

**PROGRESS REPORT BY COLLEGES
SUPPORTED UNDER THE STAR COLLEGE SCHEME**

(BT/HRD/11/019/2017)

(2020 – 2021)

**SUBMITTED TO
DEPARTMENT OF BIOTECHNOLOGY
GOVERNMENT OF INDIA**



NIRMALA COLLEGE FOR WOMEN (AUTONOMOUS)

Reaccredited with 'A' Grade by NAAC in the 3rd cycle with CGPA of 3.62

Awarded STAR status to the Departments of Mathematics, Computer Science and

Geography

Supported by DST FIST at Zero level

Redfields, Coimbatore – 641 018.

Tamil Nadu

APRIL 2021



ABOUT THE COLLEGE

Nirmala College for women, situated in Red fields, Coimbatore-18 is run by the Congregation of the Franciscan Sisters of the Presentation of Mary.

The College had its humble beginning as a second grade College in the year 1948. The founder Msgr.Oubagarasamy,D.D., the Bishop of Coimbatore, with a missionary zeal and farsighted vision worked to contribute his mite to the tremendous task of developing women's education for the development of free India. He sent a proposal to the University of Madras requesting permission for the Coimbatore Diocese to start a college for women in Coimbatore. Thus Nirmala College came into being on the first of July 1948. The college has now emerged as one of the premier institutions of learning, propagating higher values of education and learning, with hopes and dreams to achieve her goal, "*Knowledge purifies, Charity Enhances*".

In recognition of the high academic performance and service the college was accredited with “A” **grade** by NAAC during the academic year 2003-04 and was conferred **Autonomous status** in the year 2007.

The enhancement and sustenance of quality led to the reaccreditation with “A” Grade in the academic year 2010-2011. The UGC Expert committee visited the college on 22nd and 23rd April, 2014. In the year 2016 the college was once again reaccredited in the III cycle of NAAC to ‘A’ Grade with a score of 3.62 on a 4 point scale. Having secured ‘A’ Grade in all three cycles and with a CGPA score above 3.5, NAAC has extended the accreditation period to seven years. In view of the above achievement, UGC has extended the Autonomous Review to a period of 10 years. The science departments are strengthened under DST – FIST at zero level.

AIM

Nirmala College for Women aims to equip young women with quality education and life skills, personal skills and social skills that ensure productivity and confidence to take the rightful place in all areas of life, public and private.

OBJECTIVES

In pursuit of this aim, Nirmala College for Women seeks

- ✚ To nurture in the students intellectual curiosity, a quest for knowledge and the ability to translate their knowledge to creative use.
- ✚ To develop in the students a capacity to identify their own potential and form a holistic personality.
- ✚ To mould the students into morally upright and spiritually enlightened human beings
- ✚ To sensitize students to be socially committed, to awaken their conscience and enable them to emerge as active agents of social change.
- ✚ To ever promote National Integration.

PROFORMA FOR THE SUBMISSION OF PROGRESS REPORT (2019-20)

NIRMALA COLLEGE FOR WOMEN (AUTONOMOUS)

- Name of the College : Nirmala College For Women (Autonomous)
- Name of the Departments supported : Mathematics, Computer Science, Geography
Assessment duration : 01.04.2020 to 31.03.2021 Duration in years: 1 year
- Name of Coordinator, designation,
Address, phone no. : Dr. Pawlin Vasanthi Joseph
Associate Professor and Head
Department of Zoology
Nirmala College for women (Autonomous)
Mobile: +91 9655513364
- No. of regular faculty with Ph. D in each participating departments:

Sl. No.	Department	No. of Faculty	With Ph. D	With M. Phil	With P. G
1.	Mathematics	11	10	-	1
2.	Computer Science	17	2	14	1
3.	Geography	5	2	2	1

- List of courses (B.Sc/M.Sc/PG Diploma, certificate etc) run by different participating departments:

Sl. No.	Department	Courses offered
1.	Mathematics	B. Sc Mathematics M. Sc Mathematics M. Phil Mathematics Ph. D Mathematics PGDOR (Post Graduate Diploma in Operations Research)
2.	Computer Science	B. Sc (Computer Science) M.Sc. (Computer Science)

		BCA (Computer Applications) B. Sc (Information Technology) Certificate course in Multimedia Post Graduate Diploma in Computer Applications (Affiliated to Bharathiar University)
3.	Geography	B. Sc Geography M. Phil Geography Ph. D Geography

4. Cut off percentage for admission in different courses in participating departments, positions in University, percentage of result in 2020-21 academic session:

Sl. No.	Department	Total strength of students	Cut off percentage	Position in University	% of Result Nov.2020
1.	Mathematics	I B.Sc - 38	80%	Autonomous	100%
		II B.Sc - 43			100%
		III B.Sc - 55			100%
2.	Computer Science	I B.Sc CS - 49	60%	Autonomous	100%
		II B.Sc CS - 47			100%
		III B.Sc CS - 45			98%
		I BCA - 45	60%		100%
		II BCA - 43			98%
		III BCA - 66			100%
		I B.Sc IT - 19	60%		100%
		II B.Sc IT - 41			100%
		III B.Sc IT - 47			98%
3.	Geography	I B.Sc -	40%	Autonomous	93.33%
		II B.Sc -			85.4%
		III B.Sc -			94.12%

5. List of projects undertaken by students, industrial visits by students, summer training in last one year.

Department	List of projects	No. of Students (Under projects)
Mathematics	PROJECTS IN MATLAB	
	Image Processing Using Matlab	9
	Lossless Image Compression using Matlab	9
	Vehicle Number Plate Detection Using Matlab	9
	Audio Compression using Wavelets in Matlab	8
	Automatic certificate Generation using Matlab	8
	PROJECTS IN R-Language	
	Using R-Language to analysis Covid -19	11
	Digital Shopping sales Analysis Using R-Language	11
	Data analysis on population Growth using R- Language	11
	Voting rate Analysis Using R-Language	11
	Analysis of education after pandemic situation using R- Language	11
B.Sc (Computer Science)	PROJECTS IN JAVA/MYSQL	
	Tweet based traffic detection system	2
	Smart Village creation	2
	Women security App	3
	Internet based Pharmacy Application Java	3
	Projects in VB.NET/MYSQL	
	ATM fake or damage currency note identification system VB.NET	3
BCA	Secret locker using fingerprint in Internet of Things	2
	Remote based smart water tap monitoring and control system using IoT	2
	Smart home automation system using C and C++	3
	Intra net/set qpedia system using Asp .Net and Sql Server	1
	Online car parking system using Java and Sql Server	3
B.Sc (Information)	PROJECTS IN PYTHON/PHP	
	Application Software for Training Faculty Management	2

Technology)	System	
	cloud based health care management using QR code	2
	Advanced image cryptography communication system	2
	PROJECTS IN .NET	
	Farmer Scheme Management System	2
	Web based human resources management in IT company	2
	PROJECTS IN ANDROID	
	Medicare alert using gio fencing sensor	2
	Face detection based attendance system by image processing (IoT)	2
	Student Exam and Event Notification Using Android	2
Geography	Planning implications of over bridge construction: A case study of Coimbatore City	8
	Spatial Analysis of slum dwellers location along the Vaalankulam Tank ,Sungham, Coimbatore	9
	Socio economic impact of slum population along the Valankulam Tank,Sungham ,Coimbatore	8
	Impact of Covid -19 Pandemic lockdown on the street vendors :A case study of Coimbatore North Taluk	9

B. Industrial Visits for Students: Nil due to lock down.

C. Summer/Winter Training: Nil due to lock down.

6. Training received by faculty:

Department	Date	Training	No. of Faculty
Mathematics	22.05.2020 & 23.05.2020	R-Programming(Online Training) Mathematics(SF) Nirmala College for Women, Coimbatore	5
	27.06.20 To 2.07.21	FDP Inclusive Procedures and Processes in Assessment and Accreditation by NAAC	1
	13.7.2020 to 18.7.2020	FDP,UGC Stride Component 1 Holy Cross College, Trichy	1

	24.11.20 to 01.12.20	Faculty development programme: Adaptive Success Strategies for NAAC	01
	28.12.20 & 29.12.20	Workshop on “Outcome Attainments” Internal Quality Assurance Cell (IQAC), Nirmala College for Women, Coimbatore	2
	16.10.20 To 22.10.20	Faculty development programme: Trends and Challenges in Research Methodologies	3
	05.11.20 – 06.11.20	National Workshop: Curriculum, Pedagogy and Assessment: An integrated Design Approach for OBE- IQAC Nirmala College for Women Red Fields Coimbatore	01
B.Sc(Computer Science) ,BCA B.Sc (Information Technology)	01.07.2020	Faculty Development Programme: ICT Tools for Effective Teaching	05
	22.05.2020 & 23.05.2020	R-Programming(Online Training)	1
	28.12.20 & 29.12.20	Workshop on “Outcome Attainments” Internal Quality Assurance Cell (IQAC)	1
	24.11.20 to 01.12.20	Faculty development programme: Adaptive Success Strategies for NAAC	01
	16.10.20 To 22.10.20	Faculty development programme: Trends and Challenges in Research Methodologies	01
	12.02.21	National Workshop: Assessment and Accreditation Process of NAAC, the Do and Dont’s- IQAC	06
	28.12.20 – 29.12.20	National Workshop:Outcome Attainments - IQAC	07
	05.11.20 – 06.11.20	National Workshop:Curriculum, Pedagogy and Assessment: An integrated Design Approach for OBE- IQAC	01
Geography	13.7.2020 to 18.7.2020	FDP,UGC Stride Component 1 Holy Cross College, Trichy	1
	14.7.2020 to167.2020	FDP on Sustainable Water Resource Management Karpaga Vinayaga College of Engineering & Technology	1

	22.7.2020 to 26.7.2020	FDP on ICT Tools for Effective Teaching, Sathyabhama Institute of Science & Technology	1
	29.06.2020 to 03.07.20	FDP on “ECO- ENVIRO-Sustainability” RGPV, under TEQIP-III in association with Civil Engineering Department of IPS Academy, Institute of Engineering & Science, Indore.	1
	19.10.20 to 23.10.20	FDP on Innovations in teaching and learning-“Traits of empowerment of self” National level FDP by Bharathi Women’s College, Department of Geography, Chennai.	1
	13.6.2020 to 01.07.2020	Training on "Remote Sensing and GIS Technology and Applications for University Teachers and Government Officials"	3
	29.06.2020 to 03.07.2020	Satellite Photogrammetry & Its Applications	1
	13.07.2020 to 24.07.2020	Application of Geoinformatics in Ecological Studies	1
	13.07.2020 to 02.08.2020	21 days online GIS training programme using QGIS	1
	27.07.2020 to 31.07.2020	Geospatial Inputs for MAster Plan Formulation	1
	03.08.2020 to 07.08.2020	Remote Sensing Applications in Agriculture Water Management	1
	17.08.2020 to 11.09.2020	Remote Sensing & Digital Image Analysis	1
	14.09.2020 to 25.09.2020	Global Navigation Satellite System	1
	19.10.2020 to 29.10.2020	Basics of Geocomputation and Geoweb Services	1
	02.11.2020 to	RS & GIS Applications	1

20.11.2020		
01.12.2020 to 07.12.2020	Remote Sensing of Land Degradation	1
13.06.2021 to 1.7.2021	“Remote Sensing & GIS Technology and Applications for University Teachers & Government Officials”	1
13.6.2020 to 01.07.2020	Training on "Remote Sensing and GIS Technology and Applications for University Teachers and Government Officials"	1
25.06.2020 to 10.07.2020	Training on Application of Remote sensing and GIS in Mineral Expolaration	1
26.10.2020 to 31.10.2020	AICTE sponsored One Week online STTP on "Capacity Building and Training on Geospatial Technologies (Phase-I: Water Resources)"	1
13.07.20 20 to 02.8.2020	21Days online training program using QGIS	1
21.7.2020 to 22.7.2020	International Workshop Training Series 1 st Episode on Research Methodology and Academic Writing	1

7. List of exhibition/seminars/training courses conducted by the college:

Department	Date	Exhibition, Seminars, Training	No. of Participants
Mathematics	18.08.20	Guest lecture Fuzzy Mathematics	77
	18.09.20	Guest lecture -Application of Fluid Dynamics to Astrophysical systems	95
	04.11.20	Webinar in Visualization Techniques	90
	12.02.21	One day Workshop - Latex	55
	19.02.21	Hands on training in Matlab	43
	9.03.21	Webinar on Differential Equations and algebra	100
B.Sc (Computer Science) , BCA B.Sc (Information Technology)	22.05.20	International Seminar on Cloud Computing and Data Analytics	100
	1.06.20 & 02.06.20	Hands on Training on Python – A Pedagogy For Beginners	40
	09.03.21	Hands on Training on Web Designing and graphics	50
	06.06.20	Hands on Training: “Arduino Programming Using Tinker Cad”	40
	08.08. 20	National level Hands on Training: “Data Visualization”	70
	19.02.21	Hands on Training: XML in Excel	65
	20.02.21	Hands on Training: Chatbot Development using API	50
GEOGRAPHY	22.05.2020	International webinar on the	107

	topic-Disaster Management in Times of Covid19	
04.06.2020	International Webinar Lecture Series – Episode 1 “GIS And Remote Sensing Solutions For Post Covid -19 New World Order ”	170
09.06.2020	Webinar Lecture Series - Episode 2 on the topic “Paradigms in Geography: Issues, Research and Opportunities”	119
18.06.2020	Webinar Lecture Series - Episode 3 on the topic “Future Pathways in Geoinformatics: Remote Sensing & WebGIS”.	126
20.06.2020	Webinar Lecture Series - Episode 4 on the topic “Real Time Development Applications of Remote Sensing and GIS”	108
27.06.2020	Webinar Lecture Series - Episode 5 “Evolving Urban World: Environment, Informed Decision Making, Governance and Sustainable Resilience”.	186
08.07.20	Webinar Lecture Series - Episode 6 “Geoinformatics for land and Water Management”	139
13.08.2020	Association Guest lecture on “Human Excellence is Our Life Breath”	120
15.08.2020	Independence day celebration – Association Guest lecture - Freedom Fighters	75
11.09.2020	“Disaster Management and Geography”	106
15.10.2020	Association Guest lecture on “Ignited Minds: Unleashing The Power Within You”	95
20.10.2020	How to become an IAS/ IPS/IFS Officers?	110
02.11.2020	Association Invited lecture “Scope of Geography”	97
25.01.2021	Investor Awareness Program for Faculty members	56

	22.03.2021	Lecture workshop in connection with World water day “Geoinformatics :Basic concept and applications in integrated Water management”	72
	23.03.2021	Lecture workshop in connection with World meteorological day “Our future: Global warming or global cooling”	76
	25.03.2021	Lecture Workshop on Surveying-A paradigm shift	90
	30.03.2021	Lecture workshop on ‘GIS in Health Care	72

8. Name, designation, host institute of guest faculty invited:

Department	Date	Name and Designation of Resource Person	Topics
Mathematics	15.08.20	Mr. A.Idayaselvan, PG Assistant, GOVT. HR. SEC. School, Mettur DAM, Salem	Real Independence
	18.08.20	Dr. L. Sujatha, Assistant Professor & Head , PG & Research Department of Mathematics, Auxilium College, Vellore	Fuzzy Mathematics
	24.08.20	Dr.Arjunan, Assistant Professor, Algappa Govt. Arts College, Karaikudi	Introduction to Real Analysis
	18.09.20	Dr. Rohan Eugene Louis, Reader, Udaipur Solar Observatory, Physical Research Laboratory, Dept. of Space, Govt. of India, Udaipur, Rajasthan	Application of Fluid Dynamics to Astrophysical systems
	27.10.20	Dr. Rajkumar. S. Rai Assistant Professor Department of Mechanical Engineering Karunya Institute of Technology and Sciences Coimbatore	Applications of Mechanics
	04.11.20	Dr. Mary Louis Dept. of Mathematics Kumaraguru College of Liberal Arts	Visualization Techniques

		and Science Coimbatore	
	09.03.21	Dr. Piramanantham, Associate professor, Bharathidasan University, Tiruchirappalli	Differential Equations and algebra
B.Sc (Computer Science), BCA, B.Sc(Information Technology)	18.07.20	Ms. ChammuBalaji , Fitness and health Nutrition Specialist , Muscat	Techhale 2020
	07.08.20	M.Lissa , Guest lecturer ,Bharathiar University	Basic Perspective on text analytics
	28.10.20	Ms. V.Subathra, Assistant Professor,Kalindi College, University of Delhi	Achieving through the inevitable
	04.11.20	Captain Karthikraj,Indian Army	Pride, Honour and Courage
	18.11.20	Mr.G.Karthik, UI/UX developer, Tech.Mahindra.	How to do Projects
	23.11.20	Mr.M.A.Sivabalan Guest Lecturer,PSG CAS.	Techniques in Digital Marketing
	20.02.21	Mrs.Janaoh Sharon Founder of Blaze Virtual programme	Entrepreneurship Development
	22.02.21	Dr.E.ChandraBlessie, Assistant Professor, Coimbatore Institute of Technology	Data Mining
	23.02.21	Ms. Preethi, Core Team Member, School of Excellence, Chennai	Personal Excellence
	26.02.21	Faculty members , Department of Computer Science.	Introduction to Computers
	27.02.21	Mr.S.Chandra Mohan, Be Positive Institute for Skilling Pvt.Ltd.,Coimbatore.	Python with Data science
	09.03.21	Mrs.Pooja, Webdesigner,Sweden	Hands on Training on Webdesign and Graphics
	22.07.20	Mr.I.A.Mohanraj, Certified Transactional Analyst, Trustee – SAATA, Co-Director- Relations, Coimbatore.	Possibilities of life

	30.07.20	Mr. K.Kalidasan, President, OSAI Environmental organization, Wildlife Protection, Coimbatore.	Nature conservation the need of the Hour
	11.08.20	Dr.TKS.Lakshmi Priya, Professor and Head, Department of Printing Technology, School of Engineering, Avinashilingam Institute for Women, Coimbatore.	3D Object Modeling
	15.08.20	Mr.K.Leninbarathi, Department of Physics, NSS Programme Officer, SNMV College of Arts and Science, Coimbatore	Patriotism is the seed of National Unity and Development
	15.10.20	Dr. K. Ramganes, M.Phil., Ph.D., Asst. Prof., Dept. of Tamil, Sree Saraswathi Thyagaraja College, Pollachi	Sigarathai Nokki
	23.02.21	Mr.K. Boopathi kumar, Full Stack Developer/Data Science, Founder and CEO, Training Trains, Coimbatore.	Data Science
	25.02.21	Dr. Premalatha, Asst. Prof. in Computer Science, VLB Janakiammal College of Arts and Science, Coimbatore	Security in IoT
	25.02.21	Zica Coimbatore Institution, Coimbatore	3D Animation
	06.06.20	Mr. A. Daniel Raj, Assistant Professor, Bannari Amman Institute of Technology, Sathamangalam.	Arduino Programming Using Tinker Cad
	08.08.20	Mrs. Esther Joy, Global Save by Switching Pvt. Ltd, Bangalore.	Data Visualization
	19.02.21	Ms.Melsi.R, Process Excecutive, Vserve Ebusiness Solution, Coimbatore	XML in Excel

	20.02.21	Mr.C.Hari Gowtham, IT Executive, Infosys, Coimbatore	Chatbot Development using API
	15.10.20	Mr. C.R Duraisamy, Ex Junior Warrant officer, Indian Air Force	Importance of Independence in the Challenging World
	24.02.21	Mrs.B.LakshmiPriya Project Lead, Ford India Pvt Ltd., Chennai.	Data Analytics In Real-Time
	23.02.21	Mr. S.Vijay Daniel MA,MBA HR Manager, Episode Technologies Private Limited Coimbatore.	HR Guidance and Training on Current Trends
	08.10.20	Mr. J.S Sukumar, Director of Operations, Win ways Informatics Private limited, Madurai	Content Management System – Career Perspective
	15.10.20	Mr. C.R Duraisamy, Ex Junior Warrant officer, Indian Air Force	Vettrien Nayagan Kalam
	31.07.20	Mr. Senthil Kumar Balu, Senior Developer, Cred Ability, Manchester, United Kingdom.	An Interactive Session on Post Covid 19 challenges in the Indian IT Industry
Geography	22.05.2020	1.Prof. Vinod Menon ,Founder Member, National Disaster Management Authority (NDMA), Government of India Senior Advisor, Sphere India- National Coalition of Humanitarian Agencies 2.Dr.Dipanker Chyau Patnaik Team Leader, CMEI Cambodia Community Mobilization and Environmental Improvements (CMEI) Integrated Urban Environmental Management In the Tonle Sap Basin. Project by ADB and Ministry of Public works & transport-Royal Government of Cambodia	Disaster Management in Times of Covid19

	04.06.2020	<p>1.Prof.N.Sivagnanam, Former Professor & Head Professor, Col Colin Mackenzie Chair, Department Of Geography, University Of Madras & IRS, Anna University, Chennai</p> <p>2.B.Sukumar, Scientist F(Retired) National Centre for Earth Science Studies, Akkulam, Thiruvananthapuram, Kerala</p> <p>3.Dr.R. Jagannathan, Professor And Head Department of Geography, University of Madras, Chennai</p> <p>4.Mr.Zafar Ali Amanullah, Director International Business Development, Smart Bee Technologies Llc, Dubai, United Arab Emirates(UAE)</p>	International Webinar Lecture Series – Episode 1 “GIS And Remote Sensing Solutions For Post Covid -19 New World Order ”
	09.06.2020	<p>1.Dr.T.Vasantha Kumaran Former Professor and Head Department of Geography, University of Madras, Chennai</p> <p>2.Dr. Rubeena T.A, Asst. Department of Geography, University College, Thiruvananthapuram</p>	Webinar Lecture Series -Episode 2 on the topic “Paradigms in Geography: Issues, Research and Opportunities”
	18.06.2020	<p>1.Dr.Y.Nithyanandam, Asst.Professor Department of Natural Resources, TERI School of Advanced Studies, New Delhi, India.,</p> <p>2.Mr.ArunKumar Nandagopal, GIS App Developer, Center for spatial Analytics and Advanced GIS, National Institute of Advanced Studies(NIAS), Indian Institute of Science (IISC), Bengaluru, India</p>	Webinar Lecture Series -Episode 3 on the topic “Future Pathways in Geo- informatics: Remote Sensing & WebGIS”.
	20.06.2020	1.Dr. Kumarasamy K, ICSSR – Senior fellow, Department of Geography, Bharathidasan University,	Webinar Lecture Series -Episode 4 on the topic “Real Time Development

		<p>Tiruchirapalli</p> <p>2.Dr. Sisir Kumar Dash Scientist – ‘E’, National centre for Coastal Research (NCCR), Ministry of Earth Sciences, Government of India, Chennai.</p> <p>3. R.Nagarajan, Head, GIS and Remote Sensing, M.S. Swaminathan Research Foundation, Taramani Institutional Area, CPT Campus, Chennai</p>	Applications of Remote Sensing and GIS”
	27.06.2020	<p>1.Dr.Suman Kr. Karna, Urban Governance and DRR Specialist, Urban Governance and DRR Specialist Government of Nepal, Nepal.</p> <p>2. Dr.Priya Narayanan Advisor, Assistant Assessment and Accreditation Council, Bengaluru,</p>	Webinar Lecture Series -Episode 5 “Evolving Urban World: Environment, Informed Decision Making, Governance and Sustainable Resilience”.
	08.07.2020	<p>1.Dr.Abhrankash Kanungo, Scientist D, Andhra Pradesh space application center, Vijayawada, Andhra Pradesh.</p> <p>2.Dr.Arun Prasad K. Asst.Professor, Central University of Tamilnadu, Thiruvarur</p>	Webinar Lecture Series -Episode 6 “Geo-informatics for land and Water Management”
	13.08.2020	Ms. Praveena Paul, Indian trustee and coordinator, Friends of India, A Swiss based NGO, Geneva, Switzerland	Association Guest lecture on “Human Excellence is Our Life Breath”
	15.08.2020	Dr. Mercy Anandaraj, Retd. Associate professor, Department of History, Nirmala College for Women, Red Fields, Coimbatore – 18	Independence day celebration – Association Guest lecture -Freedom Fighters
	11.09.2020	Mr. Anoop Aravind ,Assistant Manager, KPMG, Jaipur ,India	“Disaster Management and Geography”

	15.10.2020	Mr. Ahamed Shameer, R & D Engineering Manager Mitel Communications, Bangalore	Association Guest lecture on “Ignited Minds: Unleashing The Power Within You”
	20.10.2020	Mr. Riyas Abdulla ,trainer KPR IAS Academy, institute for IAS,IPS,IFS Exams., No.5, AKS Nagar, Gandhipark, Coimbatore	How to become an IAS/ IPS/IFS Officers?
	02.11.2020	Mrs. Prema Balakrishnan Associate Professor Department of Geography, Nirmala College for Women, Red Fields, Coimbatore – 18	Association Invited lecture “Scope of Geography”
	25.01.2021	Mr.Manoj T.Neelakandan Coordinator , Knowledge bell28/1, 1st floor, Near Aditi Victory II, 1st Cross Road, Srirampura, Bangalore -560021	Investor Awareness Program for Faculty members
	22.03.2021	Dr.Dhanjit Dekha, Asst.Professor, Department of Geography, University of Guwahati, Assam	Geoinformatics: Basic concept and Applications in integrated Water Management
	23.03.2021	Dr.Satabdi Roy , Asst,Professor, Dept of Geography, Lady Brabourne College, Kolkata	Our future :Global warming or Global Cooling
	25.03.2021	Dr.Arunachalam Lecture Land Surveying, University of technology and Applied sciences , Muscat Oman.	“Surveying: A paradigm shift”
	30.03.2021	Dr.Sajitha Lulu Head and Assitant Professor Department of Biotechnology VIT Campus,Vellore	GIS in Healthcare

9. Date of Advisory committee meeting:

17.02.2021, DBT Personnel - Dr. Garima Gupta, Scientist-E, DBT Star Project
Coordinator.

10. List of new practical/demonstrations introduced in different departments in last one year:

Department	Class	List of new Practical Introduced
Mathematics	II B.Sc	<p>Create matrices A, B and C and check whether the addition of the matrices is</p> <ol style="list-style-type: none"> i) Commutative ii) Associative iii) Distributive <ol style="list-style-type: none"> 2. Plot a graph of the following $f(t) = e^{t/10} \sin(t)$, $0 \leq t \leq 20$ 3. Write a function named cosine – series to evaluate the cosine series 4. Create a square matrix to find eigen values and eigen vectors 5. Create structure array to contain the following types of student data Student name, Admission number, E mail address, Test scores 6. Draw a filled a circle and view it in 3D 7. Draw a Pie chart for the given values of world population of various continents 8. To find mean, median and standard deviation of the of the given data 9. To find the integration value for the given function 10. To find the solution of a quadratic equation.
B.Sc (Computer Science), BCA,B.Sc(Information Technology)	II Year	<p>Skill Based Elective I: Assembly Language & Bio Python Programming Lab</p> <ol style="list-style-type: none"> 1. Write a BIOPYTHON program to create a dictionary from two lists without losing duplicate values. 2. Write a BIOPYTHON program to print the nucleotide name from single letter code 3. Write a BIOPYTHON program to find the molecular weight of a DNA sequence. 4. Write a BIOPYTHON program to find the distance between points using class.

	III Year	Skill Based Elective III: Case Tools And BioPerl Lab 1. Write a Bioperl program to retrieve a protein sequence in fasta format from Swissprot database. 2. Write a Bioperl program to retrieve a nucleotide sequence from Genbank database 3. Write a Bioperl program to translate a DNA sequence from Genbank to a protein sequence.
Geography	I Year	Preparation of Relief profiles from Survey of India topographic maps.
	II Year	Preparation of thematic maps- Chorochromatic, Choroschematic, Isopleths.
	III Year	GPS Survey and Mapping

12. Details of equipment purchased in each department from DBT grant.

Only recurring grant provided

12a. Non Recurring Expenditure: Nil

12b. Recurring Expenditure: Amount sanctioned on 12/03/2021

13. Details of books & journals subscribed from DBT grant: Nil

14. Qualitative improvements due to DBT support Please highlight (5 salient lines):

Mathematics	1. Certificate Course in Astronomy has been introduced for the students of Physics, Mathematics (SF) and Mathematics (aided). 2. Emphasis was given on Data Analytics for the III B. Sc and II B.Sc Mathematics students as it is the need of the hour. 3. A training programme in R Language was organized for II B.Sc to enhance the creativity of our students made them do real time projects. 4. SCILAB was taught to II B.Sc students which was very useful for them. 5. Symposium on Real Analysis was very useful for III B.Sc students which helped them even stronger in their basic mathematical concepts.
Computer Science	DBT fund has supported our department to conduct many guest lecturers to the students. Faculty development programme has enhanced the knowledge of staff members and also insights of data analytics with biological datasets.

	<p>Hands on training and workshops on biotechnology tools, techniques and application areas were organized so that the students now have the sound knowledge of what is Bio Informatics and projects were developed.</p> <p>The DBT fund has supported the Students to involve in various competitions.</p> <p>The DBT fund has supported the Students to Propose many research Projects.</p>
Geography	<p>The funding has enabled the department to carry out an effective extension program for adopted village schools.</p> <p>DBT fund has supported the department for organizing national level Symposium and workshop/hands on training for students in recent techniques and software of Geography. These recordings of the webinars have been uploaded in the You tube channel of the department of Geography.</p> <p>The funding has enabled the department to organize several guest lectures and field trips which expose students to a whole range of issues related to geography.</p>

15. Problems faced, if any, in implantation of the programme and utilization of DBT grant:

- Grants are sometimes sanctioned at the end of the year and so it becomes difficult to utilize the fund for that particular academic year.

DEPARTMENT	LESSON LEARNT	DIFFICULTIES FACED	SUGGESTION
Mathematics, Computer Sciences,	We have enhanced the skills in different core areas	Due to pandemic the events are conducted through online and no live interaction was possible .	Granted amount can be received at an earlier date to do the work even more effectively.
	Both practical and theoretical knowledge is gained	Due to the pandemic	We suggest we can do more hands on training/

Geography	from different experts	<p>situation and also because of the nonavailability of funds to organize programmes, we couldn't implement the desired goal.</p> <p>The online and remote teaching and learning method was the major challenge faced in 2020-21.</p> <p>Reaching the students in online, itself was tough with many students as first generation learners coming from economically poor background.</p> <p>Sustained Field visits/Industrial visits/ Hands on training/ Workshops were not conducted due to Covid 19 Pandemic lockdown restrictions. So students lacked the exposure to real time happenings.</p>	Workshops for the students if we are given funds at the pertinent time.
	We were able to compare the curriculum content with the industrial exposures		

16. Awards and Achievements: Nil

INNOVATIVE ACTIVITIES

DEPARTMENT	DATE	TOPIC	RESOURCE	EVENT
------------	------	-------	----------	-------

			PERSON	
MATHEMATICS	18.08.20	TIPS TO FACE PRESENT SCENARIO	Mr. M. Saji Sbraham, Director -Opertions, Ms. Tsemach Consultancy Private Ltd, Coimbatore	A motivational Programme
	10.09.20	Chinna siru Kiliyae Kannamma	Mr. Myileragu K. Sundararajan, Correspondent Guru kulam kids school, Coimbatore	A motivational Programme
	13.10.20	Youth Awakening Day	Prof. M.J. Prasad, Multi Lingual Motivational, Mentor	Motivational talk
	08.03.21	Awareness Programme	Dr. Jeeva PSGIMSR Coimbatore	Creating Cancer Cervix Awareness
Computer Science, BCA, Information Technology	18.07.20	Fitness and Health Nutrition	Ms.Chammu Balaji Fitness and Health Nutrition Specialist Muscat	A motivational Programme
	13.08.20	Website Creation	Mrs. Pooja Jain, Web and Graphics designer, 5 webic design, Sweden.	Workshop
	24.02.21	Digital Marketing	Mr. K. Santhosh Kumar, Digital Marketing Analyst, Accent Techno Soft, Coimbatore.	Workshop
	31.07.20	An Interactive Session on Post Covid 19 challenges in the Indian IT Industry	Mr. Senthil Kumar Balu, Senior Developer, Cred Ability, Manchester, United Kingdom.	International Seminar
	13.08.2020	“Human Excellence is Our Life Breath”		Motivational talk

GEOGRAPHY			Ms. Praveena Paul, Indian trustee and coordinator, Friends of India, A Swiss based NGO, Geneva, Switzerland	
	15.10.2020	“ignited minds :unleashing the power within you”	Mr.Ahamed Shameer R&D engineering Manager ,Mitel Communications Bangalore	Youth Awakening talk.
	20.10.2020	How to become an IAS/ IPS/IFS Officers?	KPR IAS Academy, institute for IAS,IPS, IFS Exams., No.5, AKS Nagar, Gandhipark, Coimbatore	Inspirational talk

Student's achievements:

DEPARTMENT	ACHIEVEMENTS
Computer Science, BCA, Information Technology	<ol style="list-style-type: none"> Ms.Aswathi.M, Ms.Rosa Deborah and Nithya Shree R.S from III B.Sc(IT) for completing 30 “Coursera” free courses and also around 102 students from the second and third year for completing courses offered free in Coursera through Sree Narayana Guru College during the pandemic period. Our students from Information Technology have participated and selected for the Second Stage in TOYCATHON around 17110 participants in all over India.

PUBLICATION BY THE FACULTY FOR THE YEAR 2020-2021

Department	Month	Name of the faculty	Topic	Journal	Impact factor
Mathematics	Jul-2020	Ludi, Dr.Sr.M.Helen	An application of BIFR on the study of lockdown on account of COVID -19	Journal of Information and computational	

				science(Ugc care group 2)	
Sep-2020	Sr. Stephy Stephen, Dr. M. Helen	Interval valued neutrosophic linear programming With Trapezoidal Numbers	International journal of analytical and experimental modal analysis.(UGC)	6.3	
Sep 2020	Monolisa, U.Mary, A. Arokia Lancy	On Chromatic Core Subgraph Of Cornona Graphs And Join graphs Which Admits Johan Coloring	Compliance Engineering Journal		
Oct-2020	Monolisa, Dr. U.Mary	On BDS coloring of Corona graphs of certain graphs	AIP conference proceedings(scopus)		
Oct-2020	K.Rajam Dr. U.Mary	Topological descriptors for product of complete graphs	AIP conference proceedings(scopus)		
Oct-2020	S.MonolisaDr.U. Mary, A.Arokia Lancy	A Chromatic Core Subgraph Of product of graph which admits Johan Coloring	Journal of information and computational science(UGC)	6.2	
Oct-2020	S.Monolisa, Dr.U.Mary, A. Arokia Lancy	On Johan Chromatic Core Subgraph of star related graphs and their product of graphs	International web conference on smart engineering technologies, Ramco Institute of Technology		
Oct 2020	Deepa .M, Dr. K. Julia Rose Mary	Heterogeneous arrival fluid driven by an M/M/1 queue with exponential vacations	International journal of analytical and experimental modal analysis	6.3	
Oct 2020	Deepa.M, Dr. K. Julia Rose Mary	M/M/1 Multiple vacations Queuing systems with Differentiated vacations under Mixed strategy of customers	AIP conference proceedings		
Dec 2020	Deepa.M, Dr. K. Julia Rose Mary	Bulk arrival tandem fluid model driven by an mx/m/1 vacation queue	Infokara research	5.3	
Aug2020	Dr.A.Sahaya Sudha	An Application Of Neutrosophic Linear Programming Problem in An	Strad Research Journal	6.1	

			Agricultural Environment		
Oct 2020	Vijayalakshmi, Dr.A.Sahaya Sudha ,	Solving Assessment Of MCDM Problems By TODIM Using Aggregated Weights” in the Neutrosophic Sets And Systems,	Neutrosophic Sets and System(UGC, Scopus)		
Oct 2020	Revathy, Dr.A.Sahaya Sudha	Solving LPP With Stochastic Neutrosophic Pythagorean Z numbers	AIP Conference Proceedings		
Oct 2020	Kokilamani, Dr.A.Sahaya Sudha	Double Refined Indeterminate Neutrosophic Number	Journal of Solid State Technology	0.3	
Oct 2020	Remya, Dr.Francina Shalini .A	Neutrosophic Vague binary BCK/BCI Algebra	Neutrosophic Sets and System(UGC, Scopus)	1.739	
Aug-2020	Priyadarshini, Dr. F.Nirmala Irudayam	Plithogenic cubic sets	International Journal of Neutrosophic Science		
Feb-2021	Mahima, Dr. K. Mohana	Interval valued Regular Weakly Generalized Closed Sets in Pythagorean Fuzzy Topological Spaces	International Journal of Analytical and Experimental Modal Analysis (UGC - Approved)	6.3	
Feb-2021	AArthi, Dr.K.Mohana	Connectedness In Interval Valued Pythagorean Fuzzy Topological Spaces	International Journal of Analytical and Experimental Modal Analysis (UGC- Approved)	6.3	
Sep-2020	Princy, Dr.K.Mohana	Spherical Bipolar fuzzy sets and its application in multi criteria decision making problem	Journal of new theory		
Dec-2020	R.Jansi, Dr.K.Mohana	Similarity measures of Pythagorean neutrosophic sets with dependent neutrosophic components between T and F	Journal of new theory		
Dec-2020	R.Jansi Dr. K. Mohana	Pythagorean neutrosophic subring of a ring	Journal of computational		

				mathematica	
	Nov 2020	Mary Margaret Dr.M.Trinita Pricilla	A note on various spaces in neutrosophic vague topological spaces	Strad Research	
	Jan 2021	Danapackiam, Dr.M.Trinita Pricilla	Application of neutrosophic vague nano topological spaces	Neutrosophic Sets and systems	
	August 2020	Mary Margaret ,Dr.M.Trinita Pricilla	A Novel Approach for Neutrosophic vague sets and their execution in Decision Making Problem	Strad Research Journal	
	Feb-2021	Merit Nikita Dr.Sr.A.Stanis Arul Mary,	b- Coloring for the Family of Paw Graph	Journal of Information and Computational Science (UGC-Approved)	6.3
	Feb-2021	Dr. Sr. A. Stanis Arul Mary	Heptopartitioned Neutrosophic Sets	International Journal of Creative Research Thoughts	
	Feb-2021	Lakshmi Priya Dr. Sr. A. Stanis Arul Mary,	Fuzzy Coloring Using Strong alpha Cut	International Journal For Science And Advance Research In Technology	
	Aug-2020	Jenita Nancy, A. Arokia Lancy	Conducive study on the generalized sets in neutrosophic bitopological settings	International journal of analytical and experimental modal analysis	
	Nov-2020	Jenita Nancy, Dr. A. Arokia Lancy	Separation axioms in vague bitopological spaces	Journal of XI'AN university of architecture and technology(Scopus. UGC care group 2)	3.7
Computer Science	July - 2020	C.Clement Sherlin	A Comparative Analysis of Web Structure Mining and Link Based Object Ranking	Mukt Shabd Vol-09 Issue-7 Pg.No 2546-2551 ISSN:2347-3150	4.6
	July -	R.Ushadevi	Detection of Malicious Node	Mukt Shabd	4.6

	2020		Present In Wireless Sensor Networks	Vol-09 Issue-7 Pg.No 2546-2551 ISSN:2347-315	
	July - 2020	Mrs.S.Kulandai Teresa	An Empirical Study On Web Mining Techniques and Applications	Mukt Shabd Journal	4.6
	February -2021	Ms.M.Muthumalathi	Topology Control using Cluster based Routing Techniques in Wireless Sensor Networks – A Survey	GIS SCIENCE JOURNAL (SCOPUS AND UGC CARE GROUP – II)	6.1
	July 2020	Ms.A.Aneesh Roopa	Security in Wireless Sensor networks using Cryptographic Algorithms	MuktShabd Journal volume IX, Issue VII	4.6
	August 2020	Mrs.K.Sindhya	Automated Plant Leaf Identification and Classification using Deep Learning Methods	JECA volume X, Issue VIII	6.1
Geography	May 2020	Sreelakshmy. M	Analysis of Land Use & Land Cover & Change Detection using Remote Sensing & GIS: A case study	Journal of Advanced Scientific Research	UGC Approved
	March 2021	Sreelakshmy. M	Application of geospatial techniques in delineation of Groundwater potential zones of Vannathangarai watershed of Noyyal river basin, Tamil Nadu, India	Indian Journal of Geography & Environment	UGC Approved

BOOKS PUBLISHED

Department	Month and Year	Name of the Staff	Book Title	ISBN No
------------	----------------	-------------------	------------	---------

**Computer
Science**

	March 2020	R.UmaMaheswari	Operating system-Objective Guide	B086642ZS6
			Database Administration and Management - Objective Guide	B086616DCP
	April 2020	M.LincyJacqueline	Operating system-Objective Guide	B086642ZS6
			Database Administration and Management - Objective Guide	B086616DCP
	March 2020	C.ClementSherlin	Digital Security :Objective Guide	B0868LRFV6
	Decemb er 2021	Mrs. C.ClementSherlin Mrs. A. Mary Theresa, Mrs.S.Kulandai Teresa Ms.M.Muthumalathi Mrs. K. Sindhya	Cyber Security	978-93-81723-98-2
			Digital Security	978-81-949829-4-4
	June 2020	S.MariaSylviaa	Database Administration and Management - Objective Guide	B086616DCP
	July 2020	R.Ushadevi	Digital Image Processing Objective Question and Answers	B08P52DZB2
			Computer Networking Skills	B086HP9Q7G
			Database Administration and Management - Objective Guide	B086616DCP
	March 2020	Mrs.S.Kulandai Teresa	System Software Objectives	B08697YTXG
	March 2020	Mrs.M.Judith Acquiline	Data mining and warehousing	B086DGZCPC

	March 2020	Ms.M.Muthumalathi	Computer Networking Skills	B086HP9Q7G
	July 2020	Ms.A.AneeshRoopa	Embedded System Questions and Answers E-Book	B0869P67GF
	July 20	Ms.A.AneeshRoopa, Mrs.K.Sindhya	Microprocessor Objective Question and Answers E-Book	B08NHP9X35

PAPER PRESENTATION BY THE FACULTY

Department	Date	Name of the faculty	Topic	Category	Organizing Committee
Mathematics	20.12.2020	Dr.K.Julia Rose Mary	Tandem fluid model driven by an mx/m/1 queue subject to balking and vacations	International	86 th annual conference of Indian mathematical society
Geography	26.08.2020 to 27.08.2020	A.Franchina Mary	Morphometric Analysis of Pykara River Basin Using Remote Sensing And Geographic Information System	International	Department of Civil Engineering, Sri Shakthi Institute of Engineering and Technology, L&T By-Pass, Chinniyampalayam, Coimbatore - 641 062, Tamil Nadu, India.

17. OUTREACH ACTIVITIES

DEPARTMENT	ACTIVITY
Mathematics	<ul style="list-style-type: none"> Visited the Palamalai village and helped the villagers by giving vegetables during

	the pandemic. We taught simple maths for the village children.
Computer Science, Computer Applications and Information Technology	<ul style="list-style-type: none"> • Visited Palamalai village for giving awareness and need of computer-based education in the modern world. • Visited Ranganathpuram for education on mobile banking. • Visited Ranganathpuram for giving awareness on women empowerment. • Visited Palamalai village for giving awareness on Mobile Applications for getting Government documents.
Goegraphy	<ul style="list-style-type: none"> • Extensive community and extension activities from lab to land have been executed. • Visited Palamalai village during the pandemic and offered essential commodities. • The students created an awareness regarding personal hygiene and sops for Covid 19. • The villagers were jobless during the pandemic and the groceries that were distributed helped them a lot

18. SELF EVALUATION

DEPARTMENT	OBJECTIVES	PERCENTAGE ACHIEVED	REASONS FOR UNDER ACHIEVEMENT/IF ACHIEVED
------------	------------	---------------------	---

Mathematics	To focus research oriented projects in SCILAB and MATLAB	60%	Workshop was conducted for the students to do their projects.
	To organize field trips	0%	Since we were in pandemic
	To introduce R language and Data Analytics	100%	We have introduced these papers for our undergraduate students.
Computer Science, Computer Applications and Information Technology	To provide training for the UG students apart from their curriculum.	50%	Due to pandemic situation and for not having received the fund at an earlier date for organizing the events.
	To enhance the student skill based on the industry needs	65%	
Geography	To provide facilities for hands on experience with GIS Softwares and GPS survey	50%	Online training for QGIS only imparted.GPS survey was not allowed due to pandemic restrictions.
	Field trips to areas of geographic interest both physical and socio economic.	0%	Covid 19 restrictions in most of the biosphere national parks and different landforms and geomorphologic systems
	Measures to upgrade the skills of faculty. Retraining of faculty through organization of workshops for the new practical. By attending training programs organized by various Institutions.	90%	Faculty members were able to attend online faculty development programs.
	To revive the importance of Geography by	90%	Conducted international level

	conducting symposia and workshops to schools and neighboring colleges		webinars on different subfields and topics of geography with internationally renowned eminent experts and the deliberations helped us to be popular throughout India and also attracted participants from other countries as well.
--	---	--	--

Annual Report submitted to DBT for the year 2020 to 2021, under the Star college scheme.

Pawlin Vasanthi

Co-ordinator
Dr Pawlin Vasanthi Joseph
Associate Prof and Head
Department of Zoology

Pawlin Vasanthi Joseph
 Head of the Dept of Zoology
 Nirmala College for Women (Autonomous)
 COIMBATORE - 641 018

H. M.

Principal
Dr Sr Helen M
Nirmala College for women (Autonomous)
Coimbatore, TamilNadu
Principal
Nirmala College for Women
(Autonomous)
Coimbatore - 641 018.