning integrated with the Big Blue Button for the conduct of LIVE classes. The the teaching, learning and assessment activities of the University teaching Departments are now carried out by the support of this facility especially during the During Covid-19 Lock down periods.

This facility can be accessed to the students and faculty members through the CU Learn Space portal <http://learnspace.uoc.ac.in/>

Organised Faculty **Training Programmes on Online Hands-on Training Programme on Learning Management System - MOODLE** in Three Phases (during 25 May 2020 to 08 June 2020, from 26th June 2020 to 4th July 2020 and from 05<sup>th</sup> March 2021 to 13 March 2021) for the faculty members of the University teaching Departments and the School of Distance Education.

1. There are **373 new courses** created in the MOODLE platform for offering to the students studying in the teaching Departments.
  2. Presently **268 faculty members** are enrolled in the platform
  3. Total number of **students enrolled in the platform is 1668**
  4. The total number of faculty members participated in the training programme is 295.
2. Acting as the Director of **Centre for e-Learning** instituted by the University to manage all e-Learning related activities so that the technological innovations can be effectively utilized and seamlessly integrated into the present higher education system and hence to enhance the quality of teaching learning and assessment processes at all levels.
  3. Course co-ordinator for the SWAYAM MOOC  
Course Name: Art of C Programming (4 credit course)

Number of Learners enrolled: 1,587 (1stRun), 36,226 (2nd Run), 16,410 (3rdRun)

Developed for the Consortium for Educational Communication (CEC), New Delhi under UGC in 2018.

4. Editor of e-Content for the SWAYAM MOOC  
Course name: IT Fundamentals

Developed for the Consortium for Educational Communication (CEC), New Delhi under UGC in 2019.

## 18. Participation in curricular development:

As a member of the Board of Studies in Computer Science & Application (PG) involved in the curriculum development of the CCSS and CBCSS curriculum and OBE implementation of MSc Computer Science, MPhil Computer Science Programmes of the University of Calicut. Following are the academic responsibilities held.

- Member, Academic Council, University of Calicut during 27-09-2011 to 26-09-2013, 27-09-2013 to 20-10-2013 and 17-06-2014 to 16-06-2016, 06-08-2018 to 27-08-2020
- Member, Faculty of Science, University of Calicut during 22-10-2011 to 26-04-2016.
- Chairman, Board of Studies in Computer Science and Applications (PG) during 22-10-2011 to 26-04-2016, July 2020 – till date
- Member, Board of Studies in Computer Science and Applications (PG) during May 2016 to July 2020 – till date

19. Participation in co-curricular and extra-curricular activities.

1. Served as Jury member for the Reboot Kerala Hackathon 2020 programme of the Govt of Kerala on 22-02-2020.
2. Served as a member of the registration committee formed in connection with the conduct of Indian History Congress at Kannur University.
3. Served as a resource person for delivering an invited talk in the Orientation Programme arranged for the Higher Secondary students of Kozhikode district held on 28th September 2019 at Govt. HSS, Koyilandy.
4. Served as a resource person in the induction and orientation programme for the MCA/MSc (CS) fresher students at the Department of Information Technology, Kannur University on 1st July 2019.
5. Acting as the member of the Board of Studies and the Research Advisory Committee Meeting at Farook College (autonomous), 2019-20.
6. Participated in the Young Scholars Congress 2019 held at University of Kerala Campus during 16-17th March, 2019.
7. Attend the NSS function on 6.12.18 at Attappady Govt. College in distributing the School Kits to the tribal students of the region which is sponsored by the students\ alumni of the Department of Computer Science as a token of support to the NSS unit at the tribal village.
8. Served as the course co-ordinator of the Refresher Course in Computer Applications for College/University teachers organised by the UGC-Human Resource Development Centre (HRDC), University of Calicut from 14.11.2018 to 04.12.2018 at HRDC, Calicut University campus.
9. Attend the National Seminar on Big Data Analytics using Hadoop organised by the Department of Computer Science, Sreekrishnapuram V. T. Bhattathiripad College on 18th of September 2018 as the Guest of Honour to deliver the Keynote Address.
10. Attend the adalath arranged by the District Collector, Kozhikode, at Vatakara Town hall on 29th August 2018 as the nodal officer in connection with the issuance of the duplicate mark list\certificates for those who have lost\damaged it in the recent flood\landslide happened in Kerala.
11. Served as a Chief Guest & Resource person at the Inaugural Ceremony of the Computer Science Association at Sahrdaya College of Advanced Studies, Thrissur on 9th August 2018.
12. Served as a resource person for the Induction & Orientation Programme FOCUS 2018 arranged for the newly admitted MCA students at the Department of IT, Kannur University on 3rd August 2018
13. Acting as a member of the technical committee for the implementation of office automation at Kerala Kalamandalam, Cheruthuruthi.
14. Nominated as a member of the technical committee at Kannur University.

15. Acting as a member of the expert committee at GuruvayoorDevaswam.
16. Serving as the member of the technical committee at Thunjathezthuthachan Malayalam University.

20.Refresher and Orientation courses attended:

1. Dr. Lajish V L: Refresher Course in CS organized by UGC-HRDC, University of Calicut during 10-08-2016 to 30-08-2016
2. Dr. Lajish V L: Refresher Course in CS organized by UGC-HRDC, University of Calicut during 15-01-20 to 28-01-2020

21.Examination /Evaluation reforms initiated:

1. Served as an external examiner for the conduct of PhD Open Defence and public Viva-Voce examination at School of Computer Science, MG University, Kottayam on 30th Jan 2020.
2. Served as External Examiner for the conduct of Practical examination of I Semester M.Sc. Computer Science Degree (CCSS - Regular) Examination, November 2019 on 11-10-2019 at Department of Information Technology, Kannur University.
3. Served as Chairman, Board of examination for the MSc and MPhil Computer Science programme of the University.
4. Served as Question paper setter and additional examiner for evaluation of the answer scripts for various Universities and Autonomous colleges.

22.Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.

1. Bibish Kumar K T, R.K. Sunil Kumar,Sandesh EPA, Lajish V.L , A Comparative Study of Lip region Segmentation in Different Colour Space for Lip reading in Indian Context, International Journal of Tomography and Simulation, Vol. 33(1), pp. 73-89, ISSN 2319-3336, 2020
2. Baiju.K.B, Sabna.T.S, Lajish.V.L , Segmentation of Malayalam Handwritten Characters in to Pattern Primitives and Recognition using SVM International Journal of Engineering and Advanced Technology(IJEAT), 9(3), pp. 1817-1822, ISSN 2249-8958, 2020
3. Vivek P and Lajish V L ,Automatic Content based Classification of Speech Audio using Multiple Instance Learning, International Journal of Recent Technology and Engineering (IJRTE), ISSN 2277-3878, 2020.
4. Vivek P.SandeshEPA,Lajish VL , Durational Characteristics of Allophonic Variations in Malayalam Consonant Phonemes, Int. journal of research in electronics and computer engineering (ijrece), ISSN 2349 - 2281UGC List No: 44816, 2019
5. K. T. Bibish, R. K. Sunil Kumar, E. PA. Sandesh, S. Sourabh, V. L. Lajish, Viseme set identification from Malayalam Phonemes and Allophones, International Journal of Speech Technology (IJST), Springer US, Vol. 22(4), pp. 1149-1166, ISSN 1572-8110,2019.
6. Kumar Rajamani Benson C. C., Lajish V. L., Automated Identification of Brain Tumors And Classification Of Tumor Grades From MR Images Using Mi-Graph Based Multiple Instance Learning, Int. Journal of Imaging Science &Engineering (IJISE), Vol.11(1), pp. 7-

14, ISSN, 1934-9955, 2019.

7. Baiju.K.B and Lajish V.L, Primitive Segmentation of Online Malayalam Handwritten Strokes using Ramer-Douglas-Peucker Algorithm and Eight Direction Freeman Code , International Journal of Research in Electronics and Computer Engineering (IJRECE), Vol. 7(2), pp. 87-90,ISSN 2393-9028, 2019.
8. Reshma PK, Lajish V L, Ontology Based Semantic Information Retrieval Model for University Domain, International Journal of Applied Engineering Research, ISSN: 0973-4562, 2018.
9. Vivek P. Sandesh EPA, Lajish V.L,Durational Characteristics of Allophonic Variations in Malayalam Vowel Phonemes, Int. journal of research in electronics and computer engineering (ijrece), ISSN2348 - 2281, UGC List No: 44816, 2018
10. Baiju.K.B, Sabeerath.K and Lajish.V.L, A Quick Review on Features and Classification Techniques in Online Recognition of Handwritten Dravidian Scripts, International Journal of Research in Advent Technology (IJRAT) , 6(11), 3245-3251, ISSN 2321-9637, 2018.
11. Vivek P., Sandesh E PA, Lajish V L,Durational Characteristics of Allophonic Variations in Malayalam Consonant Phonemes, International journal of research in electronics and computer engineering (ijrece), ISSN 2349 - 2281, UGC List No: 44816, 2019
12. R K Sunil Kumar, K M Muraleedharan, P Vivek, V L Lajish,Study of Nonlinear Properties of Vocal Tract and its effectiveness in Speaker Modeling, Journal of Acoustical Society of India, Vol. 43, No. 2, page: 116-124, 2016
13. Benson C.C, Lajish V. L and K.Rajamani,A Novel Skull Stripping and Enhancement Algorithm for the Improved Brain Tumor Segmentation Using Mathematical Morphology, International Journal of Image, Graphics and Signal Processing. 8(7) 2074-9074 2074-, 2016.
14. Anoop K, Deepak P, and Lajish V L. 2020. Emotion Cognizance Improves Health Fake News Identification. In 24th International Database Engineering & Applications Symposium (IDEAS 2020), August 12-14, 2020, Seoul, Republic of Korea. ACM, New York, NY, USA, 10 pages, <https://doi.org/10.1145/3410566.3410595>A Novel Document and Query Similarity Indexing using VSM for Unstructured Documents 6th IEEE Int. Conference on Advanced Computing and Communication Systems (ICACCS), 2020
15. Anjali T, Chandini K, Anoop K, Lajish V L, "Temperature Prediction using Machine Learning Approaches", 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICT), IEEE, Kannur, 5-6 July 2019, pp. 1264-1268, E-ISBN: 978-1-7281-0283-2
16. Reshma P K, Suharshala Rajagopal, Lajish V L,Document and Query Similarity Indexing using VSM for Unstructured Documents and Natural Language Queries, JAC : A Journal of Composition Theory 2019 0731-6755, DOI:19.18001.AJCT.2019.V12I12.19.11615.



17. R Suharshala, Anoop K, Lajish V L, "Cross-Domain Sentiment Analysis on Social Media Interactions using Senti-Lexicon based Hybrid Features", 3rd International Conference on Inventive Computation Technologies (ICICT), India, IEEE, pp.772-777, E-ISBN: 978-1-5386-4985-5, DOI: 10.1109/ICICT43934.2018.9034272, Nov. 2018,
18. Anjali T, Chandini K, Anoop K, Lajish V L, "Temperature Prediction using Machine Learning Approaches", 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICT), IEEE, Kannur, pp. 1264-1268, E-ISBN: 978-1-7281-0283-2, DOI: 10.1109/ICICT46008.2019.8993316, 5-6 July 2019
19. Manjary P Gangan, Anoop K, Lajish V L, "Indexing and Retrieval of Malayalam News Videos Based on Word Image Matching", International Conference on Advances in Computing, Communications and Informatics (ICACCI), IEEE, Udupi, pp. 1103-1108, E-ISBN: 978-1-5090-6367-3, DOI: 10.1109/ICACCI.2017.8125989, , 13-16 September 2017.
20. Manjary P. Gangan, Anoop K and Lajish V. L, "Word Profile and DTW Based Approach of Text Recognition for Retrieval in Malayalam News Videos", National Conference on Recent Trends in Computational Intelligence and Image Processing (RCIP 2016), Jointly Organized by Dept. of Information Technology & Dept. of MCA, College of Engineering Vadakara, & Dept. of Computer Science, University of Calicut 22-23 Feb 2016.

23. Books published: with ISBN No., Without ISBN No., Chapters in books.

1. Infinitude: Frontiers of Research in Mathematics, Statistics and Computer Science, Published by UGC HERC, University of Calicut, ISBN : 9788191070627 (Edited by Dr.Lajish VL)
2. Infinitude: Frontiers of Research in Mathematical and Computing Science, Published by UGC-HRDC, University of Calicut, December 2018, ISBN: 978-93-87398-82-5 (Edited by Dr.Lajish VL)
3. Anoop K, Manjary P Gangan, P Deepak, and V L Lajish, "Leveraging Heterogeneous Data for Fake News Detection", Linking and Mining Heterogeneous and Multi-view Data, Springer, Cham, pp. 229-264, January 2019, ISBN: 978-3-030-01871-9, DOI 10.1007/978-3-030-01872-6\_10
4. Lajish V L, Anoop K, Manjary P Gangan, "The Impact of Online Product Reviews and Social Media Interactions on Consumer Purchase Behaviour Prediction: An Opinion Mining Perspective", Infinitude: Frontiers of Research in Mathematical and Computing Science, UGC-HRDC, University of Calicut, December 2018, ISBN: 978-93-87398-82-5.
5. Anoop K, Lajish V L, "മലയാളം ന്യൂസ്പീഡിയോകളുടെ ഉള്ളടക്കാധിഷ്ഠിതമായ സൂചികയുടേ റെണ്ടുകളും ഒരു മൾട്ടിമോഡൽ സമീപനം",   
"/malayāḷam̐n'yūsvidiyēākāḷuṭeullāṭakkād'dhiṣṭhitamāyasūcikayum̐vīṇṭeṭukkalum̐:  
orumaḷṭimēādalsamīpanam̐/", *Arivum Malayalavumsarvakalashalagaveshanamsamooathin*,  
November 2017, ISBN: 978-81-928620-1-9

24. Patents Applied/Granted: National. International, commercialized:

1. Name of the Patenter :Lajish.V.L and Sunil Kumar Kopparapu  
Patent Number: No.318427 (Indian)

Title of the patent: ONLINE SCRIPT INDEPENDENT RECOGNITION OF  
HANDWRITTEN SUB-WORD UNITS AND WORDS

Year of Award of patent: August 19, 2019.

2. Name of the Patenter : Sunil Kumar Kopparapu , Sanjay Kimbahune and Lajish.V.L  
Patent Number:No. 337050 (Indian)

Title of the patent: DETECTION OF SPURIOUS/COUNTERFEIT MEDICINES

Year of Award of patent:May 19, 2020.

25.Consultancy services provided and revenue generated: NIL

26.Conferences, seminars, symposia and workshops organized as convener/coordinator:

1. Two-day International Awareness Webinar on Understanding Misinformation: Intervention Strategies and Ideas during 19<sup>th</sup>-20<sup>th</sup> Feb. 2021, (Workshop Co-ordinator: Dr.Lajish.V.L)
2. Organized aTwo-day hands-on training workshop on Learning Management System MOOOLE for the faculty members of the Calicut University Teaching Departments during March 7th - 8th, 2019, at Department of Computer Science, University of Calicut.(TrainingCo-ordinator: Dr.Lajish.V.L)
3. Faculty Training Programmes on Online Hands-on Training Programme on Learning Management System - MOODLE Phase III(TrainingCo-ordinator: Dr.Lajish.V.L) during 05/03/2021- 13/03/2021
4. Faculty Training Programmes on Online Hands-on Training Programme on Learning Management System - MOODLE Phase II (Workshop Co-ordinator: Dr.Lajish.V.L) during 26-06-2020 - 04-07-2020
5. Faculty Training Programmes on Online Hands-on Training Programme on Learning Management System - MOODLE Phase I (Workshop Co-ordinator: Dr.Lajish.V.L) during 25/05/2020 - 08/06/2020
6. Two days National Conference on Computational Intelligence and Data Analytics- 2019 (CIDA) [Dr.Lajish.V.L.- Co-ordinator] during26/02/2019-27/02/2019
7. National Workshop on Deep Learning; Bridging Theory and Practice (DLBTP) (Workshop Co-ordinator: Dr.Lajish.V.L during 22/02/2018-24/02/2018

27.Number of collaborations:

1. Queen's University, Belfast - Dr Deepak P, Lecturer,School of Electronics,

Electrical Engineering and Computer Science.

2. Industry Interlinkage John and Smith Solutions LLP, Govt. Cyberpark, Calicut Dr Lajish V.L and Dr. M.C Jobi 2020 (Student Apprenticeship and Advisory Board member)
3. TCS Innovation Labs, Mumbai, Tata Consultancy Services Ltd. (Research)

28. Awards / recognitions received: International, National, State, University level.

1. Best Poster Presentation (Scientist) Award in Mathematical and Statistical Sciences in the 32nd Kerala Science Congress held at Yuvakshetra Institute of Management Studies, Palakkad, during 25<sup>th</sup> - 27<sup>th</sup> January 2020  
Poster: "Anomalous Weather Prediction in Kerala using Machine Learning Techniques", Anjali T, **Lajish V L**, Anoop K, Manjary P Gangan,
2. Best Paper Award in the 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT) held at Vimal Jyothi Engineering College, Kannur, 5th-6th July 2019 Paper: "Temperature Prediction using Machine Learning Approaches", by T Anjali, K Chandini, K Anoop, Lajish V L
3. Best Poster Presentation (Scientist) Award in Mathematical and Statistical Sciences, Anjali T, Dr. Lajish VL, Anoop Kadan, Manjary P Gangan, 32nd Kerala Science Congress 2020 .
4. Best Paper Award in 6th International Conference on Advanced Computing and Communication Systems (ICACCS) Reshma P K, Suharshala Rajagopal, Dr. Lajish V L, IEEE 6th International Conference on Advanced Computing and Communication Systems (ICACCS) 2020 Teacher and Reserach Scholar
5. Dr. APJ Abdul Kalam Life Time Achievement National Award - 2017, Dr. Lajish V L, IRDP Group of Journals, Chennai, India, 2017

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13, 14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

## Format for preparing the faculty profile:

(Provide the information for last five years from 2016-17 to 2020-21)

1. Name of the faculty: Vivek P.
2. Name of the Department: Computer Science
3. Educational qualifications: MCA, Ph.D
4. Present position: Assistant professor (On hourly basis)
5. Address for correspondence: Vandana, Maniyur, Kozhikode.
6. E-mail and contact number: [vivekuoc@gmail.com](mailto:vivekuoc@gmail.com), 9446581450
7. Specialization: Speech Technology
8. Total teaching experience: 2 years
9. Courses taught: Data structure, Compiler Design, Object oriented programming, Operating System.
10. Research experience: NA
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.---- NA
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. ----NA
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree. NA
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration. NA
15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person. **Attached**
17. Innovative processes developed in teaching and learning. NA
18. Participation in curricular development: NA
19. Participation in co-curricular and extra-curricular activities. NA
20. Refresher and Orientation courses attended: NA
21. Examination /Evaluation reforms initiated: NA

22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.
23. Books published: with ISBN No., Without ISBN No., Chapters in books. NA
24. Patents Applied/Granted: National. International, commercialized: NA
25. Consultancy services provided and revenue generated: NA
26. Conferences ,seminars, symposia and workshops organized as convener/coordinator: NA
27. Number of collaborations: NA
28. Awards /recognitions received: International, National, State, University level. NA

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

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### Enclosure III

Sr. No.	Name of teacher	Conference/workshop details	Participated/presented	Presented title
1.	Vivek P.	Five day workshop on Artificial Intelligents organized by Department of computer science, Central University of Kerala	Presented	Machine learning for speech analytics
2.	Vivek P.	Sullamussalam Science College, Areacode	Presented	Perception and attitude towards research projects
3.	Vivek P.	Three-day Workshop on Computational Linguistics, at the ThunchathEzuthachan Malayalam University	Presented	Python Programming for Malayalam Language Computing'
4.	Vivek P.	3 day IQAC Seminar, GNOSIS II 2016, at Mahatma Gandhi College, Iritty	Presented	Soft Computing Techniques for Intelligent Systems and Robotics'

## **Format for preparing the faculty profile:**

(Provide the information for last five years from 2016-17 to 2020-21)

1. Name of the faculty: SHAHINA K M
2. Name of the Department: department of computer science
3. Educational qualifications: M.TECH
4. Present position: Asst.Professor on hourly basis
5. Address for correspondence: Kunnath Malayil , Neeleswaram(P.O),Omassery,Kozhikode,Pin-673582
6. E-mail and contact number:[shahinakm2@gmail.com](mailto:shahinakm2@gmail.com), Mob:9048352382
7. Specialization: Computer Science
8. Total teaching experience: 4 years
9. Courses taught: Design and Analysis of algorithm, Theory of computation, Web Technology,Data structure.
10. Research experience: NIL
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. NIL
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI. NIL
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree. NIL
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration. NIL
15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person.  
  
Paper presentation in 3 national and 1 international conferences. 3 workshops and 2 seminars attended.
17. Innovative processes developed in teaching and learning.
18. Participation in curricular development: NIL
19. Participation in co-curricular and extra-curricular activities. NIL

20. Refresher and Orientation courses attended: NIL
21. Examination /Evaluation reforms initiated: NIL
22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS. 5 Peer reviewed journal papers and 4 conference proceedings.
23. Books published: with ISBN No., Without ISBN No., Chapters in books.NIL
24. Patents Applied/Granted: National. International, commercialized: NIL
25. Consultancy services provided and revenue generated: NIL
26. Conferences ,seminars, symposia and workshops organized as convener/coordinator: NIL
27. Number of collaborations: NIL
28. Awards /recognitions received: International, National, State, University level. NIL

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

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## **Format for preparing the faculty profile:**

(Provide the information for last three years from 2016-17 to 2020-21)

1. Name of the faculty: Manjula KA
2. Name of the Department: Department of computer science
3. Educational qualifications: MCA
4. Present position: Assistant Professor, Head of the department
5. Address for correspondence: Achutha Bhavan, Thamarakuzhi, Malappuram-PO.
6. E-mail and contact number: manjulaka@uoc.ac.in
7. Specialization: Computer science/Applications
8. Total teaching experience: 9 years
9. Courses taught: Advanced Database management systems, Programming methodology, Java programming, Advanced Java, Practical I, Practical II, Practical III, Project guidance.
10. Research experience:
11. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.
12. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.
13. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D. degree.
14. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.
15. Provide information as indicated in 11 and 12 above.
16. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person –

(Enclosure III attached)

No: of seminars/workshops/conferences/FDP attended: 21

No: of papers presented: 5

Resource person:1



17. Innovative processes developed in teaching and learning : Use of ICT based techniques in teaching learning process– use of Moodle like LMS based knowledge transfer.
18. Participation in curricular development: Participated in syllabus revision activities including addition of new courses.
19. Participation in co-curricular and extra-curricular activities.
20. Refresher and Orientation courses attended:
21. Examination /Evaluation reforms initiated:
22. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.  
(Enclosure IV attached)  
Publications in journals- 2  
Publication in conference proceedings - (with isbn 4, without isbn 1)
23. Books published: with ISBN No., Without ISBN No., Chapters in books.  
(Enclosure IV attached)  
Publications as book chapters – ( with isbn):2
24. Patents Applied/Granted: National. International, commercialized:
25. Consultancy services provided and revenue generated:
26. Conferences ,seminars, symposia and workshops organized as convener/coordinator:  
Co-ordinator/convenor/ organizing chair - 10 events (Enclosure V)
27. Number of collaborations:
28. Awards /recognitions received: International, National, State, University level.

Note: If necessary for Item No. 11 and 12 provide information in Enclosure-I, for 13,14 and 15 Enclosure- II, for 16 Enclosure-III, for 22 and 23 Enclosure- IV and so on.

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### Enclosure III

Sr. No.	Name of teacher	Conference/workshop details	Participated/presented	Presented title

1	Manjula KA	One week short run course on 'EContent development' organized by MHRD-TLC, University of Calicut, 26/8/2019 – 1/9/2019.	Participated	
2	Manjula KA	One day workshop on "data analytics in R using statcraft" organized by kannur university on 5/1/2019.	Participated	
3	Manjula KA	2 days workshop on linear models by dept of statistics, University of Calicut on 15/3/2019 to 16/3/2019.	Participated	
4	Manjula KA	3 days National seminar on recent trends in statistics organized by dept of statistics, University of Calicut on 13/2/108 to 15/23/2018	Participated	
5	Manjula KA	2 day workshop on ' revised framework of NAAC and quality systems in higher education" organized by IQAC, University of Calicut 5/3/2019	Participated	
6	Manjula KA	3 days national seminar on "recent trends in topology " organized by dept of statistics, University of Calicut on 7/2/2019-9/2/2019	Participated	
7	Manjula KA	2 days hands-on-training workshop on LMS- Moodle organized by IQAC, University of Calicut on 7/3/2019 to 8/3/2019.	Participated	
8	Manjula KA	FDP on machine learning organized by Bharathiar University on 30/1/2019 to 1/2/2019	Participated	

10	Manjula KA	Int.national conference SICIETS 2018 organized by Sreenivias institute of technology & Management on 28/10/2018	Presented	"A novel method for denoising images"
11	Manjula KA	2day national conference on big data and datascience organized by BBCIT college on 27/10/2017 to 28/10/2017	Presented	"bio inspired computing techniques and applications in finance"
12	Manjula KA	Int national conference on trends in electronics and informatics on 23/4/2019 to 25/4/2019 organized by SCAD college of Engineering	presented	"Gold price prediction using ensemble based ML "
13		ManjulaKA, Presented paper at one day national conference on Green computing organized by NGM college. September 2017	presented	"Role of swarm intelligence techniques in image processing"
14		ManjulaKA, presented at int national conference on smart systems organized by Ajeenkya DY Patil university,27/9/2018-28/9/2018.	presented	"Optimized approach for image enhancement"
15		Manjula KA , participated in National online FDP on Python Programming organized by Govt college for women, Karnataka & IITBombay from 5/6/2020 to 11/6/2020	participated	
16		Manjula KA , participated in National online FDP on Latex and fig organized by Calcutta institute of technology, Karnataka & Howrah and IITBombay from 15/6/2020 to 19/6/2020	participated	

17		Manjula KA , participated in National online FDP on “How can teachers make a difference?” organized by Sree sankaracharya college Kalady and IIT MAdras from 26/5/2020 to 30/5/ 2020	participated	
18		ManjulaKA,participated in online FDPon “Artificial intelligence using Python” organized by AISSMS Institute of information technology,Pune from 14/9/2020 to 19/9/2020.	participated	
19		Manjula KA participated in the online training program on “Deep learning and AI” organized by Pantech e- learning and IETE Mumbai from 13/7/2020 to 17/7/2020	participated	
20		ManjulaKA participated in threeday online FDP on “Latest trends in computer vision technology and applications” organized by Anurag University,Hyderabad from 27/7/2020 to 29/7/2020.	participated	
21		Manjula KA participated in online continuing education programme on “Current trends in data analytics “ organized by NIT Warangal from 31/8/2020 and 4/9/2020.	participated	

22		Manjula KA Participated in 2weeks FDP on multimedia and drawing organized by Govt first grade college, Harihara and IIT Bombay from 2/6/2020 to 16/6/2020.	participated	
23		Manjula KA Participated in national workshop on “emerging technologies in IT in university management” organized by AIU & University of Calicut from 14/12/2016 to 16/12/2016	participated	
24		Manjula KA Participated in the training programme on financial administration organized by UGC-HRDC on 1/10/2016	participated	
25		Manjula KA Participated in the 1 eek short run course in professional development organized by TLC,University of Calicut from 29/11/2016 to 5/12/2016.	participated	
26		Manjula KA participated in seminar on “Human rights” organized by University of Calicut on 9/12/2016``	participated	

Manjula KA, as a Resource Person - delivered invited talk at ' Polytechnic college, Kottakkal titled “databases – current trends and developments” on 15/12/2017 as part of ‘visiting faculty programme’.

## Enclosure IV

<b>Sr. No.</b>	<b>Papers published in peer reviewed journals</b>	<b>Monographs, Books, Chapters in books</b>	<b>Citations</b>	<b>h-index</b>	<b>Impact factor range/Average Impact factor</b>
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1	bookchapter	Manjula KA, Chapter titled "bioinspired computing for efficient optimization image processing tasks" in book "emerging trends in computer technology" published by GRABS educational trust ISBN:9788193692929 published in 2018			
2	Book chapter	Manjula KA, KarthikeyanP, "role of ICT in higher education" in book published by APH publishing corporation ISBN : 9789388316088 published in 2018			
3	proceedings	ManjulaKA, article in Proceedings of one day national conference on Green computing organized by NGM college Pollachi . "Role of swarm intelligence techniques in image processing" September 2017,ISBN:9789387009059			
4	proceedings	ManjulaKA, Proceedings of international conference on smart systems organized by Ajeenkya DY Patil university -"optimized approach for image enhancement" ,27/9/2018-28/9/2018.			
5	proceedings	Manjula KA, Proceedings of CISC 2020,"improved filtering of noisy images by combining average filter", ISSN:21945365, Springer 2020			
6	proceedings	Manjula KA,KarthikeyanP, proceedings of ICOEI2019,ISBN:9781538694398 "gold price prediction using ensemble based ML techniques", IEEE,2019.			
7	Journal	KarthikeyanP,Anish kumar KP,Manjula KA- Journal of management research and analysis-"Venture capital in Indian entrepreneurial eco system" issn:23942770, Volume 06 Issue 2, March 2019.			

8	Journal	ManjulaKA,Karthikeyan P, Journal of emerging technologies and innovative research , Vol4, issue 2,ISSN 2349 5162-“A study of relationship between indian and Asian stock markets using machine learning techniues”			
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## Enclosure V

<b>Name of Conference/ Seminars / Workshops</b>	<b>Funding agency</b>	<b>No. of Participants</b>	<b>University/State/National/ International</b>	<b>Dates</b>
Seminar on “softskills-key to employability and career development” on 9/3/2018 (Manjula KA, co-ordinator of seminar)	university	50	University	9/3/2018
2 days National conference on computational intelligence and data analytics organized by department of cs,University of Calicut. (Convenor, organizing committee)	university	100	National	26/2/2019 to 27/2/2019
3 days national workshop on deep learning – bridging theory and practice organized by department of cs,University of Calicut . (Organizing chair)	university	100	National	22/2/2018 to 24/2/2018

RUSA sasthanayan open house golden jubilee exhibition organized by Department of CS, University of Calicut. (Manjula KA – coordinator)	university	150	University	7/3/2018 to 9/3/2018-
Manjula KA, coordinator of refresher course in computer science organized by UGC-HRDC, University of Calicut	UGC	45	National	15/1/2020 – 28/1/2020
Manjula KA, coordinator of refresher course in computer science organized by UGC-HRDC, University of Calicut	UGC	52	National	10/8/2016-30/8/2016
Webinar on “Research methodology in CS” organized by department of CS on 25/5/2021 (Manjula KA, coordinator of webinar)	university	53	University	25/5/2021
Webinar on “An insight into constitutional obligations” on 25/5/2021 organized by department of CS (Manjula KA, coordinator of webinar)	university	52	University	25/5/2021



Webinar on “IT Career opportunities and requirements” on 28/5/2021 organized by department of CS (Manjula KA, co-ordinator of webinar)	---	51	University	28/5/2021
Webinar on “Improving performance of websites” on 29/5/2021 organized by department of CS and department alumni association (Manjula KA, co-ordinator of webinar)	--	55	univeristy	29/5/2021
Career opportunities in IT in association with UGC Career and Counselling cell UEI&GB(Manjula KA, co-ordinator of seminar)	UGC	60	university	26/8/2016
Seminar Android programming - (Manjula KA, co-ordinator of seminar)	--	50	university	12/8/2016