SI. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Year of collabor ation	Duration	Nature of the activity
		YF	EAR 1 (2019-2	0)		
1	Internship- Studies On Development Of Flexible Polyurethane Foam As Crew Seat	Application Development Division, VSSC, Thiruvananthapura m	Aparna S	2020	3 Months - January - March 2020	MSc Research Project
2	Internship-Modulating Lower Critical Solution Temperature Of Supramolecular Polymer By Adding Water Soluble Dyes	Chemical Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m	Athira Gopan	2020	3 Months - January - March 2020	MSc Research Project
3	Internship- Synthesis of Various N-Substituted Isatins	Chemical Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m	Deepanjana Mohan	2020	3 Months - January - March 2020	MSc Research Project
4	Internship- Study on Effect of Sulphuric Acid In The Leaching Process During The Manufacture Of Titanium Dioxide	Travancore Titanium Products Limited, Thiruvananthapura m	Dhanya Krishnan U R	2020	3 Months - January - March 2020	MSc Research Project

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5	Internship- DFT Study On The Interaction Of CO <sub>2</sub> With Lone Pair Bearing Molecule	Chemical Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m	Fasni S	2020	3 Months - January - March 2020	MSc Research Project
6	Internship- Copper Modified Polycarbosilane: A Preliminary Study On Its Structure And Catalysis	Ceramic Matrix Products Division, VSSC, Thiruvananthapura m	Lavanya B Sajeev	2020	3 Months - January - March 2020	MSc Research Project
7	Internship- Development Of Polyimide Foam From Dianhydride And Isocyanate	Project Engineering And Productionization Facility Division, VSSC, Thiruvananthapura m	Lekshmi A	2020	3 Months - January - March 2020	MSc Research Project
8	Internship- Studies On Effect Of Catalyst On The Kinetics Of Polyol-Isocyanate Reaction	Application Development Division, VSSC, Thiruvananthapura m	Malavika K G	2020	3 Months - January - March 2020	MSc Research Project
9	Internship- Phenothiazine Based Organic D-D-π-A Dyes For Dye- Sensitized Solar Cells	Chemical Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m	Meenakshy C B	2020	3 Months - January - March 2020	MSc Research Project

10	Internship- Studies On Dopamine And Glycidyl Methacrylate Modified Epoxy Adhesive For Metals	Polymers And Special Chemicals Division, VSSC, Thiruvananthapura m	Meeval Stishi George	2020	3 Months - January - March 2020	MSc Research Project
11	Internship- A New Pyridinium Fluorophore For Multichannel pH Sensing Of Endoplasmic Reticulum In Live Cells	Chemical Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m	Sreelekshmi S R	2020	3 Months - January - March 2020	MSc Research Project
12	Internship- Preparation Of Rutile Titanium Dioxide By Using Titanium Oxychloride As Nucleating Agent	Travancore Titanium Products Limited, Thiruvananthapura m	Vishnupriya U	2020	3 Months - January - March 2020	MSc Research Project
13	Online Teaching	Kerala State Higher Education Council, Govt. Of Kerala	Dept of Hindi	2020	Ongoing since March 2020	Faculty Consultancy
14	Presentation of Guidelines for Walk With a Scholar (WWS) Training	The New Initiatives in Higher Education, Directorate of Collegiate Education, Govt.of Kerala	Maya Menon	2019	2 days - August 2019	Research and Training

15	Presentation in the Technical Session for Walk With a Scholar (WWS) Master Mentor Training	The New Initiatives in Higher Education, Directorate of Collegiate Education, Govt.of Kerala	Maya Menon	2019	2 days - August 2019	Research and Training
16	Workshop for Guidance and Counselling	State Council of Educational Research and Training (SCERT), Govt of Kerala	Maya Menon	2019	1 day - August 2019	Research and Training
17	Adolescent Education Module Modification Workshop	Dirctorate of General Education, Govt.of Kerala	Maya Menon	2019	2 days - November 2019	Workshop and Training
18	Expert in the Workshop for Talent Lab	State Council of Educational Research and Training (SCERT), Govt of Kerala	Shiju Joseph	2019	2 days - September 2019	Research Expert and Training
19	Expert in the Workshop for Talent Lab	State Council of Educational Research and Training (SCERT), Govt of Kerala	Shiju Joseph	2019	1 Day - November 2019	Research Expert and Training
20	Adolescent Education Module Modification Workshop	Dirctorate of General Education, Govt.of Kerala	Shiju Joseph	2019	2 days - November 2019	Workshop and Training

21	Workshop and Training on Film Art	Kerala Chalachithra Academy and Centre for Development of Imaging Technology, Chithranjali Studio,Thiruvanant hapuram	Dept. of Malayalam	2019	7 days - October- November 2019	Collaborative Seminar and Workshop
22	Seminar on O V Vijayan, Celebrating 50th year of the Novel Khasakkinte Ithihasam	O V Vijayan Smaraka Samithi, Palakkad, Kerala	Dept. of Malayalam	2019	1 day- November 2019	Collaborative Seminar
23	Student Internship	Keraka State Handloom Weavers Cooperative Society Ltd H.232, Hantex, Thiruvananthapura m	Anaswara JR	2019	16 Days - September- October 2019	M.Com Research Project
24	Student Internship	Kerala Tourism Development Corporation, Thiruvananthapura m	Bhagyasree Pillai	2019	6 months - September 2019-March 2020	M.Com Research Project
25	Student Internship	Trivandrum Service Co-operative Bank Ltd. No.T.131, Press Road, Thiruvananthapura m	Athira S	2019	16 Days - September- October 2019	MCom Internship

26	Student Internship	Centre For Management Development, Thiruvananthapura m	Divyalal S S	2019	16 Days - September- October 2019	MCom Internship
27	Student Internship	Trivandrum Service Co-operative Bank Ltd. No.T.131, Press Road, Thiruvananthapura m	Chinchu G	2019	16 Days - September- October 2019	MCom Internship
28	Student Internship	Centre For Management Development, Thiruvananthapura m	Mamatha V G	2019	16 Days - September- October 2019	MCom Internship
29	Student Internship	Keraka State Handloom Weavers Cooperative Society Ltd H.232, Hantex, Thiruvananthapura m	Unnimaya S	2019	16 Days - September- October 2019	MCom Internship
30	Student Internship	Keraka State Handloom Weavers Cooperative Society Ltd H.232, Hantex, Thiruvananthapura m	Sonu Reji	2019	16 Days - September- October 2019	MCom Internship

31	Student Internship	Indo Grace Ecommerce, PVT. Ltd, Thumba, Thiruvananthapura m	Amina S	2019	16 Days - September- October 2019	MCom Internship
32	Student Internship	Keraka State Handloom Weavers Cooperative Society Ltd H.232, Hantex, Thiruvananthapura m	Athira Anilkumar	2019	16 Days - September- October 2019	MCom Internship
33	Student Internship	Keraka State Handloom Weavers Cooperative Society Ltd H.232, Hantex, Thiruvananthapura m	Abhirami S P	2019	16 Days - September- October 2019	MCom Internship
34	Student Internship	Kerala Tourism Development Corporation, Thiruvananthapura m	Archa G P	2019	6 months - September 2019-March 2020	MCom Internship
35	Student Internship	Pangode Service Co-Operative Bank LTD. T 212, Thiruvananthapura m	Anooja G	2019	18 Days - September- October 2019	MCom Internship

36	Student Internship	Hantex, Thiruvananthapura m	Sivasree A S	2019	15 Days - September- October 2019	MCom Internship
37	Student Internship	Divisional Office of Southern Railway, Thiruvananthapura	Resmi Raj S	2019	15 Days - September- October 2019	MCom Internship
38	Student Internship	Divisional Office of Southern Railway, Thiruvananthapura	Aathira G Nair	2019	15 Days - September- October 2019	MCom Internship
		YI	EAR 2 (2018-19	<del>)</del> )		
39	Internship- Synthesis of Bipyridine - Viologen Ligands and Metal Compexes for Electrochromic Applications	Photosciences and Photonics Section, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Sruthi Krishna S	2019	3 months -April-June 2019	M.Sc Research Project
40	Resource Person, National Seminar-Dynamics of Indian Society, Govt. Arts and Science College, Nandapuram, Calicut	Govt. Arts and Science College, Nandapuram, Calicut and DCE, Govt. of Kerala	Shiju Joseph	2019	1 Day- January 2019	Resource Person in National Seminar

41	Mentor, ASPIRE Scholarship: Nature of consciousness- An inquiry into the Subjective idealism of Yogacara School of Buddhism	Dept. Of Philosophy, University College, Thiruvananthapura m, Affiliated to Kerala University	L Vijay	2019	60 Days- February- April 2019	Mentoring and Training- ASPIRE Scholarship
42	Student Internship	Mental Health Center, Thiruvananthapura m Contact 0471- 2433868	Jilu Mary Luke	2019	30 Days - May 2019	Psychology Internship
43	Student Internship	Dept. of Psychology and Psychiatry, NIMS Research Foundation, Neyyantinkara,Thir uvananthapuram 0471-2223544	Lakshmi S Kumar	2019	30 Days- May 2019	Psychology Internship
44	Student Internship	Bethsada Hospital, Vengola, Perumbavoor, Ernakulam - 04842523466	Neha Elizabath Eldho	2019	29 days - April 2019	Psychology Internship
45	Student Internship	Our Planet International School, Muscat	Noora Aqthar Muhammedali	2019	30 Days- May 2019	Psychology Internship

46	Student Internship	TRADA- Intergrated Rehabilitation Centre for Addicts IRCA, Manganam, Kottayam 04812573699	Parvathy K S	2019	42 Days - April-My 2019	Psychology Internship
47	Student Internship	Mental Health Action Trust, Kozhilode 04952300103	Gayathri Devi J S	2019	30 Days - April 2019	Psychology Internship
48	Student Internship	Mental Health Action Trust, Kozhilode 04952300103	Megha D Prasad	2019	30 Days - April 2019	Short-term Psychology Internship Program of MHAT
49	Student Internship	Mental Health Action Trust, Kozhilode 04952300103	Bhagya Lakshmi	2019	30 Days - April 2019	Short-term Psychology Internship Program of MHAT
50	Student Internship	Mental Health Action Trust, Kozhilode 04952300103	Sreedevi J	2019	30 Days - April 2019	Short-term Psychology Internship Program of MHAT
51	Student Internship	Mental Health Action Trust, Kozhilode 04952300103	Greeshma Ghosh	2019		Short-term Psychology Internship Program of MHAT
52	Student Internship	Mental Health Action Trust, Kozhilode 04952300103	Neeraja R	2019	30 Days - April 2019	Short-term Psychology Internship Program of MHAT

53	Student Internship	Kerala Social Security Mission,Thiruvana nthapuram	Archana Babu	2019	30 Days - April-May 2019	Short-term Psychology Internship Program of MHAT
54	Student Internship	Kerala Social Security Mission,Thiruvana nthapuram	Santhy Krishna	2019	30 Days - April-May 2019	Psychology Internship
55	Student Internship	Karunasai De- addiction and Mental Health Research Institute, Vellanad, Thiruvananthapura mm, Contact 0472- 2883856	Abhirami Nair S	2019	20 days - April-May 2019	Psychology Internship
56	Student Internship	Karunasai De- addiction and Mental Health Research Institute, Vellanad, Thiruvananthapura mm, Contact 0472- 2883856	Reshma Jyothi S	2019	20 days - April-May 2019	Psychology Internship

57	Student Internship	Karunasai De- addiction and Mental Health Research Institute, Vellanad, Thiruvananthapura mm, Contact 0472- 2883856	Krishna Veni M S	2019	20 days - April-May 2019	Psychology Internship
58	Student Internship	Wellness Clinic, Calicut, Kerala 04954016444	Gopika P	2019	30 Days- May 2019	Psychology Internship
59	Student Internship	National Institute of Speech & Hearing,Thiruvana nthapuram	Sneha A Manuel	2019	32 Days- April-May 2019	Psychology Internship
60	Student Internship	Mental Health Center, Thiruvananthapura m	Sruthy A S	2019	53 Days- April-May 2019	Psychology Internship
61	Student Internship	Mental Health Center, Thiruvananthapura m	Anseena Ashraf	2019	49 Days- April-May 2019	Psychology Internship
62	Student Internship	,	Sneha Sambath P V	2019	50 Days- April-May 2019	Psychology Internship
63	Student Internship	Mental Health Center, Thiruvananthapura m	Akshara Sudarsan	2019	52 Days- April-May 2019	Psychology Internship

64	Student Internship	Mental Health Center, Thiruvananthapura m	Anooja R	2019	52 Days- April-May 2019	Psychology Internship
65	Student Internship	Mental Health Center, Thiruvananthapura m	Arya P T	2019	30 Days - May 2019	Psychology Internship
66	Student Internship	Mental Health Center, Thiruvananthapura m	Chenkathir Arya	2019	30 Days - May 2019	Psychology Internship
67	Student Internship	Mental Health Center, Thiruvananthapura m	Fathima Banu C A	2019	30 Days - May 2019	Psychology Internship
68	Student Internship	Mental Health Center, Thiruvananthapura m	Ganga Mohan	2019	30 Days - May 2019	Psychology Internship
69	Student Internship	Mental Health Center, Thiruvananthapura m	Heema Das R	2019	30 Days - May 2019	Psychology Internship
70	Student Internship	Mental Health Center, Thiruvananthapura m	Kaveri T S	2019	30 Days - May 2019	Psychology Internship
71	Student Internship	Mental Health Center, Thiruvananthapura m	Seethal Shyama S S	2019	30 Days - May 2019	Psychology Internship

72	Student Internship	Mental Health Center, Thiruvananthapura m	Sifana Hussain	2019	30 Days - May 2019	Psychology Internship
73	Student Internship	Mental Health Center, Thiruvananthapura m	Sneha Liz Philip	2019	30 Days - May 2019	Psychology Internship
74	Student Internship	Mental Health Center, Thiruvananthapura m	Sreelekshmi S B	2019	30 Days - May 2019	Psychology Internship
75	Student Internship	Mental Health Center, Thiruvananthapura m	Aiswarya M	2019	30 Days - May 2019	Psychology Internship
76	Student Internship	Mental Health Center, Thiruvananthapura m	Aparna S	2019	30 Days - May 2019	Psychology Internship
77	Student Internship	Mental Health Center, Thiruvananthapura m	Krishna Prabha A R	2019	30 Days - May 2019	Psychology Internship
78	Student Internship	Mental Health Center, Thiruvananthapura m	Praveena Raj I	2019	48 Days- April-May 2019	Psychology Internship
79	Student Internship	Mental Health Center, Thiruvananthapura m	Dhanuja M S	2019	52 Days- April-May 2019	Psychology Internship

80	Student Internship	Mental Health Center, Thiruvananthapura m	Vyshnavi V M	2019	53 Days- April-May 2019	Psychology Internship
81	Student Internship	Institute for Communicative and Cognitive Neurosciences - ICCONS, Thiruvananthapura m -04716066061	Samkhili P	2019	60 Days- April-May 2019	Psychology Internship
82	Student Internship	Institute for Communicative and Cognitive Neurosciences - ICCONS, Thiruvananthapura m - 04716066061	Archana Mohan	2019	60 Days- April-May 2019	Psychology Internship
83	Student Internship	Inclusion Central, Kochi - 04842340756	Muhsina T H	2019	60 Days- April-May 2019	Psychology Internship
84	Jeevani- Module for College Counsellors	Dept. of Collegiate Education- DCE, Kerala and NIMHANS, Bangluru	Dept. of Psychology	2019	Ongoing Since 2019	Project-Counselling

85	ASPIRE-Internship- Post- synthetic modification of hyper- crosslinked ketone based microporous polymer for CO2 adsorption	Dr. Suneesh C V, Asst. Professor, Department of Chemistry, University of Kerala, Kariavattom, Thiruvananthapura m	Gopika S	2019	20 Days- March 2019	ASPIRE Scholarship Project
86	ASPIRE-Internship- Quality monitoring of portable water samples collected feom groundwater sources in Trivandrum area, Special reference to nutrients	Dr. K. Anoop Krishnan, Scientist, Hydrological Processes group, National Centre for Earth Science Studies, Thiruvananthapura m	Lekshmi C Nair	2019	32 Days- March- April 2019	ASPIRE Scholarship Project
87	ASPIRE-Internship- Comparison of hydrochemistry of Karamanariver and adjacent groundwatersystems in urbanized areas of Trivandrum district	Dr. K. Anoop Krishnan, Scientist, Hydrological Processes group, National Centre for Earth Science Studies, Thiruvananthapura m	Maneesha S	2019	32 Days- March- April 2019	ASPIRE Scholarship Project

88	Internship- Synthesis and Characterization of TiO2 for Dye Sensitized Solar Cells	Photosciences and Photonics Section, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Arya L P	2019	3 months- April-June 2019	MSc Research Project
89	Internship- Synthesis and Characterization of 1,2- Dihydropyridines via Three Component Reaction with Aminophenol, Dienaminodioate and Variable Aldehydes	Organic Chemistry Section, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Asha R S	2019	3months- April-June- 2019	MSc Research Project
90	Internship- Studies on Development of Fireproof Fabrics for Space Application	Propellant Fuel Complex, Vikaram Sarabhai Space Centre (VSSC), Thiruvananthapura m-695022	Aswathy G	2019	3 months - April-June- 2019	MSc Research Project
91	Internship- Isolation of Bioactives from Hexane Extract of Medicinally Important Plant Curcuma Aromatica	Organic Chemistry Section, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Devipriya S	2019	3 months -April-June- 2019	MSc Research Project

92	Internship- Isolation and Characterization of bisbenzylisoquinoline (DBBI) Alkaloids from the Rhizome of Cyclea peltata Hook.f. & Thoms.	Organic Chemistry Section, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Gopika S	2019	3 months -April-June- 2019	MSc Research Project
93	Internship- Synthesis of PEO Based Hydrid Composite Solid Electrolyte and Study of its Ionic Conductivity with Variation of Temperature	Advanced Power Systems Division, Vikaram Sarabhai Space Centre (VSSC), Thiruvananthapura m-695022	Lekshmi C Nair	2019	3 months -April-June- 2019	MSc Research Project
94	Internship- Evaluation of Performance of Phenolic Microspheres in Ablative TPS Application	Propellant Fuel Complex, Vikaram Sarabhai Space Centre (VSSC), Thiruvananthapura m-695022	Maneesha S	2019	3 months -April-June- 2019	MSc Research Project
95	Internship- Preparation and Characterization of Core-Shell Material in Solid Propellants	Propellant Engineering Division, Vikaram Sarabhai Space Centre (VSSC), Thiruvananthapura m-695022	Ramnu S Shaheed	2019	3 months -April-June- 2019	MSc Research Project

96	Internship- Phytochemical Investigation of Ficus benghalensis (Stem Bark)	Organic Chemistry Section, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Shilpa B	2019	3 months -April-June- 2019	MSc Research Project
97	Youth Exchange Programme of NCC conducted at Vietnam	Director General, NCC, India	Akshaya Jose	2018	9 days	Participant as NCC Cadet in Youth Exchange Programme
98	HSSTTP-General Module Planning	State Council of Educational Research and Training (SCERT), Govt of Kerala	Maya Menon	2018	1 day- November 2018	Research and Training
99	HSSTTP-General Module Planning	State Council of Educational Research and Training (SCERT), Govt of Kerala	Shiju Joseph	2018	1 day- November 2018	Research and Training
100	HSSTTP-Module Preparation	State Council of Educational Research and Training (SCERT), Govt of Kerala	Shiju Josseph	2018	3 Days- October 2018	Research and Training
101	Workshop - Collaboration	Creative Psychologist- Applying Art in Psychology	Aparna S	2018	3 Days- November 2018	Collaboration Workshop
102	Student Internship	Stalwart People Company (SPC), Gurgaon, India	Naurin Sitara	2018	71 Days- September - November 2018	HR Internship

		YI	EAR 3 (2017-18	3)		
103	Student Internship	Institute of Mental Health and Neurosciences - IMHANS, Kozhikode-08	Varna P	2018	7 Days -April 2018	Psychology Internship
104	Student Internship	Mental Health Center, Peroorkkada, Thiruvananthapura m	Amala Sivakumar	2018	30 Days - April 2018	Psychology Internship
105	Student Internship	Child Development Centre, Medical College Campus, Thiruvananthapura m	Sameera AS	2018	15 days - May 2018	Psychology Internship
106	Student Internship	Mental Health Center, Peroorkkada, Thiruvananthapura m	Saranya K	2018	30 Days - April 2018	Psychology Internship
107	Student Internship	Institute for Communicative and Cognitive Neurosciences - ICCONS, Thiruvananthapura m -04716066061	Ziya Arun	2018	30 Days - April-May 2018	Psychology Internship

108	Internship-Water Quality assessment of Vamanapuram River: A small study of Vamanapuram Watershed.	Hydrological Processes Group, NCESS (ESSO), Thiruvananthapura m-695011	Devi A S	2018	3 months- April-June 2018	MSc Research Project
109	Internship-Characterisation and Quantification of Tetrel Bonds: A Theoretical Study.	Computational Chemistry, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Arya M R	2018	3 months- April-June 2018	MSc Research Project
110	Internship-Hydrogeochemistry of Idamalayar Catchment: Dissolved Load Sources, Controlling Factors and Quantification.	Hydrological Processes Group, NCESS (ESSO), Thiruvananthapura m-695011	Aiswarya A U	2018	3 months- April-June 2018	MSc Research Project
111	<u> </u>	Crustal Processes Group, NCESS (ESSO), Thiruvananthapura m-695011	Gayathri Devi E S	2018	3 months- April-June 2018	MSc Research Project
112	1,3,4-Oxadiazole derivatives for	Photoscience and Photonics Section, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Sana A S	2018	3 months- April-June 2018	MSc Research Project

113	Internship-Revamping of Montmorillonite clay with Chitosan for the removal of aqueous Phospate along with assessment of Water quality parameters of Nethravathi River.	Hydrological Processes Group, NCESS (ESSO), Thiruvananthapura m-695011	Amrutha P R	2018	3 months- April-June 2018	MSc Research Project	
114	Internship- A unique paradigm of a D-A-D based pyrilium and pyridinium Fluorescence probes for ratiometric pH sensing and imaging of Lysosome.	Photoscience and Photonics Section, Chemical Sciences and Technology Division, NIIST (CSIR), Thiruvananthapura m-695019	Praveena L P	2018	3 months- April-June 2018	MSc Research Project	
115	Student Internship	Mental Health Center, Thiruvananthapura m	Divya E	2018	30 Days - April 2018	Psychology Internship	
			YEAR 4 (2016-17)				
116	Skill Mentorship for Innovative Life Experience Training Camp- SMILE, Additional Skill Acqisition Programme ASAP	Skill Mentorship for Innovative Life Experience - SMILE collaboration with Additional Skill Acqisition Programme - ASAP, Govt of Kerala, Thiruvananthapura m	Sruthy Murali	2017	3 Days- April 2017	Psychology Training session on Career decision making	

117	Internship- Cashew Nut Shell Liquid as Bio-Surfactant for Alumina Hybrid Coatings	Dr.S. Ananthakumar, Scientist, Material Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m, Kerala-695019	Arunima A	2017	3 Months- April-June 2017	MSc - Research Project
118	Internship- Synthesis of Organic Nanoparticle Composed of Frechet Type Dendrons and its Surface Modification Through Grafting of Aryl Radical	Dr.K. R. Gopidas, Chief Scientist Photosciences and Photonics Section, Chemical Sciences and Technology Division,CSIR- NIIST, Thiruvananthapura m, Kerala-695019	Athira R S	2017	3 Months- April-June 2017	MSc - Research Project
119	Internship- Investigation of Interaction Dynamics of Hematin with an Antimalarial Drug Chloroquine using Absorption,Fluorescence, and Transient Absorption Spectroscopy	Dr. V. Karunakaran, Senior Scientist Photosciences and Photonics Section, Chemical Sciences and Technology Division,CSIR- NIIST, Thiruvananthapura m, Kerala-695019	Simi Thomas	2017	3 Months- April-June 2017	MSc - Research Project

120	Internship- Employing Covalent and Non-covalent Synthetic Methodologies in the Molecular and Supramolecular System Studies	Dr. Sunil Varughese, Senior Scientist, C. V. Raman Block Chemical Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m, Kerala-695019	Sneha Sara Varghese	2017	3 Months- April-June 2017	MSc - Research Project
121	Internship- Utilization of Secondary Amines in Ugi Reaction for the Synthesis of Benzofuran	Dr. L.Ravishankar, Scientist, Organic Chemistry, Chemical Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m, Kerala-695019	Sruthi Samban	2017	3 Months- April-June 2017	MSc - Research Project
122	Internship- Preparation and Characterisation of Al(Ill) Doped ZnFe2O4 Pigments with Solar Reflectance	Dr. Nishanth K. G., Scientist, Material Sciences and Technology Division, CSIR- NIIST, Trivandrum, Kerala-695019	Suhara Beevi S	2017	3 Months- April-June 2017	MSc - Research Project
123	Mental Health Research Project and Training	Director, Centre on the Death Penalty, National Law University, New Delhi	Maya Menon	2017	30 Days- April-May 2017	Research and Training

124	Mental Health Research Project and Training	Director, Centre on the Death Penalty, National Law University, New Delhi	Shiju Joseph	2017	30 Days- April-May 2017	Research and Training
125	Personality Test Preparation for student applicants at NISH	National Institute of Speech & Hearing, NISH- Thiruvananthapura m	Maya Menon	2016	1 Day- November 2016	Research and Training
		YF	EAR 5 (2015-16	<u>(i)</u>		
126	Resource person for the Design and development of modules for Adolescent Life Skills Training Program	Skill mentorship for Innovative life experience (SMILE) Additional Skill Acquisition Programme-ASAP, Govt. of Kerala	Maya Menon	2016	1 Day- April 2016	Resource person in Module Preparation
127	Resource person for developing psychometric tool for aptitude identification in Adolescent Life Skills Training Program	Skill mentorship for Innovative life experience (SMILE) Additional Skill Acquisition Programme-ASAP, Govt. of Kerala	Shiju Joseph	2016	1 Day- May 2016	Resource person in Module Preparation

128	Student Internship	Child Development Center, Trivandrum Medical College Campus,Trivandru m Contact - 0471- 2553540	2016	13 days- May 2016	Psychology Internship
129	Student Internship	Child Development Center, Trivandrum Medical College Campus, Trivandru m Contact - 0471- 2553540	2016	14 days- May 2016	Psychology Internship
130	Student Internship	Child Development Center, Trivandrum Medical College Campus,Trivandru m Contact - 0471- 2553540	2016	13 days- May 2016	Psychology Internship

131	Student Internship	Child Development Center, Trivandrum Medical College Campus,Trivandru m Contact - 0471- 2553540	2016	12 days- May 2016	Psychology Internship
132	Student Internship	Child Development Center, Trivandrum Medical College Campus, Trivandru m Contact - 0471- 2553540	2016	12 days- May 2016	Psychology Internship
133	Student Internship	Child Development Center, Trivandrum Medical College Campus,Trivandru m Contact - 0471- 2553540	2016	11 days- May 2016	Psychology Internship

134	Student Internship	Child Development Center, Trivandrum Medical College Campus, Trivandru m Contact - 0471- 2553540		2016	12 days- May 2016	Psychology Internship
135	Internship- Synthesis and Characterization of High IR Reflecting Inorganic Pigments based on Rare earth doped Bi2Ce2O7 System for Enenrgy saving Applications.	Dr. P. Prabhakar Rao, Chief Scientist & Head, Materials Science & Technology Division, National Institute of Interdisciplinary Science & Technology, Thiruvananthapura m	Arathijith P.B.	2016	3 Months- April-June 2016	MSc - Research Project
136	Internship- Effect of different Alcohols on the Stability of Phenol - Formaldehyde Resign.	Temina Mary Robert, Scientist, Polymers and Special Chemicals Division, Vikram Sarabhjai Space centre, Thiruvananthapura m	Aswini Narayanan	2016	3 Months- April-June 2016	MSc - Research Project

137	Internship- Synthesis and Optical Properties of La2CuGe2O8 based green pigments.	Dr. P. Prabhakar Rao, Chief Scientist & Head, Materials Science & Technology Division, National Institute of Interdisciplinary Science & Technology, Thiruvananthapura m	Divya Jayan	2016	3 Months- April-June 2016	MSc - Research Project
138	Internship - Isolation and Synthestic Trasformation of Bioactives from Azadirachta Indica Leaves	Dr. Sasidhar B S, Scientist, Organic Chemistry Division, CSIR - National Institute of Interdisciplinary Science & Technology, Thiruvananthapura m	Gayathri R.S.	2016	3 Months- April-June 2016	MSc - Research Project
139	Internship- Isolation and Identification of Phytochemical Constituents of Methanolic Extract of Coccinia Grandis (IVY Gourd)	Dr. L.Ravishankar, Scientist, Organic Chemistry, Chemical Sciences and Technology Division, CSIR- NIIST, Thiruvananthapura m, Kerala-695019	N. Anjali	2016	3 Months- April-June 2016	MSc - Research Project

140	Internship- Dye - Removal using Activated Carbon and Fe3O4/Oxidized Activated Carbon Magnetic Nanocomposite	Dr. Satyajit Shukla, Senior Scientist, Functional Materials Section, Material Science & Technology Division, CSIR- NIIST, Thiruvananthapura m, Kerala-695019		2016	3 Months- April-June 2016	MSc - Research Project
41	its derivative preparation	Dr. Ani Deepthi. Asst. Professor, Dept. of Chemistry, School of Physical and Mathematical sciences, University of Kerala, Kariavattom, Thiruvananthapura m	N. Anjali	2015		ASPIRE Scholarship Project

PRINCIPAL BOYT. COLLEGE FOR WOMEN THRUVANANTHAPURAMALI

# 2019 - 2020

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## STUDIES ON DEVELOPMENT OF FLEXIBLE POLYURETHANE FOAM AS CREW SEAT

Project report

In partial fulfillment of the award of the degree of

Master of Science in Chemistry

Submitted by

APARNAS

Candidate code: 63518107001

Under the guidance of

### Ms. REMYA BALAKRISHNAN

Scientist/Engineer-SE
Application Development Division
Vikram Sarabhai Space Centre
Thiruvananthapuram



DEPARTMENT OF CHEMISTRY

GOVT.COLLEGE FOR WOMEN

VAZHUTHACAUD, THIRUVANANTHAPURAM, KERALA

UNIVERSITY OF KERALA

SEPTEMBER 2020

Aline .

PRINCIPAL 60VT. COLLEGE FOR WOMEN THRUVANANTHAPUBAM-14



#### CERTIFICATE

This is to certify that Ms APARNA S, Master of Science in Chemistry, Govt College for Women, Thiruvananthapuram, worked on the topic, entitled as 'STUDIES ON DEVELOPMENT OF FLEXIBLE POLYURETHANE FOAM AS CREW SEAT' under my supervision at Vikram Sarabhai Space Centre, Thiruvananthapuram, in partial fulfillment of the requirements for the award of Master of Science in Chemistry, University of Kerala, Thiruvananthapuram. The present work or any part thereof has not been submitted elsewhere for any degree.

Project Guide

REMYA BALAKRISHNAN

Scientist/Engineer-SE

Application Development Division

Division Head

NALLAPERUMAL A.M.

Scientist/Engineer-SG

Application Development division

PART WITH DESCRIPTION OF THE PART APPOINTS OF THE STATE O

PRINCIPAL COVT. COLLEGE FOR WOMEN THRUVANANTHAPURAM-14



#### MODULATING LOWER CRITICAL SOLUTION TEMPERATURE OF SUPRAMOLECULAR POLYMER BY ADDING WATER SOLUBLE DYES

A Project Report Submitted for the Partial Fulfillment

of the Requirements for the Degree of

MASTER OF SCIENCE

IN

CHEMISTRY

DY

ATHIRA GOPAN



Register No: 63518107002

DEPARTMENT OF CHEMISTRY

GUVI. COLLEGE FOR WOMEN, THIRUVANANTHAPURAM

Under the Supervision of



Dr.A.Ajayaghosh

At

CHEMICAL SCIENCES AND TECHNOLOGY DIVISION, CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY, THIRUVANANTHAPURAM-695019

JUNE 2020



Athested &

PRINCIPAL 86VT, COLLEGE FOR WOMPR THERUVANANTHAPHRAM-18

### National Institute for Interdisciplinary Science and Technology (NHST)



(Formerly Regional Rewarch Laboratory)

Council of Scientific & Industrial Research Industrial Estate P.O., Trivandrum - 695 019 Kerala, INDIA



Tel: 91-471-2490324 Fax: +91-471-2491 712

Dr. A. Ajayaghosh ., FASc., FNASc., FNA., FTWAS Director

Email:ajayaghosh62@gmail.com ajayaghoshamiist.res.in

July 14,2020

#### CERTIFICATE

This is to certify that the project report entitled "Modulating lower critical solution temperature of supramolecular polymer by adding water soluble dyes"submitted by Athira Gopan for the partial fulfillment of the degree of master of science (M.Sc.) in chemistry of Govt.college for women, Vazhuthacaud, Thiruvananthapuram is a bona-fide work carried out by her under my guidance in the photosciences and photonics section, NIIST, Trivandrum. This report in my opinion is worthy of consideration for the award of certificate.

Dr. A. Ajayaghosh

Photosciences and Photonics section CSIR-NIIST, Trivandrumen es en

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# SYTHESIS OF VARIOUS N-SUBSTITUTED ISATINS

In partial fulfilment for the award of the degree of

Master of Science in Chemistry

By

Deepanjana Mohan

Register Number: 63518107003

Govt. College For Women

Vazhuthacaud, Thiruvananthapuram



Under the guidance of

Dr. Sasidhar B. S.

Senior Scientist

CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST)

Thiruvananthapuram, Kerala-695019



April 2020

f

PRINCIPAL 4.
GOVT. COLLEGE FOR WOMEN
THIRUVANANTHAPURAM-14:



## CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY (NIIST)

Council of Scientific & Industrial Research (CSIR), Govt. of India

Dr. Sasidhar B. S. Senior Scientist, Organic Chemistry Section Chemical Sciences and Technology Division

E mail: drsasidharbs@gmail.com drsasidharbs@niist.res.in Telephone: 09497260897(Mob) 0471 2515416 (Off); Fax: +91 2491712

### CERTIFICATE

This is to certify that the project report entitled "Synthesis of various N-substituted isatins" submitted by Deepanjana Mohan for the partial fulfillment of the degree of master of science (M.Sc.) in chemistry of Govt.college for women, Vazhuthacaud Thiruvananthapuram is a bona fide work carried out by her under my guidance at the Chemical Sciences and Technology Division, CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum. This report in my opinion is worthy of consideration for the award of certificate.

Dr. Sasidhar B. S.

PRINCIPAL GOVT, COLLEGE FOR WOLCER THRIWAGER HAPURLES 14



# STUDY ON EFFECT OF SULPHURICACID IN THE LEACHING PROCESS DURING THE MANUFACTURE OF TITANIUM DIOXIDE

Dissertation submitted in partial fulfilment of the requirements for the award of degree of

#### MASTER OF SCIENCE

IN

CHEMISTRY

BY

DHANYA KRISHNAN U R

Register No: 63518107004



DEPARTMENT OF CHEMISTRY GOVT.COLLEGE FOR WOMEN, THIRUVANANTHAPURAM KERALA, INDIA JULY 2020

PRINCIPAL
MONTO CHILAGO CONTROLO
GRANTANA MANAGEMANA ANTA





## TRAVANCORE TITANIUM PRODUCTS LIMITED

(A Government of Kerala Undertaking)
THIRUVANANTHAPURAM

27th July 2020

### CERTIFICATE

This is to certify that Ms. Dhanya Krishnan U R. Msc Chemistry Student of Govt. College for Women, Thiruvananthapuram, has carried out her Project work on "STUDY ON EFFEECT OF SULPHURICACID IN THE LEACHING PROCESS DURING THE MANUFACTURE OF TITANIUM DIOXIDE" in Travancore Titanium Products Limited with effect from 13th January 2020 to 24th January 2020.



Manager ( A. A)



REGD. OFFICE: KOCHUVELI, THIRUVANANTHAPURAM - 695 021, KERALA, INDIA Phone: 0471-2502748, 2508621,2500221 Fax: 0471 - 2502724, 2501533, 2501127 CIN: U13209KL1946SGC001214, GST No: 32AAACT8543J1Z9 E-mail: mkting@travancoretitanium.com, md@ttpitd.in, purchase@ttpitd.in

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## DFT STUDY ON THE INTERACTION OF CO2 WITH LONE PAIR BEARING MOLECULES

A Project Report Submitted for the Partial Fulfillment
of the Requirements for the Degree of
MASTER OF SCIENCE

In

CHEMISTRY
By
FASNI S
Register No: 63518107005



DEPARTMENT OF CHEMISTRY GOVT. COLLEGE FOR WOMEN, THIRUVANANTHAPURAM

Under the Supervision of

Dr. C H SURESH



CHEMICAL SCIENCES AND TECHNOLOGY DIVISION

CSIR<sup>1</sup>NATIONAL INSTITUTE FOR INTERDISCIPLINARY

SCIENCE AND TECHNOLOGY,

THIRUVANANTHAPURAM-695019

**JUNE 2020** 



PRINCIPAL
GOVT. COLLEGE FOR WOMEN
CHARUVANANTHAPURAM-14



#### COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH

NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY (CSIR - NIIST),

GOVT. OF INDIA

CHEMICAL SCIENCES AND TECHNOLOGY DIVISION (CSTD)
Industrial Estate P.O. Thiruvananthapuram, KERALA, INDIA, 695019

#### CERTIFICATE

This is to certify that Ms. FASNI S, Master of Science in Department of Chemistry, Govt. College for Women, Thiruvananthapuram, worked on the topic, entitled as "DFT STUDY ON THE INTERACTION OF GO<sub>2</sub> WITH LONE PAIR BEARING MOLECULES" under my supervision in Chemical Sciences and Technology Division, CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, in a partial fulfillment of the requirements for the Degree of Master of Science in Chemistry, University of Kerala, Thiruvananthapuram. The present work or any part of there has not been submitted elsewhere for a degree.

Dr. C H SURESH

Senior Principal Scientist

CSIR-NIIST, Thiruvananthapuram

PRINCIPAL GOVT. COLLEGE FOR WOMEN THRUVANANTHAPURAM-14

# Copper Modified Polycarbosilane: A Preliminary Study on Its Structure and Catalysis

A PROJECT REPORT

Submitted by

Lavanya B. Sajeev

Register No: 63518107006

To

University of Kerala

In partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

GOVERNMENT COLLEGE FOR WOMEN, VAZHUTHACADU
THIRUVANANTHAPURAM

KERALA, INDIA

PRINCIPAL COVT. COLLEGE FOR WOMEN THANKS ANANTHAPURAM-14.

JULY 2020

भारत शरकात जातिक विभाग विक्रम साराभाई अंतरिक्ष केन्द्र

901 (0471) 2563843 from 10471) 2564096



Government of India Department of Space

Vikram Sarabhai Space Centre Thirucassanthapuram-695 022

Kerala, INDIA

Telephone: (9471) 2563843

Fax: (0471) 2564096

Propellants, Polymers, Chemicals & Materials Entity

Analytical, Spectroscopy and Ceramics Group

Ceramic Matrix Products Division

#### CERTIFICATE

July 27, 2020

This is to certify that the work embodied in the project report titled "Copper Modified Polycarbosilane: A preliminary study on its structure and catalysis" has been carried out by Kum. Lavanya B. Sajeev under our supervision and guidance during the period January 2020 - March 2020. The present work or any part of the report has not been submitted to any other university or institution for the award of any degree or diploma.

Dr. Vipin Vijay V.

Scientist SD

Ceramic Matrix Composites Section

(Co-guide)

Dr. Sreeith K

Scientist SE

Ceramic Matrix Composites Section

(Guide)

Dr. Renjith Devasia Scientist SG & Division Head Ceramic Matrix Products Division

> PRINCIPAL GOVT. COLLEGE FOR WOMEN THERIVANANTHAPURAM-14:

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## DEVELOPMENT OF POLYIMIDE FOAM FROM DIANHYDRIDE AND ISOCYANATE

Dissertation Submitted to the University of Kerala In the partial fulfillment of the Degree of

Master of Science in Chemistry

BY

Lekshmi.A Reg.No: 63518107007



## DEPARTMENT OF CHEMISTRY GOVT. COLLEGE FOR WOMEN, THIRUVANANTHAPURAM

Under the Supervision of

Smt. Ani K John, SCIENTIST SE

&

Shri. Satish Mahto, SCIENTIST SC

PROJECT ENGINEERING AND PRODUCTIONIZATION FACILITY (PEPF) DIVISION VIKRAM S'ARABHAI SPACE CENTRE THIRUVANANTHAPURAM

इसमें डिक्ट

**JULY 2020** 

PRINCIPAL GOVT, COLLEGE FOR WOMEN THRUVANANTHAPURAM-14.

2020

भारत सरकार अंतरिक्षविभाग

विक्रम साराभाई अंतरिक्षकेन्द्र

तिरुवनन्तपुरम-695 022 केरल, भारत

फोन : (0471) 2563658 फेक्स: (0471) 2563013



Government of India Department of Space

Vikram Sarabhai Space Centre

Thiruvananthapuram-695 022 Kerala, INDIA

Telephone : (0471) 2563658 Fax : (0471) 2563013

### CERTIFICATE

This is to certify that the project report titled **DEVELOPMENT OF POLYIMIDE FOAM** 

FROM DIANHYDRIDE AND ISOCYANATE submitted by Ms. Lekshmi A, final year MSc. Chemistry student of Govt. College for Women, Thiruvananthapuram, in partial fulfilment of the requirement for award of Degree of Master of Science in Chemistry of University of Kerala, is bonafide record of the work carried out by them at PEPF/CSG, Vikram Sarabhai Space Centre, Trivandrum under our guidance.

Project Guide

Co-Guide

**Division Head** 

R. S. ..

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Sabeh malik

(Ani K John) Scientist/Engineer-SE, PEPF/CSG/PCM (Satish Mahto) Scientist/Engineer-SC PEPF/CSG/PCM (N Saravanan) Manager, PEPF PEPF/CSG/PCM

-/-SHIT ISPO

भारतीय अंतरिक्ष अनुसंघान संगठन

Indian Space Research Organization

## STUDIES ON EFFECT OF CATALYST ON THE KINETICS OF

## POLYOL-ISOCYANATE REACTION

A project report submitted for the Partial Fulfillment of the Requirements for the Degree of

## MASTER OF SCIENCE in CHEMISTRY

By

MALAVIKA K. G.

Candidate code: 635 18 107 008



DEPARTMENT OF CHEMISTRY GOVT. COLLEGE FOR WOMEN, THIRUVANATHAPURAM

Under the guidance of

Dr. Suresh Kumar A.

Scientist/Engineer-SE

Application Development Division

इसरो डिल्व

Vikram Sarabhai Space Centre

Thiruvananthapuram

AUGUST 2020



## Vikram Sarabhai Space Centre Thiruvananthapuram

### CERTIFICATE

This is to certify that Ms. MALAVIKA K. G., Master of Science in Chemistry, Govt. College for Women, Thiruvananthapuram, worked on the topic, entitled as "STUDIES ON EFFECT OF CATALYST ON THE KINETICS OF POLYOL-ISOCYANATE REACTION" under our supervision and guidance at Vikram Sarabhai Space Centre, Thiruvananthapuram, in partial fulfillment of the requirements for the Degree of Master of Science in Chemistry, University of Kerala, Thiruvananthapuram. This work has not been submitted elsewhere for any degree.

and

Project Guide

Dr. SURESH KUMAR A.

Scientist Engineer-SE

Application Development Division

Division Head
NALLAPERUMAL A. M.
Scientist/Engineer-SG
Application Development Division

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PRINCIPAL SOUT, COLLEGE FOR LEDMEN FRENCH CONTRACTOR WALLEST HE

## Phenothiazine Based Organic D-D-π-A Dyes for Dye-Sensitized Solar Cells

In partial fulfillment for the award of the degree of

Master of Science in Chemistry

By

Meenakshy C.B

Register Number: 63518107009

Govt. College For Women, Vazhuthacaud, Thiruvananthapuram



Under the guidance of

Dr. Suraj Soman Scientist

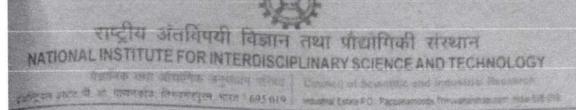
CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST)

Thiruvananthapuram, Kerala-695019



April 2020

PRINCIPAL
GOVT. COLLEGE FOR WOMEN
THISUVANANTHAPURANI-14



#### CERTIFICATE

This is to certify that the project entitled "Phenothiazine-Based Metal-free D-D-π-A Dyes for Dye-Sensitized Solar Cells" is a bonafide report of the work carried out by Mn. Meenakshy C.B at the Photosciences and Photonics Section, Chemical Sciences and Technology Division (CSTD), CSIR-NIIST, Thiruvananthapuram under my supervision during the period of 13th January 2020 to 16th March 2020 for the partial fulfillment of the degree of Master of Science in Chemistry (Pure Chemistry) from Govt. College For Women, Vazhuthacaud, University of Kerala, Thiruvananthapuram, Kerala.

Place: Thiruvananthapuram

Date: 26-06-2020

#### SUPERVISOR

Dr. Suraj Soman Scientist and Assistant Professor

Scientist and Assistant Professor, AcSIR
Photosciences & Photonics Section
Chemical Sciences & Technology Division (CSTD)
CSIR-National Institute for Interdisciplinary
Science & Technology (NHST)
Thiruvananthapuram, Kerala, India

हाँ शरज शोमन/Or SURAL SOMAN



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Tel 914712490674 Fax 914712491895 2491712, 2490389 (D) 25152392567884 E-mail

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PRINCIPAL GOVT, COLLEGE FOR WOMEN THROVANANTE APPRIMITA

## Studies on Dopamine and Glycidyl Methacrylate Modified Epoxy Adhesive for Metals

By

MEEVAL STISHI GEORGE (Registration. No. 63518107010)

A Dissertation Submitted
Submitted to UNIVERSITY OF KERALA

In Partial fulfilment of the requirements For the award of the degree

Of
MASTER OF SCIENCE IN
CHEMISTRY



DEPARTMENT OF CHEMISTRY

GOVT. COLLEGE FOR WOMEN, VAZHUTHACAUD UNIVERSITY OF KERALA THIRUVANANTHAPURAM

JULY-2020

PRINCIPAL GOVT. COLLEGE FOR WOMER THREVANANTHAPURAM-14 भात सस्बर जनारेस विभाग विक्रम साराभाई जन्तरिक केन्द्र विकासमानुष्य - 645 022 भारत



Government of India Department of Space Vikram Sarabhai Space Centre Thiruvananthapuram-695022, India

## Certificate

This is to certify that the project report entitled 'Studies on Dopamine and Glycidyl Methacrylate Modified Epoxy Adhesive for Metals' is an authentic record of project work done by Ms. MEEVAL STISHI GEORGE from Department of Chemistry, Govt. College for Women, Vazhuthacaud, Thiruvananthapuram, Kerala, under the supervision and guidance of Shri. Ranajit Pal, Sci/Engr. SE, and Smt. Monisha Baby, Sr. Sci. Asst. A of Polymers and Special Chemicals Division, Vikram Sarabhai Space Centre, Thiruvananthapuram, Kerala, during the period from January 2020 to March 2020 for the award of M.Sc. Degree in Chemistry.

RANAJITPAL

PRINCIPAL COVT. COLLEGE FOR WOMEN THREWARANTHAPPERAMINA

## New Pyridinium Fluorophore for Multichannel pH

19:01-121-5100351

Tel: 91-471-2490324 Fax: +91-471-2491712

Dr. A. Ajayaghosh ., FASc., FNASc., FNA., FTWAS Director Email:ajayaghösh62@gmail.com ajayaghosh@niist.res.in

July 14,2020

#### CERTIFICATE

This is to certify that the project report entitled "A New Pyridinium Fluorophore for Multichannel pH Sensing of Endoplasmic Reticulum in Live Cells" submitted by Sreelekshmi S. R. for the partial fulfillment of the degree of master of science (M.Sc.) in chemistry of Govt.college for women, Vazhuthacaud, Thiruvananthapuram is a bona-fide work carried out by her under my guidance in the photosciences and photonics section, NIIST, Trivandrum. This report in my opinion is worthy of consideration for the award of certificate.

Dr. A. Ajayaghenosh, rase, mase, mas

िरोशांग / Director वे तर वर्ष वर गईव अविन्ते विकास वर्षाति संस्टा टडेस-National Institute for Interestings Science and Technology

Photosciences and Photonics section CSIR-NIIST, Trivandrum

> PRINCIPAL GOVT, COLLEGE FOR WOMEN THERUVANANTHAPURAM-14

## PREPARATION OF RUTILE TITANIUM DIOXIDE BY USING TITANIUM OXYCHLORIDE AS NUCLEATING AGENT

Dissertation Submitted

in partial fulfillment of the requirements for the

award of the degree of

MASTER OF SCIENCE

IN

CHEMISTRY

By

VISHNUPRIYA U

Register No

: 63518107012

Exam Code

: 63516403

Subject Code

: CH243(a)



DEPARTMENT OF CHEMISTRY GOVT. COLLEGE FOR WOMEN THIRUVANANTHAPURAM-695015 KERALA, INDIA

Under the Supervision of Dr. J.Pushparajan Deputy Manager (R&D) Travancore Titanium Products Limited Kochuveli, Thiruvananthapuram. JULY 2020

> PRINCIPAL 60VT, COLLEGE FOR WOMEN THEROVANANTHAPURANIA



## TRAVANCORE TITANIUM PRODUCTS LIMITED

(A Government of Kerala Undertaking) THIRUVANANTHAPURAM

27th July 2020

### CERTIFICATE

This is to certify that Ms. Vishnupriya. U, Msc Chemistry Student of Govt. College for Women, Thiruvananthapuram, has carried out her Project work on "RUTILE TITANIUM DIOXIED PREPARATION BY USING TITANIUM OXYCHLORIDE AS NUCLEATING AGENT in Travancore Titanium Products Limited with effect from 13th January 2020 to 24th January 2020.





REGD. OFFICE: KOCHUVELI, THIRUVANANTHAPURAM - 695 021, KERALA, INDIA Phone: 0471-2502748, 2508621,2500221 Fax: 0471 - 2502724, 2501533, 2501127 CIN: U13209KL1946SGC001214, GST No: 32AAACT8543J1Z9

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Hindi, Govt. College for Women, Thiruvananthapuram in Collaboration with Kerala State Higher Education Council, Govt. Of Kerala

#### Link of online classes

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- 16. https://youtu.be/hpX7NCdSPsE
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- 41. https://youtu.be/zbIqWoOZxYI
- 42. www.kshec.kerala.gov.in
- 43. http://www.collegiateedu.kerala.gov.in/
- 44. https://youtube.be/qlE9krAtglM SDE Patsala university of kerala

#### Dr. SHABANA HABEEB

Asst. Prof. of Hindi

Govt. College for Women,

Thiruvananthapuram

#### Webinar link

- 1. https://m.facebook.com/groups/683518505541886?view=permalink&id=69169526139 0877
- 2. https://youtu.be/A5Iro37emykh

PRINCIPAL GOVT, COLLEGE FOR WOMEN HIRUVANANTHAPURAM-14

#### DUTY CERTIFICATE

This is to certify that Smt. Maya Menon, Assistant Professor of Psychology, Govt, College for Women, Trivandrum was on duty in connection with the presentation of Guidelines of Walk With a Scholar (WWS) Programme organized by the Office of The New Initiatives in Higher Education, Directorate of Collegiate Education, Government of Kerala on 21.08.2019 at Loyola College, Sreekaryam, Thiruvananthapuram & 22.08.2019 at Govt. College for Women, Vazhuthacaud, Trivandrum.

22:08:2019

Director to charge

of herm

COVT. COLLEGE FOR WOMPN THRHVANADATHAPHRAMAA



## New Initiatives in Higher Education

Directorate of Collegiate Education
Department of Higher Education
Government of Kerala

#### **DUTY CERTIFICATE**

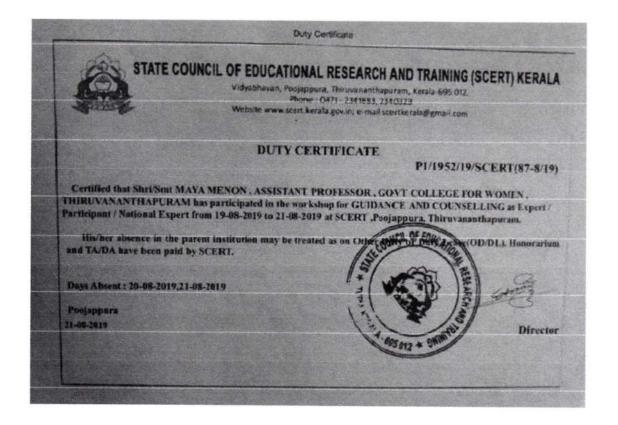
Certified that Smt. Maya Menon , Assistant Professor of Govt. Women's College Trivandrum was on duty in association with the Technical session of Master Mentor Training Programme of Walk with a scholar (WWS) 2019-20, organized by the New Initiatives in Higher Education, Directorate of Collegiate Education, Govt. of Kerala at Government College for Women, Vazhuthacaud, Thiruvananthapuram on 29/08/2019 & 30/08/2019.

30 August 2019

Director in Charge

**Directorate of Collegiate Education** 

PRINCIPAL GOVT. COLLEGE FOR WOMEN TRUVANANTHAPURAM-14



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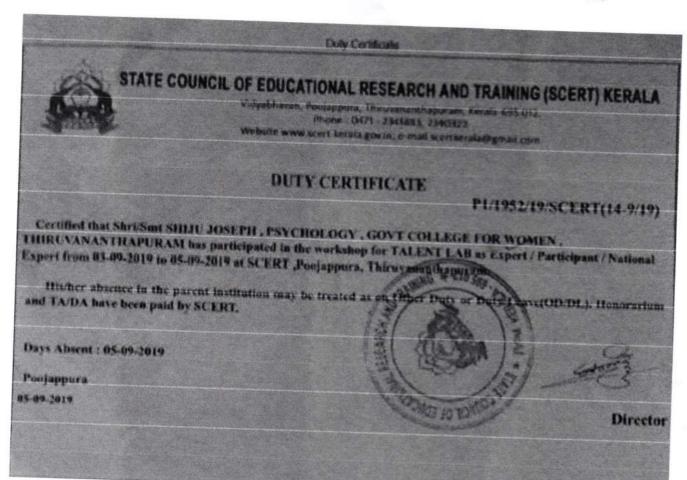
COVT. COLLEGE FOR WOMEN



DUTY CERTIFICATE	
This is certify that S	ris Smt. Maya Menco.
<del> </del>	has attended the adolescen
education module modifica	tion workshop from 14/11/2019 to 15/11/2019 a
O'of the DGE, Thiruvananthar	puram. His/Her absence in the parent office may be
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	For Director of General Education

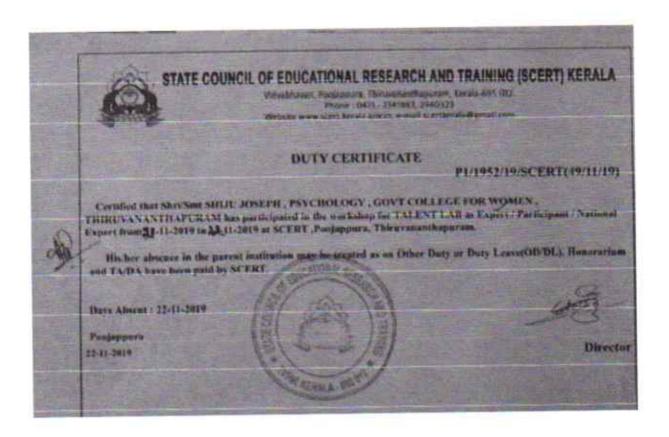
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GOVT. COLLEGE FOR WOMEN
THRUVANANTHAPURAM.14

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PRINCIPAL COVT. COLLEGE FOR WOMEN THOUWANANTHAPHRAM-14



PRINCIPAL GOVT. COLLEGE FOR WOMEN

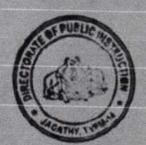


## **DUTY CERTIFICATE**

O/of the DGE, Thiruvananthapuram. His/ Her absence in the parent office may be treated as other Duty (O.D)

Jagathy

15/11/2019



For Director of General Education

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GOVT, COLLEGE FOR WOMEN:





English translation of the brochure presented in regional language

Dept. of Malayalam Govt. College for Women Thiruvananthapuram Organizing

#### Seven Days Film Workshop and National Seminar

2019 October 28 to November 3

## Film Art Expression and Art of Enjoyment

Inauguration Shri. Adoor Gopalakrishnan Monday 28 October 11 am Assembly Hall- Govt. College for Women Thiruvananthapuram

Financial aid

Directorate of Collegiate Education and Kerala State Film Academy

Technical Support

C-DI

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English translation of the brochure presented in regional language

O. V Vijayan Memorial Committee, Palghat

## Khasakkinte Ithihasam 50th Year

One Day Seminar on 2019 November 5

at

Assembly Hall, Govt. College for Women, Thiruvananthapuram

PRINCIPAL
GOVT. COLLEGE FOR WOMEN
"BHVANANTHAPURAM-14





H.O.Hantex/O.N-380/2018

01.10.2019

#### To Whomsoever it may concern

This is to certify that Ms. Anaswara J R (Reg.No. 59018107005) who is doing M.Com in Government College for Women, Thiruvananthapuram has done an Internship at Hantex. She has successfully completed the "Internship Programme at HANTEX" from 16.09.2019 to 01.10.2019 and submitted the report.



Finance Manager, Hantex.

PRINCIPAL
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THRUVANANTHAPURAM-14



# Kerala Tourism Development Corporation Limited

(A Gov) of Kerala Undertaking)
P.B. No. 5424, Mission Square, Vokas Bhavan P.O.
Thirovananthapuram - 645.0.1 Kerala, India
Phone - 791-471-771243-45:48, Fax. 2721249
E-Mail: infosektionom, Website: www.khd..com.

26.08.2020

## CERTIFICATE

This is to certify that Smt.Bhagyashree Pillai, doing M.Com in Govt. College for Women has successfully completed her Internship in the Accounts Section of the Corporate Office, Mascot Square, Thiruvananthapuram, from 10.09.2019 to 12.03.2020 in part fulfillment of the course.

During the period of training her character, conduct and performance were found Good.

PERSONNEL OFFICER

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PRINCIPAL BOYT, COLLEGE FOR WOMPS THRUVANANTHAPURAMIA



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## Thiruvananthapuram Service Co-operative Bank Ltd.No.T.131 Head office: Press Road, Thiruvananthapuram - 695 001

Phone: 2330950, 2334463 Email: tscbt131@gmail.com

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Phones 3143834

2363011 2596158 2341012 2339901

Neeth Medical Store Fort Ph. 2466561

Dated 05-10-2019

#### CERTIFICATE

This is to certify that Mrs. Athira.S. M.com student from Govt.College for women, Tym has done Internship in Thiruvananthapuram Service Co-Operative Bank, Valivavila branch from 16-09-2019 to 01-10-2019. She has completed the Internship satisfactorily. During her association with us she was very keen and enthusiastic in her work.



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For Thiruvenenth

PRINCIPAL GOVT, COLLEGE FOR WOMER CHERITVANANTHAPHRAM.14



#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Divyalah. S.S., M.Com andem of the University of Keralawomen, Vazhuthaeaud, Thiruvanathapuram, affiliated to the University of Keralacandidate code No. 59018107014 has successfully completed the Summer Internship Training at Centre for Management Development, Thyeaud, Thiruvananthapuram for 12 days from 16/09/2019 to 01/10/2019, under my guidance and supervision. She studied the general activities of the organization. During the period of her Internship Programme with us, her conduct and character were good.

Thiruvananthapuram 3<sup>rd</sup> August, 2020 DIRECTOR

PRINCIPAL

PRINCIPAL, COVT. COLLEGE FOR WOMEN TERREVANANTHAPURAM-14

Ered Inch Thiruvananthapuram Service Co-operative Bank Ltd.No.T.131 Head office: Press Road, Thiruvanantheputam - 695 001 10.000

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Simply Medical Store, Port Ph., 2186551

Dated 05-10-2019

### CERTIFICATE

This is to certify that Ms. Chinchu.G. M.com student from Govt.College for women, Tym has done Internship in Thiruvananthapuram Service Co-Operative Bank, Valiyavila branch from 16-09-2019 to 01-10-2019. She has completed the Internship satisfactorily. During her association with us she was very keen and enthusiastic in her work.

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For Thinyvananthapuram Service Co-operative Bank Ltd. No. J. 131

PRINCIPAL **GOVT. COLLEGE FOR WOMEN** TIMRUVANANTHAPURAM-14





## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Mamatha V G, M.Com student of Govi College for Women, Vazinathacaud, Thiravamanthaparam, affiliated to University of Kerala - candidate code No. 5901810/016 has successfully completed the Summer Internship Training at Centre for Management Development, Thycaud, Thiravananthaparm for 12 days from 16/09/2019 to 01/10/2019, under my guidance and supervision. She studied the general activities of the organization. During the period of her Internship Programme with us, her conduct and character were good.

Thiruvananthapuram 3<sup>rd</sup> August, 2020 DIRECTOR

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WAT COLLEGE STRANGES





F.J. M. Hantes O.N. 180/2019

01.10.2019

#### To Whomsoever it may concern

This is to certify that Ms. Unnimaya S (Reg.No. 59018107021) who is desirg M Com in Government College for Women, Thiruvananthapuram has done an Internship at Hantex. She has successfully completed the "Internship Programme at HANTEX" from 16.09 2019 to 01.10.2019 and supposted the report



Rinance Manager, Hantex.

Francisco de Contra de Con

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PRINCIPAL 60VT. COLLEGE FOR WOMER THIRIVANIANTHAPURAM-14



F2/H.O.Hantex/O.N-380/2018

01.10.2019

## To Whomsoever it may concern

This is to certify that Ms. Sonu Reji (Reg.No. 59018107020) who is doing M.Com in Government College for Women, Thiruvananthapuram has done an Internship at Hantex. She has successfully completed the "Internship Programme at HANTEX" from 16.09.2019 to 01.10.2019 and submitted the report.

Finance Manager, Hantex.



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Thumba Thinwarianthaburan Thumba Thinwarianthaburan CN USSIGNIU017PTC048979 info@indograde.com 9744719000

Dated 5/10/2019

#### CERTIFICATE

This is to certify that Mrs. Amina. S. M. com student from Govt college for women. Tem has done Internship in Indrograms Ecommerce Pet Lad from 16-9-2019 to 1-10-2019. She has completed the Internship satisfactorily. During her association with us she was very keen and epitusiastic in her work.

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PRINCIPAL 60VT. COLLEGE FOR WOMEN THIRDVANANT MAINTENANT MAIN



F2/H.O.Hantex/O.N-380/2018

01.10.2019

### To Whomsoever it may concern

This is to certify that Ms. Athira Anilkumar (Reg.No. 59018107010) who is doing M.Com in Government College for Women, Thiruvananthapuram has done an Internship at Hantex. She has successfully completed the "Internship Programme at HANTEX" from 16.09.2019 to 01.10.2019 and submitted the report.

Finance Manager, Hantex.



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5 No. E. Student Internship

## Kerala State Handloom Weavers' Co-operative Society Ltd. H.232

F2/H.O.Hantex/O.N-380/2618

01.10.2019

## To Whomsoever it may concern

This is to certify that Ms. Abhirami.S.P (Reg.No. 59018107002) who is doing M.Com in Government College for Women. Thiruvananthapuram has done an Internship at Hantex. She has successfully completed the "Internship Programme at HANTEX" from 16.09.2019 to 01.10.2019 and submitted the report.

Finance Manager,



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PRINCIPAL COVT. COLLEGE FOR WOMEN THIRDVANANTHAPURAM-14:



Kerala Tourism Development Corporation Limited

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25 08 2020

#### CERTIFICATE

This is to certify that Smt.Archa G. P., doing M.Com in Govt. College for Women has successfully completed her Internship in the Accounts Section of the Corporate Office, Mascot Square, Thiruvananthapuram, from 16.09.2019 to 12.03.2020 in part fulfillment of the course.

During the period of training her character, conduct and performance were found Good.

PERSONNEL OFFICER

五年 4

PRINCIPAL COVT. COLLEGE FOR WOMEN THRUVANANTHAPURAM-14

## PANGODE SERVICE CO-OPERATIVE BANK LTD, NO.: T 212

Pangode (P.O.), Thuruvarianthapuriam, 695 609

Ph. 0472-2860260 F mail of pach212/example com Branch Bharathannoor

President N Babu

Secretary S. Prasad

## CERTIFICATE

This is to certify that Smt. ANOOJA G. M.Com. student of Govi. Women's College. Variously Variously Thirty membrane, affiliated to University of Kerala candidate code no 59018107006 has successfully completed the Summer Internship Training at Pangode Service Co-Operative Bank for 12 days from 16:09:2019 to 03:10:2019, under my guidance and supervision. She studied the general activities of the bank during the period of her Internship programme with us, she was punctual, hard working and obedient.

Place Pangode

Date: 03 10 2019

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Henrex Kerala State Handloom Weavers' Co-operative Society Ltd. H.232

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#### To Whomsoever it may concern

This is to sectify that Ma. SIVASREE A S (Reg. No. 59018107019) who is deare M Core in Contribute College to Women. Third varianthapuram has done an internatop at Hantes. She has accessfully completed the "Internship Programme at HANTEX" from 17 09 2019 to 01 10 2019 and enhanted the report.

> Finance Manager, Hantex.



PRINCIPAL GOVT. COLLEGE FOR WOMEN THRUVANANTHAPHRAM.14

## TRIVANDRUM DIVISIONAL OFFICE OF SOUTHERN RAILWAY

Housing board, Thyraud, Thiruvananthapuram, Kerala 695014
(GOVERNMENT OF INDIA)



#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that RESMI RAI S, student of Master of Commerce in Government College for Women varhuthacaud Thiruvananthapuram, has successfully completed 12 days of internship (from 15<sup>th</sup> September 2019 to 30<sup>th</sup> September 2019) in the Finance Department of this organisation. During the period of her internship programme with us, she was punctual, hardworking and inquisitive.

We wish all success in her future endeavours.

Dileep Kumar

PROFITS STORE OF THE PROFITS OF THE

Assistant Divisional Finance Manager (ADFM)

Trivandrum Divisional Office of Southern Railway

Thycaud, Thiruvananthapuram.

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PRINCIPAL OUT. COLLEGE FOR WOMPO

# TRIVANDRUM DIVISIONAL OFFICE OF SOUTHERN RAILWAY

Housing board, Thycaud, Thiravananthapuram, Kerala- 695014 (GOVERNMENT OF INDIA)



## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Aathira, G. Nair, student of Master of Commerce in Government College for Women vazhuthacaud Thiruvananthapuram, has successfully completed 12 days of internship (from 16th September 2019 to 30th September 2019) in the Finance Department of this organisation. During the period of her internship programme with us, she was punctual, hardworking and inquisitive.

We wish all success in her future endeavours.

the pay southern survey WEST THRILAMANANTHAPURAM-195814

Dileep Kumar

ssistant Divisional Finance Manager (ADFM) rivandrum Divisional Office of Southern Railway hycaud, Thiruvananthapuram.

GOVT, COLLEGE FOR WOMEN THRUVANANTHAPURAM-IA

## 2018-2019

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PRINCIPAL GOVT. COLLEGE FOR WOMEN THRUVANANTHAPURAM-14



## ESIS OF BIPYRIDINE - VIOLOGEN LIGANDS AND METAL COMPLEXES FOR ELECTROCHROMIC APPLICATIONS

A project report submitted to

University of Kerala

In partial fulfillment for the award of the degree of

Master of Science in CHEMISTRY

By

### SRUTHI KRISHNA S.

Reg No: 635 17107013

DEPARTMENT OF CHEMISTRY GOVT, COLLEGE FOR WOMEN THIRUVANANTHAPURAM



Under the supervision of

Dr. SREEJITH SHANKAR



Photosciences and Photonics Section

Chemical Sciences and Technology Division

CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST)

Thiruvananthapuram 695019

राष्ट्रीय अंतर्विषयी विज्ञान तथा प्रौद्योगिकी संस्थान वैज्ञानिक तथा औद्योगिक अनुसंधान चरिषद् रवित्रक रहेर दे औ सामानकोई क्रिक्स्प्रीम भार - १०० ०१३

IATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY (CSIR - NIIST) Council of Scientific and Industrial Research Industrial Estate P O. Pappanamcode, Thirdvananthapuram, India – 695 019

डॉ. ब्रीजित शंकर पी., पी एवं डी रामानुबन केलो ६ अमहीक्टेन्ट प्रोकेसर, ए सी एस



Dr. Sreejith Shankar P., PhD Ramanujan Fellow & Assistant Professor, AcSIR

#### CERTIFICATE

This is to certify that the results presented in the thesis entitled "Dynthesis of Bipyridine -Viologen Ligands and Metal Complexes for Electrochromic Applications' was carried out by Ms. Sruthi Krishna 3. (Reg No: 635 17107013), Department of Chemistry, Government College for Women, Thiruvananthapuram, under my supervision at the Chemical Sciences and Technology Division, CSIR-NIIST, Thiruvananthapuram. The present work has not been submitted to any other university or institution for the award of any degree or diploma.

> Dr. Sreeith Shankar Project Supervisor

Affected

COVE COLLEGE FOR WOMEN, TERUVARIANTHAPHRAM.14



## GOVERNMENT ARTS AND SCIENCE COLLEGE NADAPURAM

VANIMEL P.O KOZHIKOD-673506. Website: www.governmentcollegenadapuram ac in

CH IGA NUMBER

DEPARTMENT OF PSYCHOLOGY

DUTY CERTIFICATE

Centry that Mr/Mrs /Ms/Dr. SHIJU JOSEPH attended as a

Source person / participant on 10-1 2019, 11-1-2019 in the Two Day National Sendous 'Dynamics of Indian Society: A Psychological Exploration' at the college sponsored by

Collegiate Education, Govt. of Kerala and organised by Department of Psychology.

ment Arts and Science College, Nadapuram on 10th &11th January 2019.

Principal

Madapuram 14. 4. 2019

PRINCIPAL GOVT. COLLEGE FOR WOMEN THRUVANANTHAPURAM-14



## GOVT.COLLEGE FOR WOMEN

(Re-Accredited with 'A' Grade by NAAC)

THIRUVANANTHAPURAM

Tet: 0471-2324986 (Off) Fax: 0471-2333496

No A2/4129/2018 GCW

Dated: 06/02/2019

## JOINING REPORT

Ref. 1. Letter No. A3/3511/2018/UC. dated, 30/01/2019 from the Principal, Govt. University College, Thiruvananthapuram.

2. Request dated: 02/02/2019 from Sukanya, J.K.

As per the reference cited above, Sukanya. J.K., M. Phil Student, Department of Philosophy, University College, Palayam, Thiruvananthapuram juined the Govt. College for Women with effect from the FN of 02/02/2019 for

doing meruship of Aspire Scholarship.



COVE, COLLEGE FOR WOMEN CHERHVANIANT GAPHRAM AA

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PROJECT COMPLETION CERTIFICATE

(FOR ASPIRE SCHOLARSHIP - 2018-19)

This is to certify that Shirkum SUKANYAJ K. MPHIL. student of UNIVERSITY COLLEGE

THIRUVANAVIANAMENTAREM . affiliated to . University of Kerala, Palayam has successfully completed his/her

Aspire Scholarship Project/Internahip entitled. "Nature of Consciouaness: An Inquiry Into The Subjective Idealism of

Yegacara School of Buddhism", within the stipulated month(s) from .02/02/2019, to .02/04/2019 under the guidance of

Prof/Dr.L Vita: of Government College for Women, Thiruvananthapuram...affiliated to our(University of Kerala,

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MASIURAHTMANAVISHI

Pr.MARIIGANTHANAVURMT GOVT, COLLEGE FOR WOMER



Martial Health Cantre
Percorkada P G.
Thirus an anthopyram
PNA: 595 005
Phone: 0471 - 2433805, 2432688
Fax: 0471 - 2433800, 2435630
-e-mail: mhctypm@gmail.com

Mental Health Centre, Thin war anthapuram. No.Acd-3143/2015/MHC/TVPM

02..07..2019

## CERTIFICATE

Government College for Women, Vazhuthacaud, Thiruvananthapuram has attended internship in this hospital from 1<sup>st</sup> May 2019 to 30<sup>th</sup> May 2019(30 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.



Dr. SAGAR T.
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Montal Health Co.
Percorkada
Percorkada
Thiruvanantha

NOORUL ISLAM INSTITUTE OF MEDICAL SCIENCE (NIMS) & RESEARCH FOUNDATION



The Last Word in Patient Care NIMS MEDICITY, Aralummoodu, Neyyattinkara, Thiruvananthapuram - 695 123

E-mail: nimemodicity@niusiv.com AUNIT OF N.L EDUCATIONAL TRUST

25/05/2019

8. / Madam Ms Lekskmi. S. humar. should of BSC Psychology 4/K sem has succensfully completed her I month internship programmes from the Dept. of Psychology & Psychietray under my superission and and and of the seminary of t and gurdance.





Phone: 0484 2523466

Email: bethsadahospital@gmail.com Web: www.bethsadahospital.com

VENGOLA, PERUMBAVOOR, ERNAKULAM DIST, KERALA, PIN - 683 556

KERALA STATE MENTAL HEALTH AUTHORITY License NO.7

30-04-2019

#### TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms.Neha Elizabath Eldho, BSc(Psychology), 4th semester student, Govt. College for Women. Thiruvananthapuram has undergone clinical internship in our institution during the period from 02-04-2019 to 30-04-2019 under the guidance of our Chief Psychiatrist. During this period she was given an orientation about different aspects of mental status examination, policies, programs and activities of the agency, group therapy, behavioral therapy, role of mental health professionals in a clinical setting etc.

Bethsada Hospital is a 100 bedded Mental Health Center with acute care, de-addiction, genatric and dementia care units and a rehabilitation unit. This hospital is approved by Indian Nursing Council and Kerala Nursing Council as a training centre for General Nursing and Midwifery, BSc Nursing, MSc Nursing (Psychiatry), MSW and MA (Psychology) students from institutions affiliated to different Universities of India.

Her character and conduct are good.

We wish all success in her future endeavors

Administrator / Director Bethsada Hospital

PRINCIPAL GOVT. COLLEGE FOR WOMEN THIRUVANANTHAPURAM-14



Haction Education Services or ty time 1996 program Code 1976 and Privation privation of Codes

130 +968 27955642 134 +160 22195903

pt lune 2019

this is to certify that NOORAAQTHAR MUHAMMEDALL interned at Ourelland International School, an IB World School in Muscat, Oman, for the month of May 2019.

During her time at OurPlanet International School. Noora worked under the guidance of the Learning Support Consultant. She was briefled on student profiles, their strengths and challenges, and support strategies. Noora assisted with student observations, in-class support in both Early Years and Primary Years classes, and uttended learning support fearn meetings.

Noora was always up for a challenge and did not shy away from taking on new untarmiliar tasks. She contributed positively during her time here and it was a pleasure having her at our school.

Sincerely.

Vunessa Sequeira

Learning Support Consultant

Tim Stoman

Principal

CONT. COLLEGE FOR WOMEN AND MANAGEMENT OF LIRAMINATION OF THE PROPERTY OF THE

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Phone: +914812573699 2573845 2573745



[ RA ] A Integrated Rehabilitation Centre for Addicts (IRCA)

(Total Response to Alcohol & Drug Abuse) (Reg No K 523/87)

E-mail: trainingtrada@gmail.com, tradairca@gmail.com Website\_www.tradakottayam.in Manganam P.O., Kottayam-686 018 Kerala, India

(NABH Accredited)

rost Res. Thomas K. Dommen

Mai Jacob Muriken

Sr Dr. Joan Chunkapura, M.M.S.

#### TO WHOMSOFVER IT MAY CONCERN

This is to certify that as part of curriculum requirement. Parvathy K.S., IV Semester B Sc. Psychology student of Govt. College for Women, Trivandium has undergone one month summer intenship mainting programme at our Desaddienon Center during the period from 10.4/2019 to 21/8/2019. During this period she has attended our various fectures and therapeutic programmes. She was also actively involved in the various ward activities of TRADA such as community meetings, group meetings and other various psychosocial treatment programmes. She has also conducted Psychological assessment lests for the patients during the tenure of her training here. She has been an earnest student and her performance during the training here was good.

21/5/2019

Sr. Dr. Joan Chunkapura Secretary

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PRINCIPAL SOVT. COLLEGE FOR WOMEN SHVANANTHAPURAM-14



#### Mental Health Action Trust

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### EXPERIENCE CERTIFICATE

This is in certify that Ms. Gayathri Devi J. S. BSc Perchology. Govi College for Women, Vachathacaud P.O. Urivandrain, insferowest training in the Short-Term Internship Programme of MHAT from 01/04/2019 to 40:04/2019. Her training included participating in home visits, psychosocial assessments and management of patients and families with a variety of mental timess in the community, working with community volunteers for the rehabilitation of patients and observing the day care activities and case supervision groups.

During bur tensire, size was hard working, sincere and with above average knowledge of the field. She participated actively in classes on Basics of Community Mental Health, Case History taking and Mental Status examination. Neurotic and stress related disorders, Psychotic and organic disorders, Psychotic and examination and Mental disorders and Classifications systems, which were combacted by experienced Psychiatrists and Clinical Psychologists of MHAT. She maintained a combacted tributionship terith her colleagues, staff and patients. She was able to adapt well to working at a variety of community situations and got along very well with everyone. We wish her good look in her future emicayors.

Dr. 1. Manoy Komur DPM, MO, FRCPsych Charlest Director, MHAT

\*

Mrs. Rekha Bose, M Phil Clinical Psychologist and Heisel Depositional of Clinical Psychology MHAT

PRINCIPAL

GOVE COLLEGE FOR WOMES:

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Mental Health Action Trust

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EXPERIENCE CERTIFICALE

This is no certify that Ms. Megha D Praced, its. Psychology, Good College for Women, Vactoria and P.O. Trivardian, underwent manning in the Short-Term Internship Programme of MHAT from 01/04/2019 to 10/04/2019 flee maining included participating in home visits, psychosocial assessments and management of paracuts and families with a variety of mental illness in the community, working with community volunteers for the rehabilitation of patients and observing the day care activities and case suppression groups.

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Dr T Manoj Kumur DPM, MD, FRCPsych Clinical Director, MHAT



Mrs. Rekha Bose, At Phil Chineal Psychologist and Head Department of Clinical Psychology. MHAT

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PRINCIPAL 60VT. COLLEGE FOR WOMEN THRUVANANTHAPURAM-14





#### Mental Health Action Trust

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EXPERIENCE CERTIFICATE

This is to certify that Ms. Bhagya Lakshmi. BSc Psychology, Govt College for Women. underwent training on the Short-Lerm Internship Varhuthacaud P.O. Towandrum Programme of MHAT from 01/04/2019 to 30/04/2019. Her training excluded participating in home visits, psychosocial assessments and management of patients and families with a variety of mental illness in the community, working with community volunteers for the rehabilitation of patients and observing the day care activities and case supervision groups

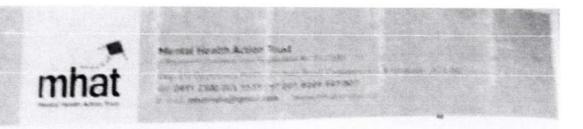
During her tenure, she was hard working, sincere and with above average knowledge of the field. She participated actively in classes on Basics of Community Mental Health, Case History taking and Mental Status examination, Neurotic and stress related desorders, Psychotic and organic disorders. Psychosocial assessment and Mental disorders and Classificatory systems, which were conducted by experienced Psychiatrists and Clinical Psychologists of MHAT. She maintained a cordial relationship with her colleagues, staff and patients. She was able to adapt well to working in a variety of community situations and got along very well with everyone. We wish her good luck in her future endeavors.

Dr T Manoj Kumar DPM, MD, FRCPsych

Cimical Director, MHAT

Mrs Rekha Bose, M Phil Chnical Psychologist and Ficad Department of Clinical Psychology. MHAT

PRINCIPAL GOVT. COLLEGE FOR WOMEN HIRUVANANTHAPURAM-18



#### EXPERIENCE CENTURALITY

This is to comply that Ms. Services J. ISS: Psychology, Cost Costogy for Women, Vachathacand P.O. Terransmen, underwors training in the Share-Torne basecushing Programme of MIEAT from 86/84/2018 to 18/04/2018. The assump included participating to bette costs, psychosocial inservices and insurgement of participating section is survey or mental disease in the community, working with community voluments by the reliabilitation of participation and observing the day care activities and observing the day care activities and one supervisors groups.

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This is to certify that Ms. Greeshma Ghosh, it's Psychology, Cover College for Women, Vazhuthacaud P.O. Trivandrum, underwent training in the Short-Term Internabip Programmas of MHAT from 01/04/2019 to 30/04/2019. Her training included participating in home visite psychosocial assessments and management of patients and families with a surrety of mental illness in the community, working with community volunteers for the rehabilitation of patients and observing the day care activities and case supervision groups.

During her tenure, she was hard working, sincere and with above average knowledge of the field. She participated actively in classes on Basics of Community Mental Health, Case History taking and Mental Status examination. Neurotic and afrees related disorders, Psychotic and organic disorders, Psychosocial assessment and Mental disorders and Classificatory systems, which were conducted by experienced Psychiatrists and Clinical Psychologists of MHAT. She maintained a cordial relationship with her colleagues, staff and patients. She was able to adapt well to working in a variety of community situations and got along very well with everyone. We wish her good luck in her future endeavors.

Dr T Manoj Kumar DPM, MD, FRCPsych Clinical Director, MHAT

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Mrs. Rekha Bosc, M Pful Clinical Psychologist and Head Department of Clinical Psychology, MHAT

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## EXPERIENCE CERTIFICATE

This is to certify that Ms. Neeraja R. BSc Psychology, Govt College for Women, Vazhathacatad P.O. Trivandrum, underwent training in the Short-Term Internship Programme of MILAT from 01/04/2019 to 30/04/2019. Her training included participating in home visits, psychosocial assessments and inanagement of patients and families with a variety of mental illness in the community, working with community volunteers for the rehabilitation of patients and observing the day care activities and case supervision groups.

During her tenure, she was hard working, sincere and with above average knowledge of the field. She participated actively in classes on Basics of Community Mental Health, Case History taking and Mental Status examination, Neurotic and stress related disorders, Psychotic and organic disorders, Psychosocial assessment and Mental disorders and Classificatory systems, which were conducted by experienced Psychiatrists and Clinical Psychologists of MHAT. She maintained a cordial relationship with her colleagues, staff and patients. She was able to adapt well to working in a variety of community situations and got along very well with everyone. We wish her good luck in her future endeavors.

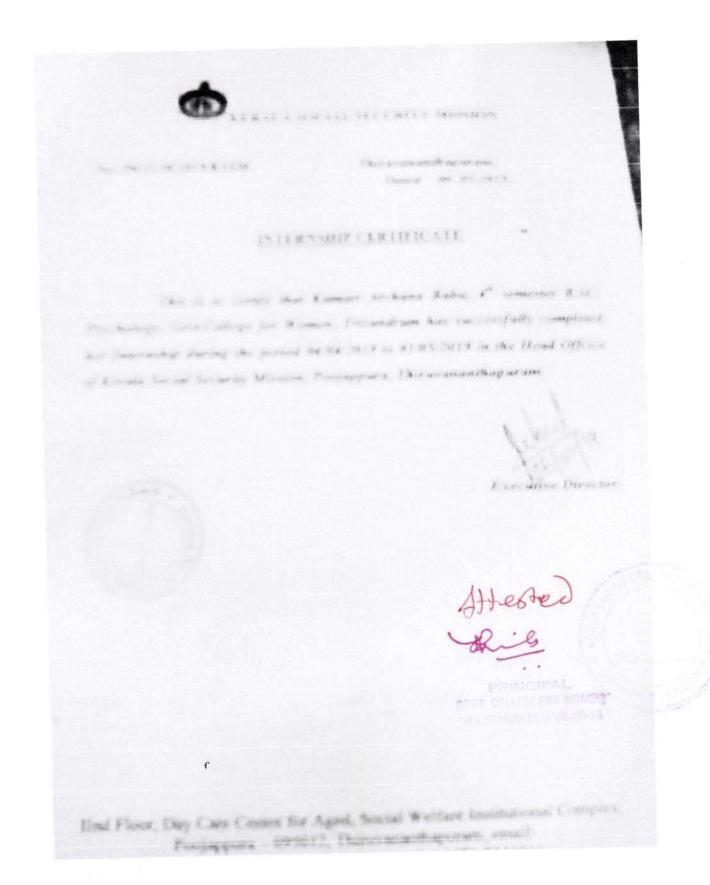
Dr T Manoj Kumar DPM, MD, FRCPsych

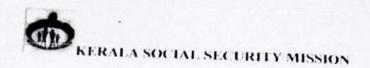
Clinical Director, MHAT



Mrs Rekha Bose, M Phil Clinical Psychologist and Head Department of Clinical Psychology, MHAT

> PRINCIPAL GOVT, COLLEGE FOR WOMEN CHRUVANANTHAPURAM-14





No: P6/3138/2019/KSSM

Thiruvananthapuram, Dated 06.05.2019.

## INTERNSHIP CERTIFICATE

This is to certify that Kumari Santhy Krishna, 4th semester B.SC. Psychology, Govt. College for Women, Trivandrum has successfully completed her Internship during the period 04/04/2019 to 03/05/2019 in the Head Office of Kerala Social Security Mission, Poojappura, Thiruvananthapuram.



Executive Director.

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## INTERNSHIP CERTIFICATE

This is to certify that Ms. Abbirami Nair S. a bonafide student of Government college of Women, Vazhuthacaud, Tevandrum pursuing her 4th Semester B Sc Psychology has attended the internship programme at Karunasai De-Addiction & Mental Health Research Institute in the month of April & May 2019 (20 Working Days) and she has successfully completed the internship Program

> For KARUNASAI DE-ADDICTION & MENTAL HEALTH RESEARCH INSTITUTE

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DE-ADDICTION & MENTAL HEALTH RESEARCH INSTITUTE

Vellanad, Thiruvananthapuram-695 543, Kerala Web: www.karunasai.com, Mail: karunasai.tvpm@gmail.com Tel: +91 472 2883856, +91 9995853075

Date 101518019

## INTERNSHIP CERTIFICATE

This is to certify that Ms. Reshma Jyothi S. a bonafide student of Government college of Women, Vazhuthacaud, Trivandrum pursuing her 4<sup>th</sup> Semester B Sc. Psychology has attended the internship programme at Karunasai De-Addiction & Mental Health Research Institute in the month of April & May 2019 (20 Working Days) and she has successfully completed the Internship Program.

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KARUNASAI DE ADDICTION & MENTAL HEALTH RESEARCH INSTITUTE

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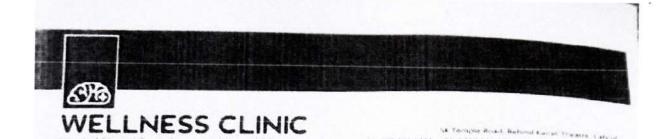
#### INTERNSHIP CERTIFICATE

This is to certify that Ms. Krishna Veni M.S. a bonafide student of Government college of Women, Vazhuthacaud, Trivandrum pursuing her 4th Semester B Sc. Psychology has attended the internship programme at Karunasai De-Addiction & Mental Health Research Institute in the month of April & May 2019 (20 Working Days) and she has successfully completed the Internship Program.

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Ref. WCIC118-19/05

Date: 31/05/2019

#### Internship Completion Certificate

This is to certify that Ms. Gopika P has successfully completed one month (May 2019) internship programme at Wellness Clinic, Calicut under the supervision of licensed Clinical Psychologists.

During her internship period, Ms. Gopika P has been exposed to administration of various Psychometric tests and conduction of Remedial training for Learning Disabled Children. She has also met work objectives sincerely. The intern has been punctual, hardworking and inquisitive throughout the period.

Shahul Hameed Director Wellness Clinic

Calicut

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No. No. 90595 7 May 2019

#### INTERNSHIP CERTIFICATE

Ms. Socha A Manuel

Intern

Decartment.

Department of Psychology

4 Period of Association with

From: 01 April 2019 To: 02 May 2019

Duties handled/tasks assigned

Observation of psychological assessment. Observation and intervention in the following Vineland Social Maturity Scale (VSMS) Seguin Form Board Test (SFB)

NIMHANS index for Specific Learning Disabilities.

(NIMHANS SLD).

Dyslexia Screening Test - Junior (DST-J). Wechsler Non Verbal Scale of Ability. (WNV).

Wechsier Abbreviated Scale of Intelligence. (WASI II)

Conner's Rating Scale

Group Intervention for children with Cerebral Palsy

and Global Developmental Delay.

Multidisciplinary Group Intervention for children with

Sensory Motor and Cognitive issues

Active team member for the 5 day camp 'Cognitio

Canny Kids' for children with learning disability.

5. Type of work

Internship

K G Satheesh Kumar

Executive Director (i/c)

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Mental Health Centre, Thiruvananthapuram No Act 3143/2015/MHC/TVPM

20.06.2019

## CERTIFICATE

This is to certify that Ms.Snutfry A.S. M.Sc. Psychology student from concernment. College for Women, Vazhuthacaud. Thiruvanunificaputain has attended internship in this hospital from 1st April 2019 to 31st May 2019(53 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.



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Mental Health Centre, Thiruvananthapuram No.Acd-3143/2015/MHC/TVPM

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This is to certify that Ms. Anseena Ashraf M Sc Psychology student from Government College for Women, Vazhuthacaud, Thiruvananthapuram has attended intereship in this hospital from 1<sup>st</sup> April 2019 to 31<sup>th</sup> May 2019(49 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the intereship.



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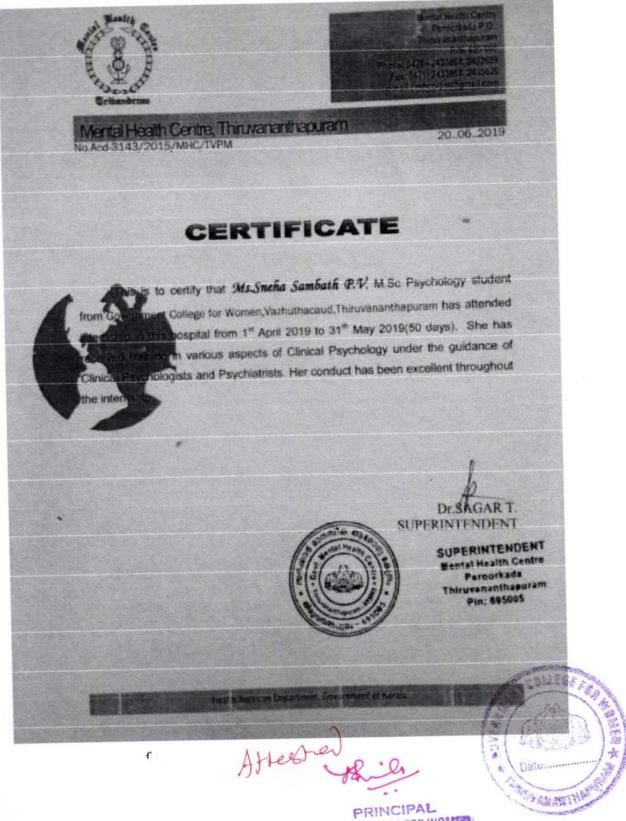
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Mental Health Centre, Thiruvananthapuram No Act 3143/2015/MHC/TVPM

20.06.2019

### CERTIFICATE

This is to certify that Ms. Anooja R M.Sc Psychology student from Government. College for Women Vazhuthacaud, Thiruvananthapuram has aftended internship in this bospital from 1st April 2019 to 31st May 2019(52 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.



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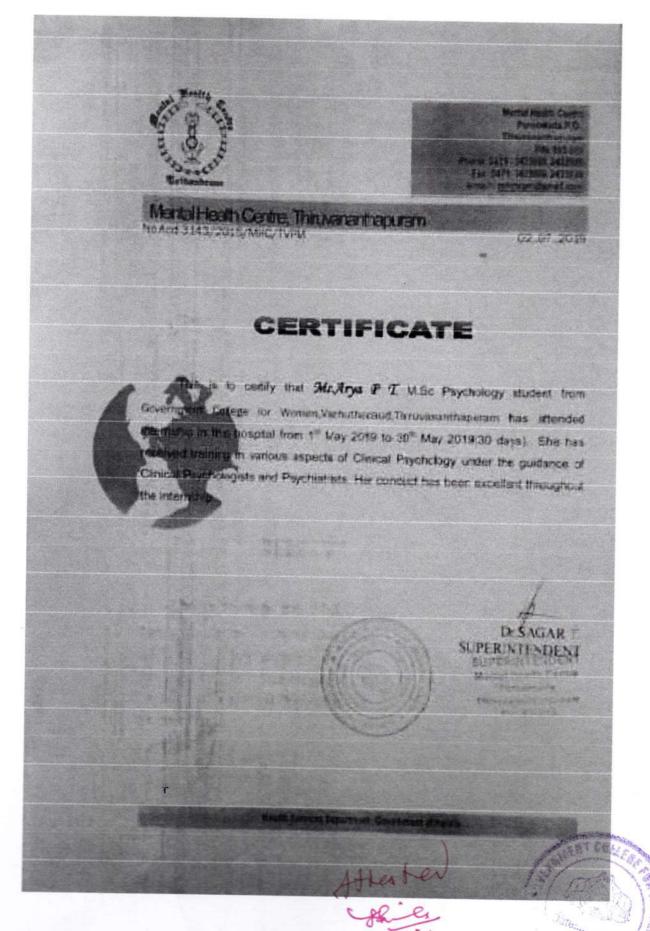
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Thebas to certify that Ms. Chenkathir Arya, M.Sc Psychology student from ent College for Women, Varhothacaud, Thiruvarianthapurans has attended Hip in this bospital from 1th May 2019 to 30th May 2019(30 days). She has ad baining in various aspects of Clinical Psychology under the guidance of Clinic & Psychologists and Psychiatrists. Her conduct has been excellent throughout the internah

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from Soverhount College for Women, Vazhuthacaud, Thiruvananthapuram has attended internship in this pospital from 1<sup>st</sup> May 2019 to 30<sup>st</sup> May 2019(30 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.



Dr SAGAR T SUPERINTENDENT

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### CERTIFICATE

This is to certify that Ms. Ganga Mohan, M.Sc. Psychology student from Government. College for Women, various has attended attendable in this bospital from 1<sup>st</sup> May 2019 to 30<sup>st</sup> May 2019(30 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.

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### CERTIFICATE

This is to certify that Ms. Heema Das R M.Sc Psychology student from Government College for Women, Vazhuthacaud, Thiruvananthapuram has attended attended in this hospital from 1" May 2019 to 30" May 2019(30 days). She has reserved training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.

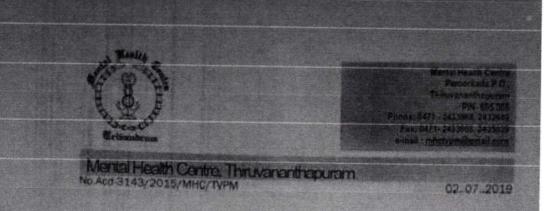
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This is to certify that Ms. Kaveri T S M.Sc Psychology student from Covernment Cullege for Women, Vazhuthacaud, Thiruvananthapuram has attended intenship in this hospital from 1° May 2019 to 30° May 2019(30 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.



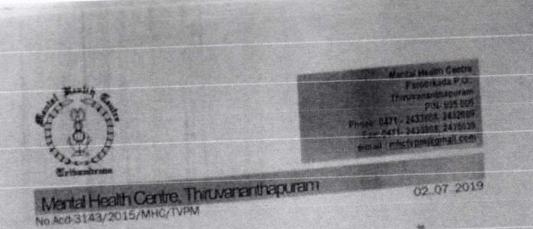
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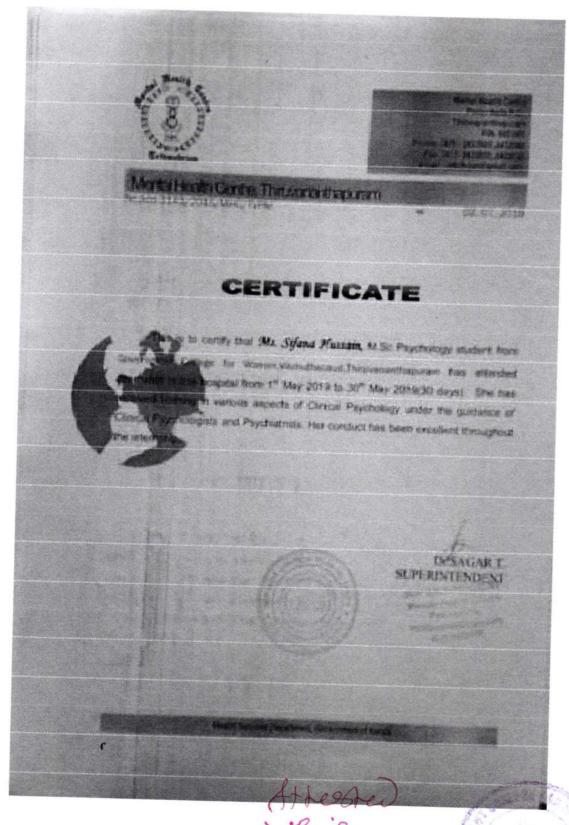
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Mental Health Centre, Thiruvananthapuram No.Add-3143/2015/MHC/TVPM

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This is to certify that Ms. Apama S. M.Sc. Psychology student from Government College for Women, Vazhuthacaud, Thiruvananthapuram has attended interestile in this pospital from 1<sup>st</sup> May 2019 to 30<sup>th</sup> May 2019(30 days). She has been excellent throughout the interestile.

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Mental Health Centre, Thiruvananthapuram

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## CERTIFICATE

is to certify that Ms. Krishna Prabha A R. M.Sc Psychology student College for Women, Vazhuthacaud, Thiruvananthapuram has attended cospital from 1" April 2019 to 31" May 2019(41 days). She has in various aspects of Clinical Psychology under the guidance of ologists and Psychiatrists. Her conduct has been excellent throughout

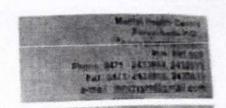


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Government College for Women Vazhuthacaud Thirrovananthapuram has attended themship in this hospital from 1<sup>st</sup> April 2019 to 31<sup>st</sup> May 2019(48 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internability.



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# CERTIFICATE

This is to certify that Ms. Dhanuja M S. M.Sc Psychology student from Government College for Women, Vazhuthacaud, Thiruvananthapuram has attended internship in this hospital from 1st April 2019 to 31th May 2019(52 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.



Dr.SAGAR T. SUPERINTENDEN] uvonanthapuram Pin: 695005

Health Services Department, Government of Kerala





Percentage 72
Introvanamination
Phone BATS 2432557 2432676
Fax 0471-2433651 2432676
6-mail microprocommit com

Mental Health Centre, Thiruvananthapuram No.Acd-3143/2015/MHC/TVPM

20.06.2016

# CERTIFICATE

This is to certify that Ms. Vysknavi V.M. M.Sc Psychology student from Government College for Wemen, Vazhuthacaud Thiruvenanthapuram has attended internship in this hospital from 1<sup>st</sup> April 2019 to 31<sup>th</sup> May 2019(53 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.



Dr.SAGAR T SUPERINTENDENT

SUPERINTENDENT
Mental Health Centre
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Health Services Department, Government of Korala

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PRINCIPAL 60VT, COLLEGE FOR WOMEN THIRUVANANTHAPURAM-14



## INSTITUTE FOR COMMUNICATIVE AND COGNITIVE NEUROSCIENCES (ICCONS)



### Certificate of Internship

This is to certify that Ms. Samkhili P., Fourth Semester M.Sc Psychology student (School Psychology Specialization) of Government College for Women, Trivandrum has completed internship at the institute for Communicative and Cognitive Neurosciences (ICCONS), Trivandrum, for a two months period from April 1<sup>st</sup> to May 31<sup>st</sup> 2019. During internship period the candidate has undergone postings for clinical observation at the Departments of Psychology. Medicine, Physiotherapy, Speech Language Pathology and Clinical Linguistics. She has also attended Clinical postings in the Department of Psychology under my guidance and supervision, which includes systematic observation and familianization of Case History taking conducting Psychological assessments including basic screening tests- Seguin Form Board (SFB) test, Tests of adaptive functioning-Vineland Social Maturity Scale(VSMS), Intelligence testing- Wechsler Intelligence Scale for Children-IV<sup>INCHA</sup> (WISC IV)<sup>INCHA</sup> and parental counseling. She has also undergone hands on training in conducting intelligence tests of WISC IVINDIA in cases of Specific Learning Disorders (SLD) and Intellectual Disabilities (ID), academic skill assessments in the areas of reading, writing and mathematical skills, and has undergone supervised training in delivery of therapeutic interventions for SLD, ID and ASD cases. She has also been equipped with theoretical know how in the area of Neuro developmental disorders, its clinical features and intervention practices, through lectures and discussions. It is hereby declared that Ms. Samkhili P. has successfully completed internship at ICCONS, Trivandrum and her professional conduct and performance is good.

Dr. Nandini Jayachandran

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PRINCIPAL BOYT COULERS FOR WOMEN THROVALASTHARDEAN IL

# INSTITUTE FOR COMMUNICATIVE AND COGNITIVE NEUROSCIENCES (ICCONS)

# Certificate of Internship

This is to certify that ASs. Archaela Mohan, Courtly Seminater M. Sc. Psychology student (School Preparer Specialization of Government College for Women. Trivandrum has completed interachin at the increase for Communicative and Copietive Neurosciences (ICCONS). Towardsum, for a two months period from April 1th To May 31th 2019. During internship period the candidate has umbergone postage for clinical observation at the Departments of Psychology. stedicine, Physiotherapy, Speech Language Pathology and Clinical Enginetics, She has also arrended Clinical postings is the Department of Psychology under my pandance and supervision. acco includes systematic observation and familiarization of Case History taking, conducting Psychological assessments including basic screening tests. Seguin Form Board (SFB) test, Tests of adaptive functioning vineland Social Manustry Scale(VSAE), intelligence testing. Wechsler intelligence. Scale for Children (V<sup>NOA</sup> (WISC IV)<sup>NOA</sup> and parental counseling, She has also undergone hands on training in conducting intolligence tests of WISC IV access in cases of Specific Learning Disorders (SED) and Intellectual Disabilities (IO), academic skill assessments in the areas of reading, writing and mathematical skills, and has undergone supervised training in delivery of inerapeutic interventions for SLD, 3D and ASD cases. She has also been equipped with theoretical know how in the area of Neuro developmental disorders, its clinical features and intervention practices, through lectures and discussions: It is hereby declared that Ms. Archana Mohan has successfully completed interesting at KCONS, Trivandrum and her professional conduct and performance is good

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PRINCIPAL GOVT, COLLEGE FOR WOMEN RIBUVANANTHAPURAM-14



33/2479 A. Nit 47 Bye-Pass Service Road Chaktoraparambu. Themannam P.O. Kochi - 682032. Land Mark. Opp. of Mc Donalds Restaurant. Next to Friends Motors Ph. 0484-2340756-2340757. Mod: 9672122200-6282693500. Email: administrator@inclusioncentral.com



31.05.2019

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Smt. Muhsina T.H., student of M.Sc. Psychology, Government College for Women, Vazhuthacadu, Trivandrum has successfully completed her internship for 2 months (1<sup>st</sup> April, 2019 to 31<sup>st</sup> May, 2019) from our institution. During her internship period she was trained in taking case histories, conducting both psychological and educational assessments, and providing therapies to students with special needs. She has done 3 complete assessments under the guidance of a psychologist. We wish her all regards for her future endeavours.

Ajit Moorkoth

Chairman

A JIT MOORKOTH

M.P.S., M.M., Splick (Australia, M.Sc.Papin, man game)

Consultant Rehabilitation Practitioner

Professional Special Educator & Psychologist

RCI Regn. No. A 03557

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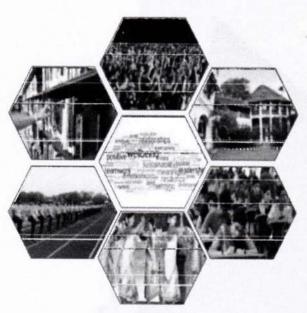


# **JEEVANI**

MODULE FOR COLLEGE COUNSELLORS

PART - I

# Counsellor's Manual





A Project of
Department of Collegiate Education
Government of Kerala
2019

Published by

Department of Collegiate Education, Government of Kerala (2019)

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Implemented by

Department of Collegiate

EducationGovernment of

Kerala

in

Technical Collaboration with

National Institute of Mental Health & Neurosciences(NIMHANS), Bengaluru

Counsellor's Manual (Module-I) Prepared by

Department of Psychology, Govt College for Women, Thiruvananthapuram

State Nodal Office of

Jeevani- College Mental Health Awareness Services

f

PRINCIPAL 60VT, COLLEGE FOR WOMEN THIRBUNANANTHAPURAM-14 Appendix.

# PROJECT COMPLETION CERTIFICATE (FOR ASPIRE SCHOLARSHIP - 2018-19)

This is to certify that Sri/Smt. Gopika.S. PG. student of GOVT. COLLEGE FOR WOMEN.

VAZHUTHACAUD, THIRUVANANTHAPURAM affisiated to Kerala University. has successfully completed his/her

Aspire Scholarship Project/Internship entitled POST Synthetic in a chicago of hyper CT with the stipulated month(s) from University institution

Our(Kerala University) institution

ASSISTANT PROPESSOR AND HEAD OF DEPARTMENT OF CHARACTER AND HEAD OF THE SERVE AND THE SERV

Signature Name & Designation

(Head of the Host Institution)

DEPARTMENT OF CHICARDER
LITEVESSILY OF KEEALA
KARIA VATIOM-895581, KERALA, REDIA

Name & Designation (Guide of Host Institution)



(Office Suppl)

ASSISTANT PROFESSOR AND HEAD AND DEPARTMENT OF CHEMISTRY UNIVERSITY OF KERALA KARIAWATTOM - MYS SAN THIRUVANANTHE PURKM

(Principal/HOD/Institution)

Encl.1) Project Report

2)Attendance certificate from parent institution(as per notification dated....)

Attoste ...

PRINCIPAL BOYT, COLLEGE FOR WOMEN THERITARY THAT URANI-14



## UNIVERSITY OF KERALA

Dr. SONY GEORGE Head of the Department



DEPARTMENT OF CHEMISTRY Keriavattom, Thiruvanenthapuram, Kerala, India - 895 581.

17-04-2019

## Certificate of Attendance

This is to certify that Ms. Gopika S., M. Sc. Student of Govt. College for Women, Thiruvananthapuram has successfully completed her Aspire Scholarship project/internship entitled "Post-synthetic modification of hyper-crosslinked ketone based microporous polymer for CO<sub>2</sub> adsorption" under the guidance of Dr. Suneesh C.V., Assistant Professor, department of chemistry, University of Kerala.

I also certify that she has cent percent attendance from 12-03-2019 to 31-03-2019 at department of chemistry, University of Kerala.

STATE OF COLUMN STATE OF STATE

Assistant Professor& Head

ASSISTANT PROFESSOR AND HEAD DEPARTMENT OF CHEMISTRY UNIVERSITY OF KERALA KARDAYATTOM HER SET THISUVANANTHAFDRAM

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#### Appendix-II

#### PROJECT COMPLETION CERTIFICATE (FOR ASPIRE SCHOLARSHIP - 2018-19)

This is to certify that Sn/Smt..... LEKSHMI C NAIR..... PG.....student of..... GOVT. COLLEGE FOR WOMEN, VAZHUTHACAUD, THIRUVANANTHAPURAM.....affiliated to Centre for Earth Science Studies......has successfully completed his/her Aspire Scholarship Project/Internship entitled Qualidy records a ring of patable, water Samples Colleged form grandwide within the stipulated month(s) from 13.43-3819, to 13.64.4812 under the guidance of Prof/Dr. K. Ansep Kaishnan of our(Centre for Earth Science Studies) institution

> Name & Designation (Hoad of the Host Institution)

ARTERISAN. (and (NyP)

Name & Designation (Guide of Host Institution)

Signature



Applied Francisco Pro-

(Principal/HOD/Institution)

PRINCIPAL BYT. COLLEGE FOR W VARASTNAPURAM

End 1) Project Report

2)Attendance certificate from parent institution(as per notification dated.....)

BOYT, COLLEGE FOR WOMEN THERUVANANTHAPURAM-14





### राष्ट्रीय पृथ्वी विज्ञान अध्ययन केन्द्र NATIONAL CENTRE FOR EARTH SCIENCE STUDIES पृथ्वी विज्ञान मंत्रालय, भारत सरकार

Ministry of Earth Sciences, Government of India

पो.बी.नं. 7250, आक्कुलम. तिरुवनन्तपुरम - 695011, भारत PB No. 7250, Akkulam, Thiruvananthapuram-695011, India



18.12.2019

Dr. K. Anoop Krishnan Scientist, Hydrological Processes Group Mob: 9447402468 sreeanoop@rediffmail.com

#### To whom so ever it may concern

This is to certify that Lekshmi C. Nair did her M.Sc. dissertation at NCESS during March-April 2019 by securing the prestigious Government of Kerala ASPIRE Fellowship. She has recently completed successfully her MSc in Chemistry from the University of Kerala with distinction. The topic of her research programme is Quality monitoring of portable water samples collected from groundwater sources in Trivandrum area, Kerala: Special reference to nutrients. During her dissertation period, she was well versed with the analytical facilities in the Central Chemical Laboratory which include Continuous Flow Analyser, AAS, MP-AES, CHNS Analyser, TOC Analyser and UV-Vis Spectrophotometer. She participated in the field programme for one week to collect the samples from Trivandrum urban area. She has analysed water/sediment samples for hydrogeochemical studies in the riverine system. Apart from this, she has done textural studies followed by analysing the separated components using Particle Size Analyser. Based on the results, she has come with a dissertation by referring many journal papers.

Dr. K. Anoop Krishnan

Dr. K. ANOOP KRISHNAN Scientist & Research Guide हों. के, अनुष कृष्णन / Dr. K. ANOOP KRISHNAM Steaden, প্ৰকাৰ বিধাৰিকা কা মধিনি Chairperson, Visiting Students Committee গ্ৰেম্বৰ কা নাজ্যৰ গুৱাল সম্পন্ন কাৰণৰ কাছ ESSO A storal centre for Latth Science Studies

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## राष्ट्रीय पृथ्वी विज्ञान अध्ययन केन्द्र NATIONAL CENTRE FOR EARTH SCIENCE STUDIES पृथ्वी विज्ञान मंत्रालय, भारत सरकार

Ministry of Earth Sciences, Government of India

पो भो न १२६०, आञ्चकृतमः शहरानन्तपृताः - ६७५०११, धारत PH No. 7250, Akkulam, Thiruvananthapuram-695011, India



18.12.2019

Dr. K. Anoop Krishnan Scientist, Hydrological Processes Group Mob: 9447402468 sreeanoop@rediffmail.com

## To whom so ever it may concern

This is to certify that Maneesha S did her M.Sc. dissertation at NCESS during March-April 2019 by securing the prestigious Government of Kerala ASPIRE Fellowship. She has recently completed successfully her MSc in Chemistry from the University of Kerala with first class. The topic of her research programme is Comparison of hydrochemistry of Karamana river and adjacent groundwater systems in urbanized areas of Trivandrum district. During her dissertation period, she was well versed with the analytical facilities in the Central Chemical Laboratory which include Continuous Flow Analyser, AAS, MP-AES, CHNS Analyser, TOC Analyser and UV-Vis Spectrophotometer. She participated in the field programme for one week to collect the samples from Trivandrum urban area. She has analysed water/sediment samples for hydrogeochemical studies in the riverine system. Apart from this, she has done textural studies followed by analysing the separated components using Particle Size Analyser. Based on the results, she has come with a dissertation by referring many journal articles.

Dr. K. Anoop Krishnan

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Dr. K. & SOP KRISHNAN Scie: 18 Research Guide

डॉ. के. अन्य कृष्णान / Dr. K. ANOOP KRISHNAN अध्यक्ता, अनिधि विधासियों की समिति Chairperson, Vesting Students Committee # war um ur ार्टाच ५ वता विकास अ**रवाक्ष के** ESSO N of Earth Science Studies STEEL MERSON tropped to all \$34 Akkulam, Huruvananthapuram- 695011, Ke

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PRINCIPAL. GOVT, COLLEGE FOR WOMEN THRUVANANTHAPURAM-14:

中四日/Fax +91 - 471 - 2442280 (Director), 4256

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#### Appendix-II

# PROJECT COMPLETION CERTIFICATE (FOR ASPIRE SCHOLARSHIP - 2018-19)

Signature

Name & Designation

(Head of the Host Institution)

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Name & Designation

(Guide of Host Institution)



(Principal/HOD/Institution)

BOYT, COLLEGE FOR WOMEN

Encl:1) Project Report

2)Attendance certificate from parent institution(as per notification dated.....)



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PRINCIPAL BOYT, COLLEGE FOR WOMEN YMERIVADUST CATODANIA

# Synthesis and Characterization of TiO<sub>2</sub> for Dye Sensitized Solar Cells

A project report submitted to

University of Kerala

In partial fulfillment for the award of the degree of

Master of Science in CHEMISTRY

By

ARYA. L. P

**REGISTER NUMBER: 635 17107001** 

DEPARTMENT OF CHEMISTRY

GOVT. COLLEGE FOR WOMEN

THIRUVANANTHAPURAM



Under the supervision of

Dr. P. SUIATHA DEVI

Photosciences and Photonics Section
Chemical Sciences and Technology Division
CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST)
Thiruxanaxishapuram 695019



June 2019



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PRINCIPAL \*\*
COVT. COLLEGE FOR WOMEN
PURHVANANTHAPURAM-14

## National Institute for Interdisciplinary Science and Technology



Tel: 0471-2515275

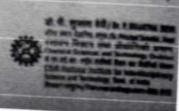
(Formerly Regional Research Laboratory)
Council of Scientific & Industrial Research
Industrial Estate P.O. Trivandrum -695 019, Kerala, India

Dr. P. Sujatha Devi
Senior Principal Scientist
Head Chemical Sciences and Technology Division (CSTD)
CSIR NIIST, Thiruvananthapuram 695 019.
Email: pssijathadevi@niist res in

#### CERTIFICATE

This is to certify that the work embodied in the project report entitled "Synthesis and Characterization of TiO<sub>2</sub> for Dye Sensitized Solar Cells" has been carried out by Ms. Arya. L. P under my supervision at the Photosciences and Photonics Section, Chemical Sciences and Technology Division of CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST). Thiruvananthapuram in partial fulfillment of her M.Sc. degree in chemistry of University of Kerala. The present work or any part thereof has not been submitted elsewhere for award of any other degree.

Thiruvananthapuram 30 June 2019 Dr. P. Sujatha Devi



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### SYNTHESIS AND CHARACTERISATION OF 1,2- DIHYDROPYRIDINES VIA THREE COMPONENT REACTION WITH AMINOPHENOL, DIENAMINODIOATE AND VARIABLE ALDEHYDES

A Project Report Submitted for the Partial Fulfillment of the Requirements for the Degree of MASTER OF SCIENCE

CHEMISTRY ASHA R S Register No: 63517107002



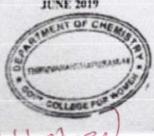
DEPARTMENT OF CHEMISTRY GOVT. COLLEGE FOR WOMEN, THIRUVANANTHAPURAM

Under the Supervision of



CHEMICAL SCIENCES AND TECHNOLOGY DIVISION CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY. THIRUVANANTHAPURAM-695019

JUNE 2019



PRINCIPAL GOVT, COLLEGE FOR WOMEN THURUVANANTHAPURAM-16



CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH (CSIR), GOVT. OF INDIA CHEMICAL SCIENCE AND TECHNOLOGY DIVISION (CSTD) Industrial Estate P.O. Thiruvananthapuram, INDIA, 695019

### CERTIFICATE

This is to certify that Mc. ASHARS. Master of Science in Department of Chemistry.

Govt. College for Women, Thiruvananthapuram, worked on the topic, entitled as "SYNTHESIS AND CHARACTERISATION OF 1,2- DIHYDROPYRIDINES VIA THREE COMPONENT REACTION WITH AMINOPHENOL, DIENAMINODIOATE AND VARIABLE ALDEHYDES" under my supervision in the organic chemistry Section, Chemical Sciences and Technology Division, CSIR-National Institute for Interdisciplinary Science and Technology. Thiruvananthapuram, in a partial fulfillment of the requirements for the Degree of Master of Science in Chemistry, University of Kerala, Thiruvananthapuram. The present work or any part thereof has not been submitted elsewhere for a degree.

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Dr. L RAVI SHANKAR

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COVI. COLLEGE FOR WOMEN
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studies on development of fireproof fabris for space application

MSs Projest report

# STUDIES ON DEVELOPMENT OF FIREPROOF FABRIC FOR SPACE APPLICATION

Project report

In partial fulfillments of the award of the degree of

Master of Science in Chemistry

Submitted by

ASWATHY.G

Candidate code: 63517107003

Under the guidance of

#### Mr. SRIRANGAM SIRIPOTHU

Scientist Engineer-SI

Propellant Fuel Complex
Vikram Sarabhai Space Centry
Thirtyananthapuram



DEPARTMENT OF CHEMISTRY

GOVT.COLLEGE FOR WOMEN
VAZHUTHACADU, THIRUVANANTHAPURAM, KERALA
KERALA UNIVERISTY

2019

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THEUVANANTHAPURAM-14

Studies on development of fireproof fabric for space application

MSc Project report

बारा सरकार अतरिक विधान विक्रम साराभाई अंतरिक केन्द्र विक्रमन्त्रपुरब-695 022 केरत. श्रास कार्च : (0471) 2563531 केसा : (0471) 2562031 तार/Crain: SPACE



Government of India Dopartment of Space Vikram Sarabhai Space Centre Thiruvananthapuram-695 022 Keralu, INDIA

Telephone (0471) 2563631.

Fax (0471) 2562031.

###re-mail sk\_manu@vssc.gov in

28th June 2019

FERM

#### CERTIFICATE

This is to certify that the project entitled 'Studies on Development of Fireproof Fabric for Space application' being submitted by Ms. ASWATHY.G in Partial fulfillment of the requirements for the award of Master of Science in Chemistry from Gove college for women, Varhothacadu, Thiruvananthapuram during the year 2019, is a bonafide record of the work done by her at Propellant Fuel Complex, Vikram Sarabhai Space Centre, Thiruvananthapuram under my guidance.

Project Guide

Srirangam Siripothu Scientist-SE Propellant Fuel Complex Division Head

Dr. Manu S K Deputy General Manager Propeliant Fuel Complex

Atherta skies

BOYT COLLEGE FOR WOMEN

### ISOLATION OF BIOACTIVES FROM HEXANE EXTRACT OF MEDICINALLY IMPORTANT PLANT CURCUMA AROMATICA

A Project Report Submitted in Partial Fulfilment of the Requirements for the Degree of MASTER OF SCIENCE

In

CHEMISTRY

By

DEVIPRIYA S.

Reg. No: 63517107004



#### DEPARTMENT OF CHEMISTRY GOVT. COLLEGE FOR WOMEN, THIRUVANANTHAPURAM

Under the Supervision of

Dr. SASIDHAR B.S.



ORGANIC CHEMISTRY SECTION
CHEMICAL SCIENCES AND TECHNOLOGY DIVISION (CSTD)
CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY
SCIENCE AND TECHNOLOGY
THIRUVANANTHAPURAM-695019

JUNE 2019

Attested

COVT. COLLEGE FOR WOMEN





# CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY

Council of Scientific & Industrial Research (CSIR), Govt. of India

Dr. Sesidher D. S. Scientist, Organic Chemistry Section Chemical Sciences and Technology Division E mail: dreasidharbs@gmail.com dreasidharbs@niist.res.in

09497260897(Mob) 0471 2515275 (Off) fax. +91 2491712

#### CERTIFICATE

This is to certify that Ms Devipriya S, has worked on "Isolation of Bioactives from Hexane Extract of Medicinally Important Plant Cureuma promatica" under the guidance of Dr. Sasidhar B. S., Scientist, Organic Chemistry Section, Chemical Sciences and Technology Division (CSTD) at National Institute for Interdisciplinary Science and Technology (CSIR), Thiruvananthapurum, in partial fulfilment of the Degree of Master of Science in Chemistry, Department of Chemistry, GOVT College for Women, Kerala University, Thiruvananthapurum.

Dr. Sasidhar R. S.

Thiruvananthapuramm June 2019

PRINCIPAL \*\*
THRUVANAGERATIOS MARIE

# Isolation and Characterization of bisbenzyllsoquinoline (DBBI) Alkaloids from the Rhizome of Cyclea peltata Hook. f. & Thoms.

In partial fulfillment for the award of the degree of

Master of Science in Chemistry

Hy.

Gopika.S

Register Number: 63517107005

Govt.College for Women,Thiruvananthapuram



Under the guidance of

Dr.K. V Radhakrishnan



SIR-National Institute for Interdisciplinary Science and Technolog

(CSIR-NIIST)

Thiruvananthapuram, Kerala 695019

June 2019

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# NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE & TECHNOLOGY Council of Scientific & Industrial Research

Government of india treamstreen 494 619, budie



Br. A.3. Radhakrishnan
Senior Principal Scientist
Octanic chemistry section
Chemical Sciences and Lechnology Division

Letephone 91 471 -2555429

## CERTIFICATE

This is its certify that Ms.Copika S has worked on "Isolation and Characterization of phisbens/Hsoquinoline (DBBI) Alkaloids from the Rhizome of Cyclespeltate Hook, f. & Thoms."

phisbens/Hsoquinoline (DBBI) Alkaloids from the Rhizome of Cyclespeltate Hook, f. & Thoms."

phisbens/Hsoquinoline (DBBI) Alkaloids from the Rhizome of Cyclespeltate Hook, f. & Thoms."

Therefore my guidance at National Institute for Interdisciplinary Science and Technology (CNIR).

Therevanaesthapuram, in partial fulfillment of the Degree of Master of Science in Chemistry (Organic Chemistry), Govt.College For Women, Trivandrum, Kerala.

Thiruvananthapuram

June 2019

Dr. K. V. Radhakrishnan

email: radhu2005@gmatt.com

Atherted PR

PRINCIPAL BOVT. COLLEGE FOR WOMEN THIRUVANANTHAPURAM.14

# SYNTHESIS OF PEO BASED HYBRID COMPOSITE SOLID ELECTROLYTE AND STUDY OF ITS IONIC CONDUCTIVITY WITH VARIATION OF TEMPERATURE

A Dissertation Submitted to the University of Kerala in the Partial Fulfillment of the Requirement for the award of the Degree of

Master of Science in Chemistry

By

LEKSHMI C NAIR

Reg.No: 63517107008



DEPARTMENT OF CHEMISTRY GOVT. COLLEGE FOR WOMEN THIRUVANATHAPURAM

Under the Supervision of

Mr. SOURAV MAJUMDER

Sci./Engr. SC



ADVANCED POWER SYSTEMS DIVISION VIKRAM SARABHAI SPACE CENTRE (VSSC)

THIRUVANATHAPURAM

KERALA - 695022

**JUNE 2019** 

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**NAR : (0471) 2562115** 



Government of India Department of Space Vikram Sarabhai Space Centre Thiruvananthapuram-695 022 Kerala, INDIA Telephone: (0471) 2562323 Fax: (0471) 2562115

email s\_sujatha@vssc.gov.in

उल्प्त शक्ति प्रणासी प्रमाम / Advanced Power Systems Division रासायनिक प्रणासी सूप / पीसीएम / Chemical Systems Group, PCM

#### BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled "Synthesis of PEO based bybrid composite solid electrolyte and study of its ionic conductivity with variation of temperature" was done by Ms. LEKSHMI C NAIR (Reg.No: 63517107008) at solid electrolyte lab, APSD/CSG 'Vikram Sarabhai Space Centre, Thiruvanathapuram-22 in partial fulfilment of the requirements for the award of degree of Master of Science in Chemistry from Govt. College for Women, Thiruvananthapuram, under my guidance during April 2019 to June 2019.

Sujatha S Head, APSD, CSG

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PRINCIPAL 60VT. COLLEGE FOR WOMEN THRUVANANTHAPURAM-14.

#### PROJECT REPORT ON

# EVALUATION OF PERFORMANCE OF PHENOLIC MICROSPHERES IN ABLATIVE TPS APPLICATION

in partial fulfillment of award of the degree of

Master of Science in Chemistry

Submitted by

MANEESHA S

Candidate code : 63517187009

Under the guidance of

Mr. SREERAM.P

Scientist /Engineer-SC

Propellent Fuel Complex

Vikram Sarabhai Space Centre

Thiruvanthapuram



Department of Chemistry

Government College for Women

Vezhutheceud

Thiruyanthapuram

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Coverament of India Department of Space Vikram Sarabhai Space Centre Thirveananthapurum 681 023 Acrela, 1921A

> Totaless (MET) 276,1731. Firs (MET) 276,0731.

#### CERTIFICATE

This is to certify that the project entitled "Evaluation of Performance of Phenolic Microspheres in Ablative TPS application" being submitted by Ms.MANEESHA.S in Partial fulfillment of the requirements for the award of Master of Science in Chemistry from Govt college for women, Vazhuthacadu, Thiruvananthapuram during the year 2019, is a bonafide record of the work done by her at Propellant Fuel Complex, Vikram Sarabhai Space Centre, Thiruvananthapuram under my guidance.

Project guide

Mr. Sreeram.P

Scientist/Engineer-SC

Propellent Fuel Complex

Division Head

Dr.S.K.Manu

Deputy General Manager

**Propellent Fuel Complex** 

Atheno

PRINCIPAL GOVT, COLLEGE FOR WOMEN WANANTHAPURAM-14



# PREPARATION AND CHARACTERIZATION OF CORE SHELL MATERIAL IN SOLID PROPELLANTS

Dissertation Submitted to the University of Kerwis

In the partial fulfillment of the Degree of

Master of Science in Chemistry

B

RAMNUS SHAHEED

Reg, No: 63517107011



DEPARTMENT OF CHEMISTRY

GOVT. COLLEGE FOR WOMEN,

THIRUVANANTHAPURAM

Under the Supervision of

Dr. SREEJITH M

SCIENTIST SE



PROPELLANT ENGINEERING DIVISION

VIKRAM SARABHAI SPACE CENTRE

THIRUYANANTHAPURAM

**AUGUST 2019** 

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PRINCIPAL GOVT, COLLEGE FOR WOMEN THRUVANIANTHAPURAM-14 चान साकार इन्तरिक विचान विक्रम साराधाई अन्तरिक केन्ट

हित्यक्रायम् - ६९५ ०२२, भारत कृष्ण : ०४७१ - २५६२४४४ / २५६२५५५ केवा : ०४७१ - २४१५२३६



Government of India Department of Space Vikram Sarabhai Space Centre Thiruvananthapuram - 595 022, India Telephone: 0471-2562444 / 256255 Fax: 0471-2415236

#### CERTIFICATE

This is to certify that the project entitled 'PREPARATION AND CHARACTERIZATION OF CORE-SHELL MATERIAL IN SOLID PROPELLANTS' is a bona-fide and authentic record of the work carried out by Ms. Ramnu S Shaheed during the period of April 2019 to June 2019 under my supervision at Propellant Engineering Division, Vikram Sarabhai Space Centre (VSSC). Thiruvanathapuram, in partial fulfillment of the award of the degree of MSc. Chemistry under the Kerala University in Govt. College for women, Thiruvananthapuram. The work presented in the project has not been submitted for any other degree or diploma earlier.

Place: Thiruvanathapuram

Date: 10-08-2019

Dr. Sreejith M Scientist/Engineer 'SE' Propellant Engineering Division Vikrarn Sarabhai Space Centre Thiruvananthapuram 695 022 Kerala.

पालेद अर्जास अनुसन्धान संगठन इसरी जिल्ल

Indian Space Research Organisation

PRINCIPAL \*..

COVT. COLLEGE FOR WOMEN
THIRDVANANTHAPDIRAM.14



# Phytochemical Investigation of Ficus benghalensis (Stem Bark)

A Project Report Submitted to the University of Kerula in Partial Fulfillment of the Requirement for the award of the Degree of

Master of Science

in

CHEMISTRY

BY

SHILPA B.

(Reg. No. 63517107012)



Kerala University

Under the Supervision of

Dr. K .V. RADHAKRISHNAN



Alteria

CHEMICAL SCIENCES AND TECHNOLOGY DIVISION (CSTD)

CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY

SCIENCE AND TECHNOLOGY (CSIR-NIIST) - THIRUVANANTHAPURAM-

695019

JUNE 2019

PRINCIPAL BOYT, COLLEGE FOR WOMEN CHORLEGISTAN CRAIN I

# NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE & TECHNOLOGY



Council of Scientific & Industrial Research
Government of Indus
Trivandrum 695 019, India

Organic Chemistry Section
Chemical Sciences and Technology Division

Telephone: 91.471-2515420 Fus: 91.471-2491712

### CERTIFICATE

This is to certify that Ms. Shilpu B. has worked on "Phytochemical Investigation of Ficus benghalensis (Stem Bark)" under my supervision at the Organic Chemistry Section of CSIR. National Institute for Interdisciplinary Science and Technology. That can are the partial fulfillment of the Degree of Master of Science in Chemistry, from Govi College for women. This is a supervision of the College for women.

Dr. K. V. Radhakrixhnan Senior Principal Scientist

June 2019 Trivandrum

email:radhu2005 a gmail.com

Atherec

GOVT. COLLEGE FOR WOMEN
- HIRITANANTHAPURAM-14



### युवा आदान-प्रदान कार्यक्रम YOUTH EXCHANGE PROGRAMME

प्रमाण-पत्र CERTIFICATE

प्रमाणित किया जाता है कि
Certified that KL/I6/sw/N/109254 SUO Akshaya Jose
ने सफलता पूर्वक

has successfully participated in the 2018, 7

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से तक किया गया। From & No 18 To 06 Dec 18

सहभागी के रूप में आपका/आपकी भूमिका अत्यधिक सराहनीय रहा/रही। अंडिंगे मिंडिंगे appreciated.

Place Mee Delle Somerie and Date

Conducted at\_

संफिटोट जनस्त महानिदेशक राष्ट्रीय केंद्रेट कोर, कारा Lt Gen

आदान-प्रदान कार्यक्रम

**Exchange Programme** 

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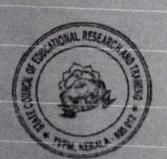


STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (SCERT) VIDYABHAYAN, POOJAPPURA, THIRUVANANTHAPURAM, KERALA - 695012 Phone: (0471) 2341883 (P), 2340323(O) Fax: (0471) 2341869

# DUTY CERTIFICATE

Certified that SA/Smt Marga Monow, Asse As Jersey of Poycholyge God Calya has participated in HSSTTP - General Module Planning on 14.11.2018 at SCERT, Kerala. His/her absence in the parent institution may be treated as on Other Duty (OD). Honorarium and TA have been paid by SCERT.

Poojappura 14.11.2018



Academic Coordinator

Atherted





STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (SCERT)
VIDYABHAVAN, POOJAPPURA, THIRUVANANTHAPURAM, KERALA - 695012
Phone: (0471) 2341883 (P), 2340323(Ö)
Fax: (0471) 2341869

## DUTY CERTIFICATE

Certified that Sri/Sight Shigh Joseph Park Professor of Bychology, Good Galys

has participated in HSSTTP - General Module Planning on 14.11.2018 at SCERT,

Kerala. His/her absence in the partie median may be treated as on Other Duty (OD).

Honorarium and TA have been baid

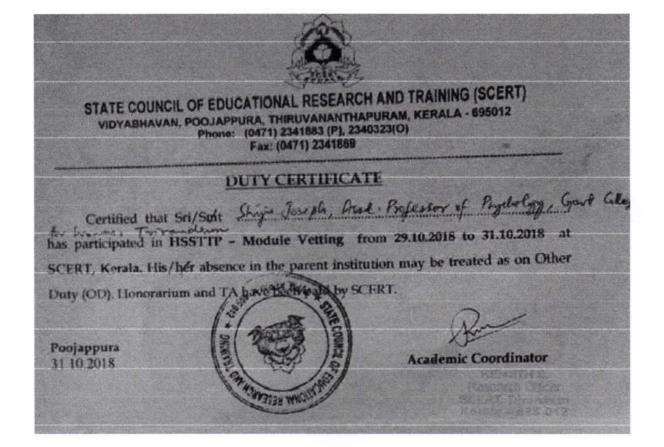
Poojappura 14.11.2018

Academic Coordinator

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PRINCIPAL GOVT. COLLEGE FOR WOMPH THRUVANANTHAPHRAM.14





PRINCIPAL BOYT, COLLEGE FOR WOMEN THRUVANANTHAPURANIA.



# CREATIVE PSYCHOLOGIST : APPLYING ART IN PSYCHOLOGY THREE DAY NATIONAL WORKSHOP 2018 Organised by : Department of Psychology, Government College for Women Thiruvananthapuram - 695014 Certified that Aparma 8 has been a participant / Organizer / Facilitator in the National Workshop Creative Psychologist: Applying Art in Psychology, Sponsored by Description Collegiate Education, Government of Kerala held at Government Co Women, Thiruvananthapuram on 26th, 27th and 28th November 2018

spile



#### Formal Internship Experience Certificate

This letter is issued as per request and our formal procedure:

This is to certify that Ms. Naurin Sitara, has been associated with our organization Stalwart People Co. (SPC) at our Sec 18, Gurgaon office from 3rd September 2018 to 12th Nov 2018.

She was with us as a full time HR Intern.

Her performance during her tenure was found good.

In accordance with our organization protocol & intimation received from Ms. Naurin Sitara, we relieved her from her duties on the mentioned closing of business hours.

We wish her all the very best in her future endeavors.

Authorised Signatories

Varun Shori

Senior Manager - Business Operations Stalwart People Company (SPC)

Gurgaon, India

384

Moanendra Singh

Director & Co-founder, Stalwart People Co...

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Stalwart People Co. (57C)

# 2017-2018

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# STITUTE OF MENTAL HEALTH & NEUROSCIENCE (IM

Govt. Medical College Campus, Kozhikode-08. www.lmhans.org

# Certificate

> PRINCIPAL GOVT, COLLEGE FOR WOMEN THRUVANANTHAPHRAM.14



Mental Health Centre Percorkada P.O., Thiruvananthapuram PIN- 695 005

Phone: 0471 - 2433868, 2432689 Fax: 0471- 2433868, 2435639

e-mail: mhctvpm@gmail com

Health Centre, Thiruvananthapuram 43/2018/MHC/TVPM

03..05..2018

# CERTIFICATE

is to certify that Ms. Amala Sivakumar, 2<sup>nd</sup> year M.Sc Psychologom Government College for Women, Vazhuthacaud, Thiruvananthapuram hanternship in this hospital from 1<sup>st</sup> April 2018 to 30<sup>th</sup> April 2018(30 days received training in various aspects of Clinical Psychology under the Clinical Psychologists and Psychiatrists. Her conduct has been proughout the internship.

THE THE COLLEGE FOR WOMPS

Dr.Saga



# Child Development Centre

(An autonomius Centrs under Government of Koralia)

Medical College Curryon, Thorseomanthaparams. 695.011. Korala. India
Phone. 0471-2553540 Fax. 0471-2447061

E-mail: cdctvprroi granil com. odckrralatir redifferati. 88m.

Website: www.cdckcrala.org

183/S3/CDC/2017

30/05/2018

The Head Department of Psychology Govt. College for Women Vazhuthacaud Thiruvananthapuram

Sir.

Subs Internable Programme for Second Year M.Sc. Psychology (4\* Semester) Students at CDC reg:

I am to inform you that the following 4th Semester M.Sc. Psychology (4th Semester) student has visited and observed the various clinical activities of the centre for 15 days between 14/05/2018 to 30/05/2018.

Date	Course	Name
14th to 30th May 2018	Second Year M.Sc. Psychology (4th semester)	Ms. SAMEERA A. S.

Thanking you,

Yours faithfully,

Dr. Babu George Director



Attested

BOVT. COLLEGE FOR WOMEN

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Merital Headh Centre
Percertada P.O.,
Thiruvananthapuram
Pin- 935 605
Phone: 0471 - 2433888, 243588
Fax: 0471- 243388, 2435939
e-mail: mhctvpmrogmail.com

Mental Health Centre, Thiruvananthapuram No.Acd-3143/2018/MHC/TVPM

03..05..2018

## CERTIFICATE

This is to certify that Ms.Saranya K, 2<sup>nd</sup> year M.Sc Psychology student from Government College for Women, Vazhuthacaud, Thiruvananthapuram has attended internship in this hospital from 1<sup>st</sup> April 2018 to 30<sup>th</sup> April 2018(30 days). She has received training in various aspects of Clinical Psychology under the guidance of Clinical Psychologists and Psychiatrists. Her conduct has been excellent throughout the internship.

PRINCIPAL COVT. COLLEGE FOR WOMEN THIRDVANANTHAPURAM.14 Dr.Sagar T.
SUPERINTENDENT

SUPERBLENDENT

Thoraca comments



## Certificate of Internship

This is to certify that Ms Ziya Arun, Fourth Semester M Sc Psychology student (Educational Psychology Specialization) of Government College for Women, Trivandrum has completed internship at the Institute for Communicative and Cognitive Neurosciences (ICCONS), Trivandrum, for a one month period from April 4th to May 5th 2018. During internship period the candidate has undergone postings for clinical observation at the Departments of Psychology, Medicine, Physiotherapy, Speech Language Pathology and Clinical Linguistics. She has also attended Clinical postings in the Department of Psychology under my guidance and supervision, which includes systematic observation and familiarization of Case History taking, conducting Psychological assessments including basic screening tests- Seguin Form Board (SFB) test, tests of adaptive functioning Vineland Social Maturity Scale(VSMS), intelligence testing. Wechster intelligence Scale for Children-IV (WISC-IV) and parental counseling Sha has also undergone hands on training in conducting intelligence tests of WISC IV now in cases of Specific Learning Disorders (SLD) and Intellectual Disabilities (ID), academic skill assessments in the areas of reading, writing and mathematical skills, and has undergone supervised training in delivery of therapeutic interventions for SLD, ID and ASD cases. She has also been equipped with theoretical know now in the area of Neurodevelopmental disorders, its clinical features and intervention practices, through presentations, lectures and discussions. It is hereby declared that Ms. Ziva Arun has successfully completed internship at ICCONS, Trivandrum and her professional conduct and performance is good.

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## राष्ट्रीय पृथ्वी विज्ञान अध्ययन केन्द्र NATIONAL CENTRE FOR EARTH SCIENCE STUDIES पृथ्वी विज्ञान मंत्रालय, भारत सरकार

Ministry of Earth Sciences, Government of India

ची औ.न. १२६०, ताक्कृता, विश्वकृतपुरम . १८५६६।, धारम PB No. 7250, Akkulam, Thiravananthaparam-695011, India

29th June 2018

#### CERTIFICATE

This is to certify that the dissertation entitled "DISTRIBUTION OF MAJOR IONS AND NUTRIENTS IN THE VAMANAPURAM RIVER BASIN, KERALA, INDIA" submitted by Miss. Devi A S, in partial fulfillment of the requirement for the award of Master's Degree in Chemistry of University of Kerala is an authentic record of the original research work carried out by her under my guidance and that no part of this report has formed the basis of the award of any degree, diploma or any other similar title of any university.

Mr. Prasenjit Das

Hydrological Processes Group

National Centre for Earth Science Studies

ESSO, Ministry of Earth Sciences, Government of India

Thiruvananthapuram, Kerala-695011

17290 (Director), 471-2511525 (Cher Ma APPREZ Website www.cess.res.in

इथारे थाविका प्रकारों कृतित के विको प्रतिसंध

Council of Scientific & Industrial Research National Institute for Interdisciplinary Science and Technology Thiruvananthapuram-695019, Kerala, India



Dr. C. H. Suresh

Principal Scientist

Chemical Sciences & Technology Division

Tel: +91-4712515472

E-mail: sureshch@gmail.com

sureshchaniist res in

21° June 2018

#### CERTIFICATE

This is to certify that the project report entitled "Characterization and Quantification of Tetrel Complexes: A theoretical Study" is the bonufide work carried out by Ms. Arya.M.R. student of M. Sc. Chemistry, Department of Chemistry, Govt. College for Women Thirty ananthapuram, in partial fulfillment for the award of the degree of Master of Science in Chemistry, University of Kerala, Thiruvananthapurant, under my supervision at the Chemical Sciences and Technology Division, CSIR - National Institute for Interdisciplinary Science and Technology, Thiravananthapuram, and that it has not been submitted elsewhere for the award of any degree or diploma.

ARYA MR

(Student)

भी भी एस सरेप Dr. C.H. SURFSH

PRINCIPAL GOVT. COLLEGE FOR WOMER "HIRUVANANTHAPHRAS" 1.0



### राष्ट्रीय पृथ्वी विज्ञान अध्ययन केन्द्र NATIONAL CENTRE FOR EARTH SCIENCE STUDIES पृथ्वी विज्ञान मंत्रालय, भारत सरकार Ministry of Earth Sciences, Government of India



के बो.न. 7250, आवकुलस, विकायसम्पूरम : 695011, भारत PB No. 7250, Akkulam, Thiruvanunthapuram-695011, India

#### CERTIFICATE

This is to certify that the dissertation entitled "HYDROGEOCHEMISTRY OF IDAMALYAR CATCHEMNET: DISSOLOVED LOAD SOURCES, CONTROLLING FACTORS AND QUANTIFICATIONS" submitted by Miss. Aiswarya AU, in partial fulfillment of the requirement for the award of Master's Degree in Chemistry of University of Kerala is an authentic record of the original research work carried out by her under my guidance and that no part of this report has formed the basis of the award of any degree, diploma or any other similar title of any university.

Scientist,

Hydrological Processes Group,

ESSO-NATIONAL CENTRE FOR EARTH SCIENCE STUDIES.

MINISTRY OF EARTH SCIENCES, GOVERNMENT OF INDIA,

AKKULAM, THIRUVANATHAPURAM - 11

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Scientist, Crustal Processes Group

047+ 2511520 (Off.) 9447552880 (Mob.)

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# राष्ट्रीय पृथ्वी विज्ञान अध्ययन केन्द्र NATIONAL CENTRE FOR EARTH SCIENCE STUDIES पृथ्वी विज्ञान मंत्रालय, भारत सरकार

Ministry of Earth Sciences, Government of India

ची ची मं 7250, आक्कृतम, तिरुकानतपुरम - 695011 भारत PB No. 7250, Akkulam, Thiruvonanthapuram-695011, India



CERTIFICATE

This is to certify that the discertation untitled "GEOCHEMISTRY OF SOILS WITH SPECIAL REFERENCE TO ENVIRONMENTAL POLLUTION - A STUDY OF PERIVAR BASIN, SOUTHERN WESTERN GHATS, KERALA" being submitted by Ms. Gayathri Devi E.S. a candidate of the Post Graduate in MSc. Chemistry, Kerala University in partial fulfillment of the requirement for the award of Degree of Master of Science in Chemistry, is the record at the bonafide work carried out under my supervision and guidance at the National Centre for Earth Science Studies, Thirdvananthapuram and no part of the dissertation has beast submitted in part or in full for any other diploma. degree of any university.

Dr. A. KRISHNAKUMAR

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राष्ट्रीयअंतर्विषयीविज्ञानतथाप्रौदयोगिकीसंस्थान रसायनविज्ञानतयाप्रौद्योगिकीप्रभाग (सीएसटीडी) वैज्ञानिकतथाऔद्योगिकअनुसंघानपरिषद् इंडस्टिरयलइस्टेटपी ओ., तिस्वनतपुरम, भारत695 019 NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE & TECHNOLOGY CHEMICAL SCIENCE AND TECHNOLOGY DIVISION (CSTD) डा. वी. करुणाकरण Council of Scientific and Industrial Research वरिष्ठवैज्ञानिक industrial Estate P.O., Thiruvananthapuram, INDIA 695 019 Dr. V. Karunakaran Senior Scientist 31"Aug., 2018 CERTIFICATE ...... This is to certify that Ms. Sana A. S., Master of Science in Department of Chemistry, Govt. College for Women. Thiruvananthapuram, worked on the topic, entitled as "Synthesis and Photophysical Characterization of 1,3,4-Oxadiazole Derivatives for Two Photon Imaging Applications" under my supervision in the Photosciences and Photonics Section, Chemical Sciences and Technology Division, CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvarianthapuram, in a partial fulfillment of the requirements for the Degree of Master of Science in Chemistry. University of Kerala, Thiruvananthapuram. The present work or any part thereof has not been submitted elsewhere for a degree. Dr. Karunakaran Venugopal 3 Project Supervisor Tel: +91-471-2515240; Fax: +91-471-2491712; E-mail: & remogration risk reason website: http://www.nist.res.in Athurter

> PRINCIPAL 60VT, COLLEGE FOR WOMEN \*\*KRIIVANANTHAPIIRAM-14.\*

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## राष्ट्रीयपृथ्वीविज्ञानअध्यायनकेन्द्र

## NATIONAL CENTRE FOR EARTH SCIENCE STUDIES

राष्ट्रीयपृथ्वीविज्ञानमंत्रासय, भारतसरकार

(Ministry of Earth Sciences, Government of India) थी.बि. सं. 7250, अवकुलम, तिश्वतंतपुरम 695031, मारत P. B. No. 7250, Akkulam, Thuruvananthapuram-695 031, India

Dr. K. Anoop Krishnan Scientist Hydrological Processes Group 07/09/2018

This is to certify that the dissertation entitled "REVAMPING OF MONTMORILLONITE CLAY WITH CHITOSAN FOR THE REMOVAL OF AQUEOUS PHOSPHATE ALONG WITH ASSESSMENT OF WATER QUALITY PARAMETERS NETHRAVATHI RIVER" submitted by Amrutha. P. R. in partial fulfillment of the requirement for the award of Master's Degree in Chemistry of University of Kerala is an authentic record of the original research work carried out by her under my guidance and that no part of this report has formed the basis of the award of any degree, diploma or any other similar title of any university.

> Dr. K. Ancop Krishnan (Supervising guide) 07th September 2018 of the stope generally is another existing

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And the Manager of the Control of th

Natural Resources and Environmental Management Group, National Centre for Earth Science Studies (NCESS), Akkalam, Thirusenanthapuram 695031, KERALA, INDIA www.cett.res.in

Phone:(Off) +91 471 2511690, (M): +91 9447402468, Fax. +91 471 2442280, E-mail: sreeanoop@sediffinal.com are accop@mein, URL http://cen.texin/people/ist accop.to

PRINCIPAL GOVT. COLLEGE FOR WOMEN THRUVANANTHAPHRAM-14

राष्ट्रीय अंतर्विषयी विज्ञान तथा प्रौह

### राष्ट्रीय अंतर्विषयी विज्ञान तथा प्रौद्योगिकी संस्थान NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY

वैज्ञानिक तथा ऑस्ट्रोमिक अनुसंधान परिषद इंबस्ट्रियास इस्टेंट पी. ओ, पापनकोड, तिस्वनंतपुरम, पासत - 695 019

Council of Scientific and Industrial Research industrial Estate P.O. Pappanamode Thiruseanthapuram, India-695 019

Dr. Animesh Samanta

Email: samanta@niist.res.in

Ramanujan Fellow

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Tel: 91-471-2495738\*613

Chemical Science and Technology Division

CSIR-National Institute for Interdisciplinary Science and Technology, (CSIR-NIIST)

#### CERTIFICATE

This is to certify that Ms. Praveena L. P. has satisfactorily pursued research on "A Unique Paradigm for a D-A-D Based Pyryllum and Pyridinium Fluorescence Probes for Ratiometric pH Sensing and Imaging of Lysoseme" under my supervision at Photosciences and Photonics Section in Chemical Sciences and Technology Division (CSTD), CSIR-National Institute for Interdisciplinary Science and Technology, (CSIR-NIIST) Thiruvananthapuram, for her partial fulfillment of the degree of Master of Science (M.Sc.) in Chemistry of Govt. College for Women, Thiruvananthapuram. The present work or any part thereof has not been submitted to any other university or institution for the award of any degree or diploma.

Anmest Domanta

Dr. Animesh Samanta

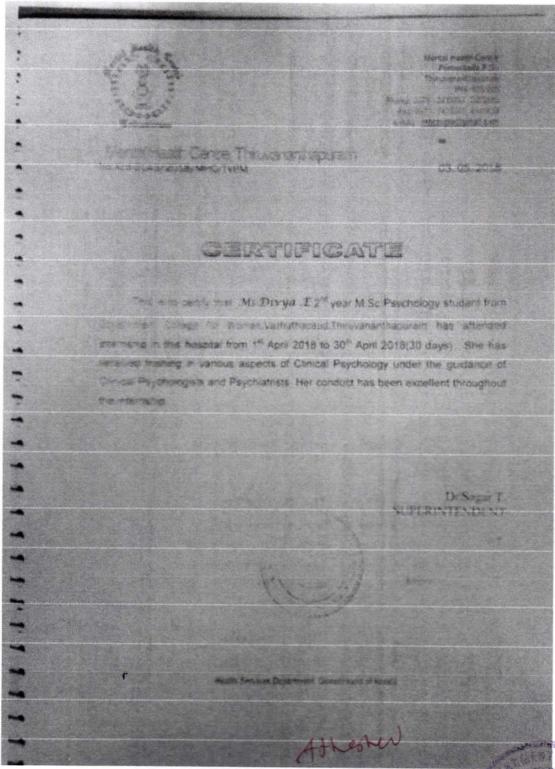
**Project Supervisor** 

(CSTD, CSIR-NIIST)

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# GOVT. COLLEGE FOR WOMEN, THIRUVANANTHAPURAM

Phone: 0471 2323317 E-mail psytraininglab a genail com

celtifical Support Agency for the Project on Diriclorment of Aprillade Low for School Students in Kerala in cullaboration with

Additional Skill Acquisition Programme (ASAP), Kerala

### CERTIFICATE OF APPRECIATION

No. SRUTHY MURALI has participated as a volunteer in the Skill

lentorship for Innovative Life Experience (SMILE) programme, a threelay residential camp designed by the Dept of Psychology. Good, College for Women,

thirticananthapuram and organized by the Additional Skall Acquisition Programme

ASAP, Kerala for class & students. The camp was held from 27th April, 2017 to 29th

April, 2017 at Trivandrum.

we appreciate Ms. SRUTHY MURALI for the contract role taken by her in issisting psychologists in the assessment and training sessions on career decision naking we consider this service as valuable and wish her ingvery best.

Attentie Bies

PRINCIPAL GOVT, COLLEGE FOR WOMEN FIREWANANTHAPURAM-14

Shijn Joseph



## राष्ट्रीय अंतर्विषयी विज्ञान तथा प्रौद्योगिकी संस्थान NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY

वैद्यानिक तथा औद्योगिक अनुत्यान परिषद् | Council of Scientific and Industrial Research
इंडस्ट्रियन इंप्टेंट की को माध्यनकोड़ तिरुपनतपुरंग भारत -695.019 | Industrial Edite PO | Papparamode Thrushardhapiram Industrial

#### CERTIFICATE

This is to certify that the dissertation entitled 'CASHEW NUT SHELL LIQUID (CNSL) AS BIO-SURFACTANT FOR ALUMINA HYBRID COATINGS' submitted to University of Kerala in partial fulfillment for the award of the degree of Master of Science in Chemistry is a record of the original research work done by ARUNIMA A. (Reg. No. 635 15107002) under my guidance and supervision at Functional Materials Section, Material Science and Technology Division, CSIR-NHST. Trivandrum during April to June 2017 and the dissertation has not formed the basis for the award of any degree' diploma/ fellowship or any other similar title to any candidate of any university or institution.

(Thesis Supervisor)

Shuhailath K.A.

(Co-guide)

Thiruvananthapuram

16th August 2017

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Tel: 91 471 2490324 Fax: 91 471 2491712: 2490389, (D) 25162267222 336 E-mail: director/@next.res.in. Website: http://





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Industrial Estate P.O., Thiruvananthapuram - 695 019, Kerala, INDIA

डाँ. के. आर. गोपिदास एक.प्.प्ससी Dr. K. R. GOPIDAS F.A.Sc मुख्य बौज्ञानिक Chief Scientist

रसायन विज्ञान तथा प्रौद् योगिक प्रभाग Chemical Sciences & Technology Division

#### CERTIFICATE

This is to certify that Ms. Athira. R. S. has worked on "SYNTHESIS OF ORGANIC NANOPARTICLE COMPOSED OF FRÉCHET TYPE DENDRONS AND ITS SURFACE MODIFICATION THROUGH GRAFTING OF ARYL RADICAL" under my supervision in the Photoscience and Photonics Section of Chemical Sciences and Technology Division, CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram in partial fulfilment of the requirement for the award of Degree of Master of Science in Chemistry of the University of Kerala. The present work or any part thereof has not been submitted to any other university or institution for the award of any degree or diploma.

Dr. K. R. Gopidas

(Project Supervisor)

Atteste

टेलीफोन/Telephone : +91-471-2515390 (O), 09446520537 (M) फैक्स/Fax : +91-471-2491712, 2490186; ई-मेल/E-mail : gopidaskr@niist.res.in, gopidaskr@gmail.com

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सीएसआईआर - राष्ट्रीय अंतर्विषयी विज्ञान तथा प्रौद्योगिकी संस्थान CSIR- NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY इंडस्ट्रियल इस्टेट पी.ओ.. तिरुवनंतपुरम - 695 019, केरल, भारत

Industrial Estate P.O., Thiruvananthapuram - 695 019, Kerala, INDIA

डाँ. के. आर. गोपिदास एक.प.एससी Dr. K. R. GOPIDAS F.A.Sc मुख्य वौद्यानिक Chief Scientist

रसायन विज्ञान तथा प्रौद् योगिक प्रभाग Chemical Sciences & Technology Division

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Dr. K. R. Gopidas

(Project Supervisor)

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रेलीफोन/Telephone : +91-471-2515390 (O), 09446520537 (M) फैक्स/Fax : +91-471-2491712, 2490186; ई-मेल/E-mail : gopidaskr@niist.res.in, gopidaskr@gmail.com

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रसायनविज्ञानतथापीद्योगिकीप्रभाग (सीएसटीडी)

वैज्ञानिकतयाऔद्योगिकअन्संधानपरिषद्

इंडस्टिरयलइस्टेटपी.ओ., तिरुवनंतपुरम, भारत695 019

NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE & TECHNOLOGY

डा. वी. करणाकरण वरिष्ठवैज्ञानिक Dr. V. Karunakaran Senior Scientist CHEMICAL SCIENCE AND TECHNOLOGY DIVISION (CSTD)

Council of Scientific and Industrial Research Industrial Estate P.O., Thiruvananthapuram, INDIA 695 019

18th Aug., 2017

#### CERTIFICATE

This is to certify that Ms. Simi Thomas, Master of Science in Department of Chemistry, Govt. College for Women, Thiruvananthapuram, worked on the topic, entitled as "Investigation of Interaction Dynamics of Hematin with an Antimalurial Drug Chloroquine Using Absorption, Fluorescence and Transient Absorption Spectroscopy" under my supervision in the Photosciences and Photonics Section, Chemical Sciences and Technology Division, CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, in a partial fulfillment of the requirements for the Degree of Master of Science in Chemistry, University of Kerala, Thiruvananthapuram. The present work or any part thereof has not been submitted elsewhere for a degree.

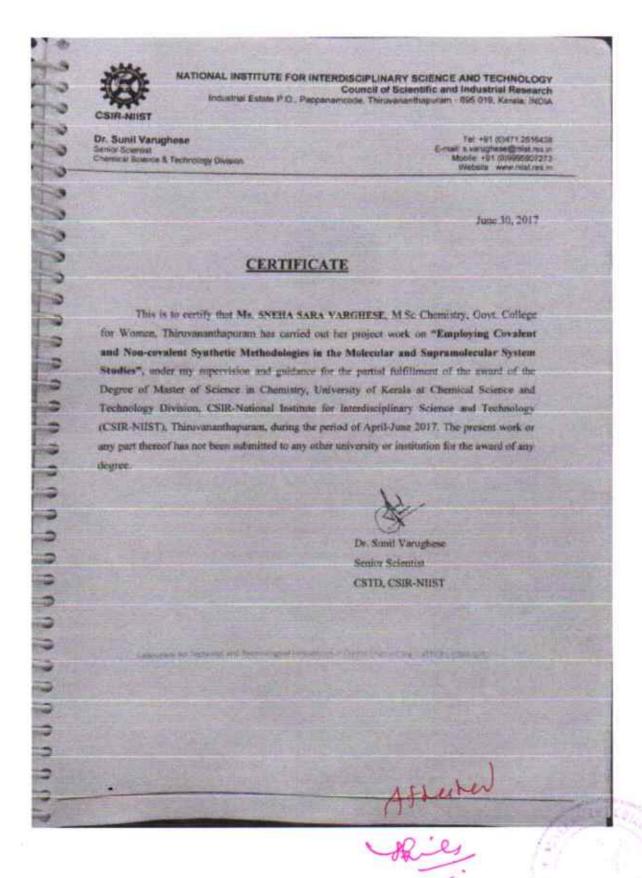
Dr. Karunakaran Venugopal

V. Kan Je

Project Supervisor

Tel: +91-471-2515240; Fax: +91-471-2491712; E-mail: & venageopalist mist reviewebsite: http://www.mist.rev.in

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## UTILIZATION OF SECONDARY AMINES IN UGI THREE COMPONENT REACTION FOR THE SYNTHESIS OF BENZOFURANS.

A project report submitted to University of Kerala in Partial fulfillment of the requirements for the degree of

Master of Science in Chemistry (pure chemistry)

Department of Chemistry, Government College for Women, Thiruvananthapuram



BY

SRUTHI SAMBAN

Reg. No: 63515107009

Under the supervision of

Dr. L. RAVI SHANKAR



Scientist
Chemical Sciences and Technology Division
National Institute for Interdisciplinary Science and Technology (CSIR-NIIST)
Thiruvananthapuram

2017

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### राष्ट्रीय अंतर्विषयी विज्ञान तथा प्रौद्योगिकी संस्थान NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND TECHNOLOGY

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद् | Council of Scientific and Industrial Research इडस्ट्रियल इस्टेट पी. ओ. पाप्पनंकोड, तिरुवनंतपुरम, भारत - 695 019

Industrial Estate P.O., Pappanamcode, Thiruvananthapuram, India-695.019

#### CERTIFICATE

This is to certify that Ms. SRUTHI SAMBAN has worked on "Utilization of secondary amines in Ugi three component reaction for the synthesis of Benzofurans" under my supervision at the chemical sciences and technology division of the National Institute for Interdisciplinary Science and Technology (CSIR), Trivandrum, for the partial fulfillment of the master degree of science in chemistry, Department of Chemistry, University of Kerala. The present work or any part thereof has not been submitted to any other university or institution for the award of any degree or diploma.

Trivandrum

July-2017

Dr. L. RAVI SHANKAR

(Project supervisor), SHANKAR

रीचोनिजी तस्थान (एन आई अई एस दी) CSIR-National Institute for Interdisciple Science & Technology (NHST)

GOVT. COLLEGE FOR WOMEN THRUVANANTHAPURAM-14

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पैकानिक तथा औरतेतिक अनुसंधान परिषद् | Council of Scientific and Industrial Research इंडस्ट्रियम इस्टेट की. को, पाण्यंकोड, विकार्यपपुरण, भारत - 695 019 Industria Estate P.O., Pappanancode Transportation inchestation 019

Dr. K.G Nishanth

Scientist

Material Science & Technology Division

#### CERTIFICATE

This is to certify that the work embodied in the project dissertation entitled "Preparation and characterisation of Al" doped ZnFe2Os pigments with solar reflectance" has been carried out by Ms. Suhara Beevi.S. under my supervision at CSIR-National Institute for Science and Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram, for the partial fulfillment of the Degree of Master of Science in Chemistry, University of Kerala.

Dr. K.G.Nishanth

Thiruvananthapuram

June 2017

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## NATIONAL LAW UNIVERSITY, DELHI

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### TO WHOMSOFVER IT MAY CONCERN

This is to certify that Ms. Mays Menos, Chiracel Psychologist and Assistant Professor of Psychology at Government College for Women. Thirtesaturithapuram, Kerala mainted in the successful completion of the Menul Health Research Project (Project) conducted by the Common the Death Penalty at National Law University Defect.

During her time with the Centre from 10th April 2017 - 10th May 2017, Mr. Menon was encurs as a least interviewer in carrying out the fieldware of the Project in Kerala. She led a same comprising mental health researchers, legal researchers, and note takers in conclusing marriers with prisoners under the sentence of death lodged in Central Prisons across Kerala and done tamilies. In addition, she concluded IQ assessments and nonlinistered climical issuing series to series for the the presence of mental illness among prisoners on death row in Kerala. We conserved Mrs. Means for the conscientious manner in which she corried out all the responsibilities she assumed during the course of the Project.

Please write to us at p39x2mindelti ac in for a more comprehensive evaluation of Mr. More a work with us.

We wish her all the very best in her future endeavours.

Dr. Amor Serendramis

Onector, Centre on the Death Penalty

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## NATIONAL LAW UNIVERSITY, DELIII

JUNE 4, 2018

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Shiju Joseph, Clinical Psychologist and Assistant Professor of Psychology at Government College for Women, Thiruvaranthapuram, Kerain assisted in the successful completion of the Mental Health Research Project (Project) conducted by the Centre on the Death Penalty at National I aw University Delhi.

During his time with the Centre from 10th April 2017 - 10th May 2017, Mr. Joseph was engaged as a lead interviewer in carrying out the fieldwork of the Project in Kerala. He led a team comprising mental health researchers, legal researchers, and note takers in conducting interviews with prisoners under the sentence of death lodged in Central Prisons across Kerala and their families. In addition, he conducted IQ assessments and administered clinical rating scales to screen for the the presence of mental illness among prisoners on death row in Kerala. We commend Mr. Joseph for the conscientious manner in which he carried out att the responsibilities he assumed during the course of the Project.

Please write to us at p39a@nludelhi.ac.in for a more comprehensive evaluation of Mr. Joseph's

We wish him all the very best in his future endeavours.

Dr. Anun Surendranth

Director, Centre on the Death Penalty

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### NATIONAL INSTITUTE OF SPEECH & HEARING

(Accredited as Excellest Institution by RC1 or 2002 1509 9001 2008 cortified Institution)

No.NISH/Acd/Entr-16/2016-17 11th November, 2016

Ms. Maya Menon

Trivandrum

Dear Ms. Maya Menon,

Sub: Involvement in the Preparation of Personality Test for student applicants at NISH

This letter is written to express our thanks and to acknowledge your sincere work as one of the resource persons involved in the development of the Personality Test for use in the admission process at NISH for students with disabilities.

It was nice to work with you and we look forward to associate with you in future too.

Dr. Samuel & Mathew

Executive Director

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# 2015-2016

PRINCIPAL COVT. COLLEGE FOR WOMEN

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#### CERTIFICATE

Certified that Smt Maya Menon, Assistant Professor, Department of Psychology, Govt College for Women, Third ananthapuram has contributed to the preparation of modules to train the participants of the SMILE (Skill Mentorship for Innovative Life Experience) camp, a capacity building programme on the need for skill development, for selected students of Class X in Govt/Aided schools in Kerala, organised by ASAP during April, 2016.

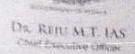
She was also a resource person at the Training of Trainers Programme for the SMILE camp 2016.

The commitment and involvement shown by Smt. Maya Menon in the institutive is exemplary.

Thingvananthapuram 10.11.2016 Ajith K
State Coordinator (Higher Secondar
ASAP Kerala

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### ADDITIONAL SKILL ACQUISITION PROGRAMME

A sount initiative of General & Higher Education Departments, Govt. of Kerala)

Thiruvananthapuram Dated 11th May, 2016

#### Letter of Appreciation

Professor of Psychology, Government College for Women, Thiruvananthapuram, who took a key role in developing a Psychometric Assessment Tool for the identification of aptitude of students applying for the Skill Courses of the Additional Skill Acquisition Programme (ASAP), a new initiative in higher education in Kerala.

The painstaking and systematic efforts of Sri. Shiju Joseph have been crucial in the success of the assessment tool that has been used for allotting skill courses for students of ASAP.

The scientific nature of the psychometric test tool developed by a team including Sri. Shiju Joseph has been widely appreciated at various levels.

The Additional Skill Acquisition Programme recognizes the efforts of Sri. Shiju Joseph and team involved in the exercise that lasted for six months from July, 2016.

Or Reju MT JAS
Chief Executive Officer
Additional Skill Acquisition Programme
Higher Education Department

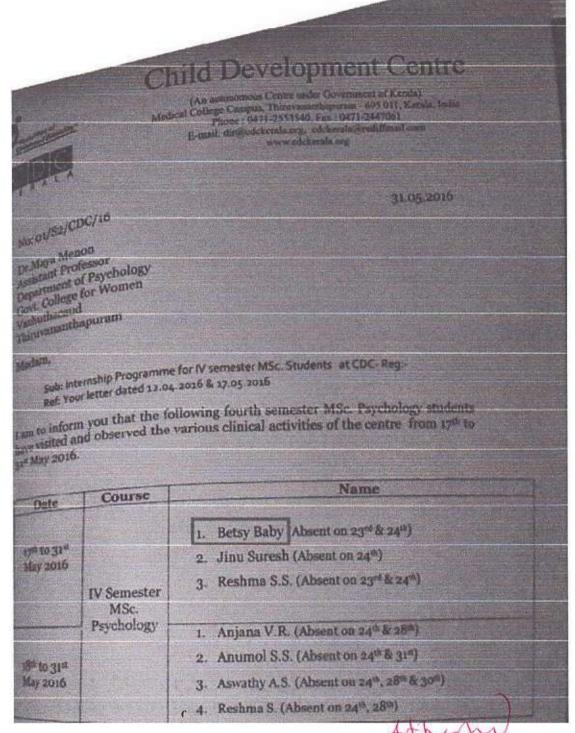
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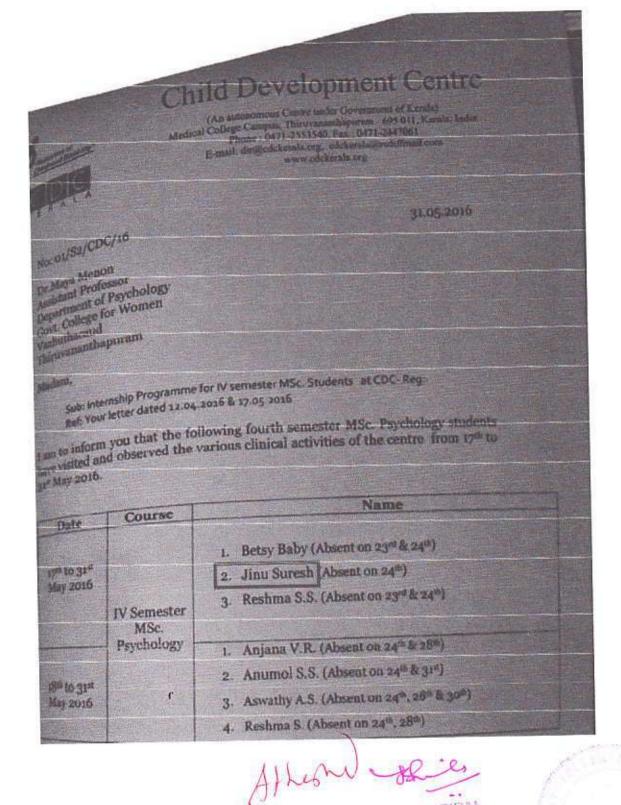
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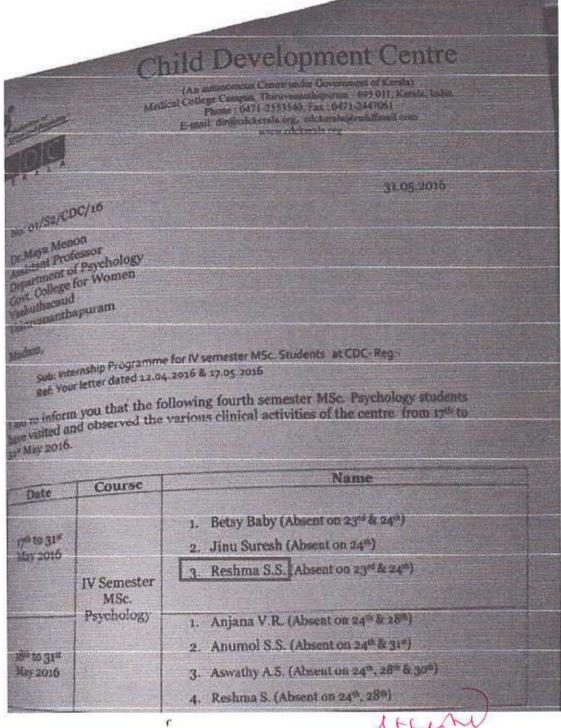




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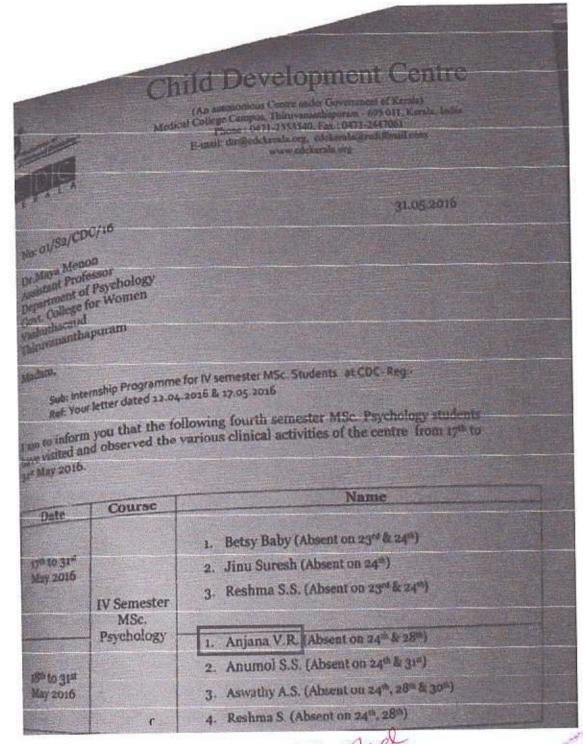


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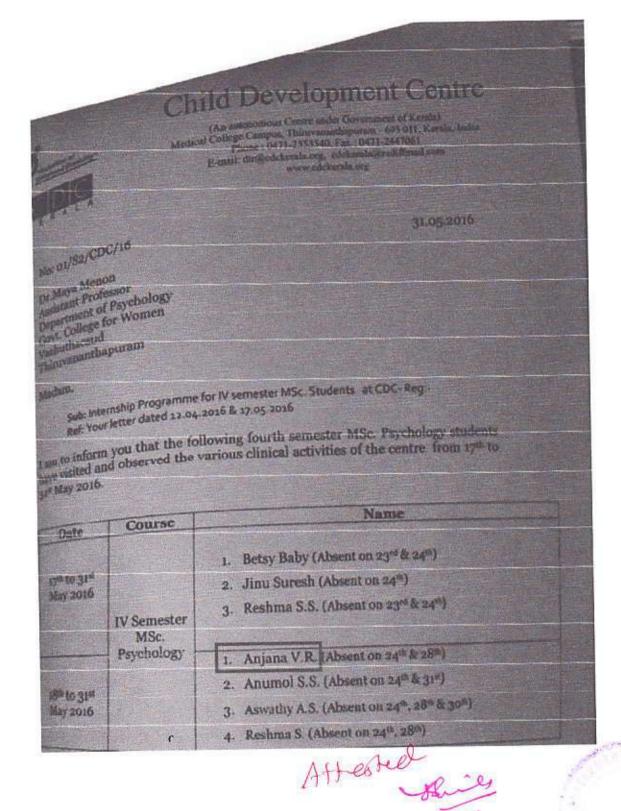
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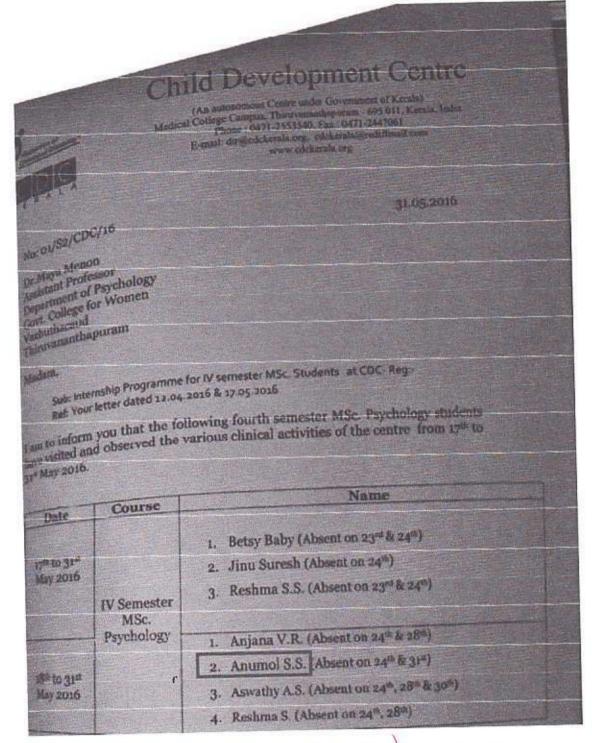


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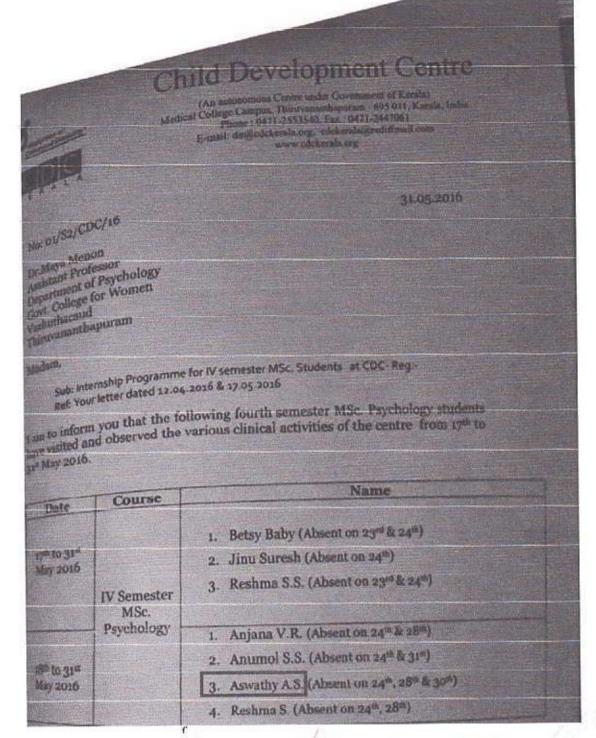
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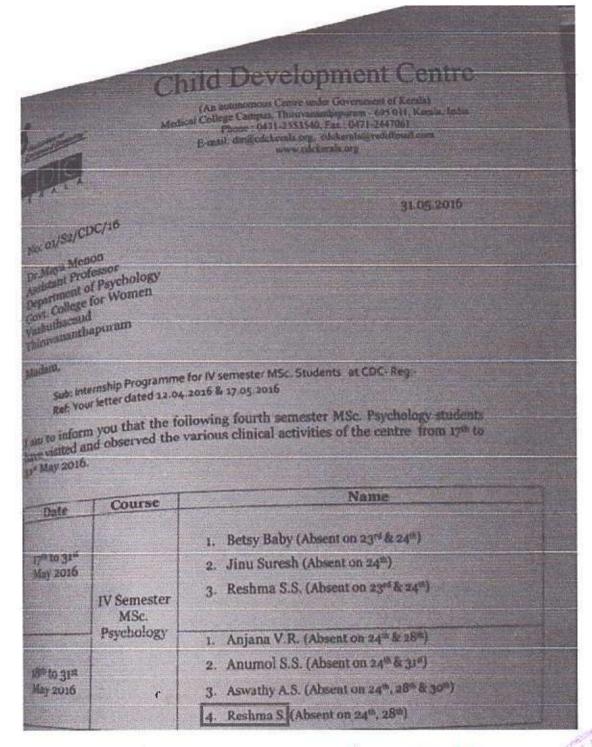
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वैज्ञानिक तथा औरारिक अनुसावन परिषय इक्टियन इस्टेंट वी जो, पानंतनीय, विकल्पतपुरम, भारत - 695 019 Council of Scientific and Industrial Research Industrial February Population of Preparamental Presearch Control of the Control

Dr. P. Prabhakar Rao Chief Scientist and Head Materials Science and Technology Division August 05, 2016

#### CERTIFICATE

This is to certify that Ms. ARATHLITTH P B has carried out the M.Sc project work entitled "Synthesis and characterization of High IR Reflecting Inorganic Pigments based on Rare Earth doped Bi<sub>2</sub>Ce<sub>2</sub>O<sub>7</sub> System for Energy Saving Applications" under my guidance at National Institute for Interdisciplinary Science and Technology (NHST), CSIR, Thiravananthapuram in partial fulfillment of the requirements for the Degree of Master of Science in Chemistry, Govt. College for Women, Thiravananthapuram, Kerala University. The present work or any part thereof has not been submitted for the award of any other Degree or Diploma.

Dr. P. Prabhakar Rao (Project Supervisor)

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Government of India
Department of Space
Vikram Sarabhai Space Centre
Theorementhapuram 606 927, India
Telephone: 0471-2362444/2362535
Fax: 0471-2706386

#### Polymers and Special Chemicals Division

#### PSCD/PSCG

Thirtevananthapurain 04th August 2016

#### CERTIFICATE

This is to certify that the thesis entitled "Effect of Different Alcohols on the Stability of Phenot-Formaldehyde Resin" is an arabentic record of the project work done by Ms. Aswini Narayanan of Govt College for Women, Thieuvananthapurum at Advanced Polymers and Ablatives Section(APAS/PSCD/PSCG/PCM) of Vikram Sarabhai Space Centre, Thiruvananthapurum under my supervision and guidance, during the period April to Judy 2016 in partial fulfilment of the regularements for the award of the Degree of Master of Science in Chemistry The results presented in this thesis have not been submitted for the award of any other degree or diploma.



Temina Mary Robert
Scientist/Engineer SD
APAS/PSCD/PSCG/PCAt

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वेह्नानिक समा और्टानिक अनुस्थान परिषय इसस्ट्रिक्ट इस्ट्रेट पी. जो. पामनंकोड, निरुवनंतपुरन, मारत - 695 019 Council of Scientific and Industrial Research Industrial Estate P.O. Papparamode Transportationary most estate.

Dr. P. Prabbakar Rao Chief Scientist & Head Materials Science and Technology Division

August 5, 2016

#### CERTIFICATE

This is to certify that Ms. DIVYA JAYAN has carried out the M.Sc project work entitled "Synthesis and Optical Properties of La<sub>2</sub>CuGe<sub>2</sub>O<sub>2</sub> based Green Pignients" under the guidance of Dr. P. Prabhakar Rao, Chief Scientist & Head, Materials Science and Technology Division, CSIR—National Institute for Interdisciplinary Science and Technology (NHST). Thiruvananthapuram, Kerala in partial fulfillment of the requirements for the Degree of Master of Science in Chemistry, Govi. College for Women, Thiruvananthapuram, Kerala University. The present work or any part thereof has not been submitted for the award of any other Degree or Diploma.

Dr. P. Prabhakar Rau (Project Supervisor)

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#### CSIR-NATIONAL INSTITUTE FOR INTERDISCIPLINARY SCIENCE AND

#### TECHNOLOGY

Council of Scientific & Industrial Research (CSIR), Govt. of India

Dr. Sasidhar B. S Scientist, Organic Chemistry Section Chemical Sciences and Technology Division 09497260897(Mob) E mail. drsosidharbs@gmail.com drsasidharbs@niist.res.in

0471 2515275 (Off) Fax: +91 2491712

#### CERTIFICATE

This is to certify that the work embodied in the thesis entitled: "ISOLATION AND SYNTHETIC TRANSFORMATION OF BIOACTIVES FROM AZADIRACHTA INDICA LEAVES has been carried out by Ms. GAYATHRI R. S. under my supervision and guidance at the Organic Chemistry Section. Chemical Sciences and Technology Division of the USIR-National Institute for Interdisciplinary Science and Technology (USIR-NIIST). Interparamenthapuram. The work is carried out in partial requirement for the award of the Master of Science in Chemistry. The present work has not been submitted to any other University of Institute for the award of any Degree or Diploma.

Dr. Sasiabar B. S.

क्षे. शांकार बा.एस

Thiravananthaparam haar 2016

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## ISOLATION AND IDENTIFICATION OF PHYTOCHEMICAL CONSTITUENTS OF METHANOLIC EXTRACT OF COCCINIA GRANDIS (IVY GOURD)

A work submitted to the University of Kerala in the Partial fulfillment of the requirements for the award of the degree of

Master of Science in Chemistry

Department of Chemistry, Government College for Women, Thiruvananthapuram



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N. Anjali Rep No.: 0.13-14 107 006

Under the guidance of Dr. L. Ravi Shankar



Scientist
Chemical Sciences and Technology Division
National Institute for Interdisciplinary Science and Technology (CSIR-NHST)
Thiruvananthapuram

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#### CERTIFICATE

This is to certify that Ms. Reshma, R., a student of Government College for Women, Vazhuthacaud. Thiruvananthapuram has carried out her project work entitled -Dye-Removal using Activated Carbon and Fe<sub>3</sub>O<sub>4</sub>/Oxidized Activated Carbon Magnetic Nanocomposite" under my supervision and guidance for the partial fulfillment of the award of the Degree of Master of Science in Chemistry at the Functional Materials Section (FMS), Materials Science and Technology Division (MSTD), CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NHST), Thiruvananthapuram during the period of 4-April -2016 to 3-July-2016.

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## ISOLATION OF URSOLIC ACID FROM TULSI LEAVES AND ITS DERIVATIVE PREPARATION

Dissertation submitted to the University of Kerala in partial fulfilment of the Requirements for the award of Aspire scholarship in Chemistry



Ву N.ANJALI

Under The Guidance of

Smt. Dr.ANI DEEPTHI

DEPARTMENT OF CHEMISTRY
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UNIVERSITY OF KERALA, KARIAVATTOM
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#### Certificate

This is to certify that the dissertation entitled "ISOLATION OF URSOLIC ACID FROM TULSI LEAVES AND ITS DERIVATIVE PREPARATION", submitted for the award of the ASPIRE SCHOLORSHIP IN CHEMISTRY of the University of Kerala, is a bonafide record of the research work carried out by NANJALI under my supervision and that no part thereof has been submitted earlier for any other Degree.

Dr. Ant Deepthi (Supervising Teacher)

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