



## **NIRMALA COLLEGE MUVATTUPUZHA**

Muvattupuzha P. O., Ernakulam Dist., Kerala - 686 661  
Telephones: 0485 2832361, 2836300  
e-mail: nirmalacollege@gmail.com, Website: www.nirmalacollege.sc.in

**FOURTH CYCLE NAAC ACCREDITATION 2019**

### **CRITERION 3**

#### **RESEARCH, INNOVATIONS AND EXTENSION**

3.5.1. Number of linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the-job training, research etc during the last five years

*Submitted to*



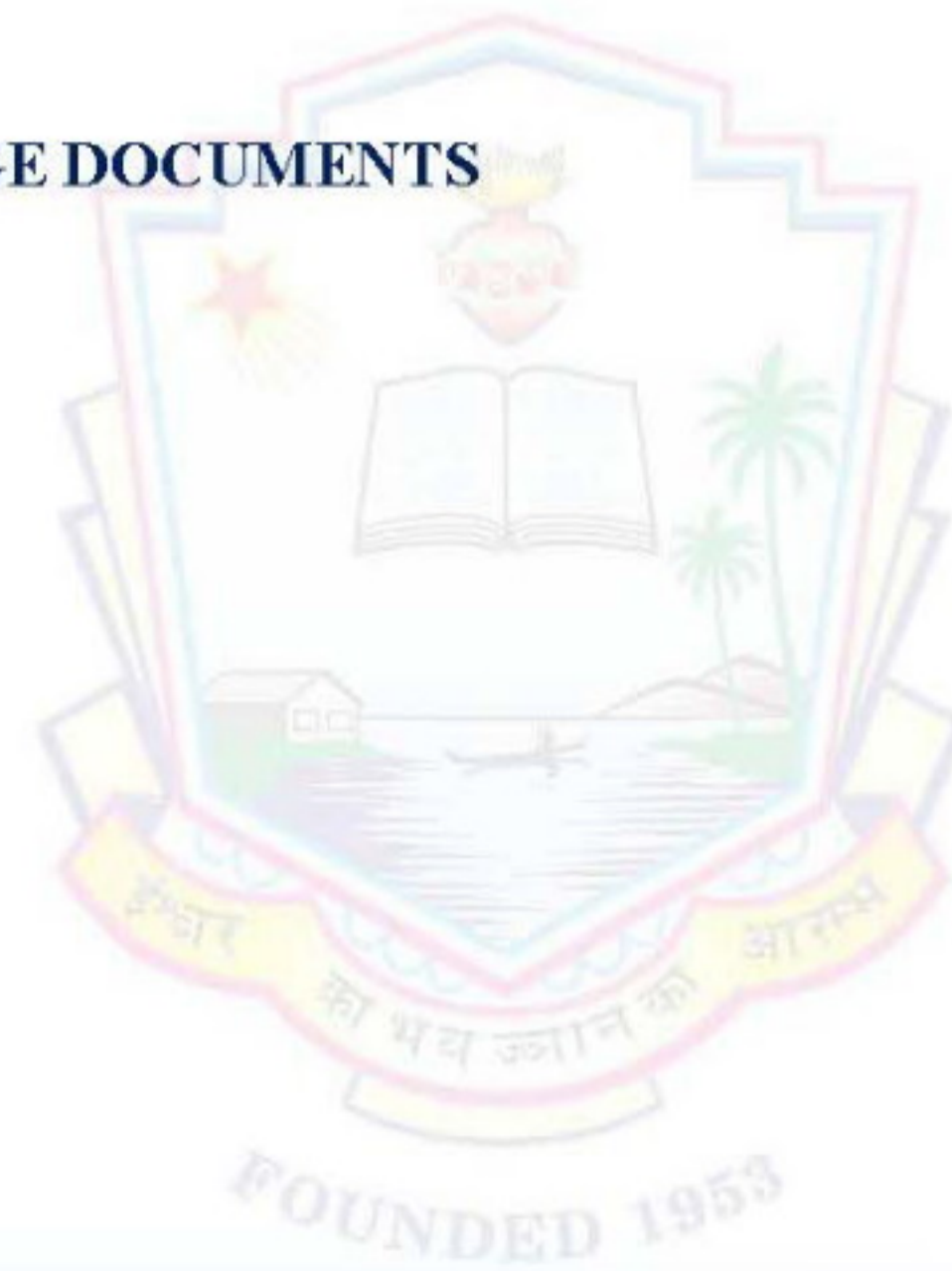
THE NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL



CRITERION 3  
RESEARCH, INNOVATIONS AND  
EXTENSION

CONTENTS

➤ LINKAGE DOCUMENTS



January 31, 2

Ref No. MM/FV/2019

**The Department Head  
Dept. of Communicative English  
Nirmala College  
Muvattupuzha**


Dear Sir,

Please refer to your letter requesting permission to visit our Works Unit Kodimatha.

Permission is hereby accorded to 27 students of your college to visit Works unit at Kodimatha on 04.02.2019 at 10AM subject to the condit that the team should observe the restrictions and regulations in the Pi area, while they are in the premises.

Regards,

Yours Sincerely,

  
**Justine Thomas**  
**Deputy General Manager, P&A**

Copy:

General Manager, Operations Kodimatha  
Assistant Manager, P&A Kodimatha (Please contact for necessary guidance at Unit)  
Front Office, Kodimatha  
Security Supervisor, Kodimatha



**LINKAGE**

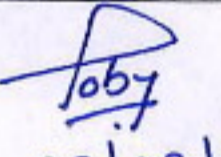

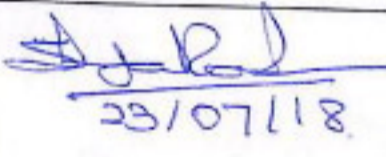

**DEPARTMENT OF COMPUTER SCIENCE, NIRMALA COLLEGE,  
MUVATTUPUZHA  
&  
M/S PROGRESSIVE SOFTWARE SOLUTIONS AND TRAINING  
TECH FLOOR, KOYAS TOWER  
P.O JUNCTION, MUVATTUPUZHA**

This linkage is signed between M/s Progressive Software Solutions and Training (first party) and Department of Computer Science (Second Party) for the academic year 2018-19. It is agreed by Department of Computer Science and M/s Progressive Software Solutions and Training to impart internship to the students in the field of "Web and Mobile Application Development". Both the parties have discussed in detail the area of co-operation and mutually agreed to make the linkage. Now it is agreed by and between the parties with the following terms and conditions.

**Terms and Conditions**

1. The first party will extend their facilities to provide internship to the students in the area of "Web and Mobile Application Development".
2. No rent or any other incidental charges shall be paid by the second party for using the infrastructure facilities of the first party.
3. The second party may pay a nominal fee on demand as training fee to the first party.

For and behalf of

Institution	M/s Progressive Software Solutions and Training, Tech floor, Koyas Tower P.O. Junction, Muvattupuzha	Department of Computer Science, Nirmala College, Muvattupuzha
Party	First Party	Second Party
Name	Toby Jose	P. Shija Paul
Designation	Centre Head – M/s Progressive Software Solutions and Training	Head of the Department
Signature	 23/07/18 	 23/07/18 






**LINKAGE**  
**DEPARTMENT OF MANAGEMENT STUDIES (TOURISM STUDIES),**  
**NIRMALA COLLEGE, MUVATTUPUZHA**  
**&**  
**KAIROS INSTITUTE, THODUPUZHA**

This linkage is signed between Kairos Training Institute and Department of Management Studies (Tourism Studies) for the academic year 2018-19. It is agreed by Department of Management Studies and Kairos Training Institute to impart internship to the students in the field of "TRAVEL AGENCY TRAINING". Both the parties have discussed in detail the area of co-operation and mutually agreed to make the linkage. Now it is agreed by and between the parties with the following terms and conditions.

**Terms and Conditions**

1. The first party will extend their facilities to provide internship to the students in the area of "TRAVEL AGENCY TRAINING".
2. No rent or any other incidental charges shall be paid by the second party for using the infrastructure facilities of the first party.
3. The second party may pay a nominal fee on demand as training fee to the first party.

For and behalf of

Institution	Kairos Training Institute, Thodupuzha	Department of Management Studies(Tourism Studies), Nirmala College, Muvattupuzha
Party	First Party	Second Party
Name	Mr. Jacob Mathew	Ms. Ancy John
Designation	CEO – Kairos Training Institute, Thodupuzha	Head of the Department
Signature	 	 Head of the Dept. Dept. of Tourism Studies Nirmala College, Muvattupuzha



## LINKAGE

### DEPARTMENT OF COMMUNICATIVE ENGLISH, NIRMALA COLLEGE, MUVATTUPUZHA & OYI STUDIO, THODUPUZHA

This linkage is signed between OYI STUDIO (first party) and DEPARTMENT OF COMMUNICATIVE ENGLISH (Second Party). It is agreed by Department of Communicative English and Oyi Studio to impart internship to the students in the field of "ONLINE JOURNALISM, CAMERA HANDLING and PUBLIC RELATIONS". Both the parties have discussed in detail the area of co-operation and mutually agreed to make the linkage for the academic year 2018-2019. Now it is agreed by and between the parties with the following terms and conditions.

#### Terms and Conditions

1. The first party will extend their facilities to provide internship and practical seminars to the students in the area of "ONLINE JOURNALISM, CAMERA HANDLING and PUBLIC RELATIONS".
2. No rent nor any other incidental charges shall be paid by the second party for using the infrastructure facilities of the first party.
3. A nominal fee on demand as training fee to the first party may be paid by the second party.
4. Certificates will be provided by the first party as per the completion of internship.

For and behalf of

Institution	OYI STUDIO	DEPARTMENT OF COMMUNICATIVE ENGLISH, NIRMALA COLLEGE, MUVATTUPUZHA
Party	First Party	Second Party
Name	Abhijith Roy	Prince Samuel Joseph
Designation	Director – OYI STUDIO	Head of the Department
Signature	 <b>OYI STUDIO</b> Thodupuzha Mangattukavala By-Pass PH: +91 9747019725 www.oyistudio.com	 Course Co-ordinator Dept. of Comm. English Nirmala College Muvattupuzha - 686 661





केन्द्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान  
(भारतीय कृषि अनुसंधान परिषद)  
[कृषि अनुसंधान एवं शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार]

**Central Marine Fisheries Research Institute**

(Indian Council of Agricultural Research)

[Department of Agricultural Research and Education, Ministry of Agriculture, Govt. of India]

पोस्ट बॉक्स सं. 1603, एरणाकुलम नोर्थ पी.ओ., कोच्ची - 682018, केरल, भारत

Post Box No. 1603, Ernakulam North P.O., Kochi - 682018, Kerala, India

Phone: 91 484 2394867/2391407 Fax: 91 484 2394909/2396685 Email: director@cmfri.org.in Web: www.cmfri.org.in



No.28-2/2018-HRD (part)

Dated: 27/03/2018

To,

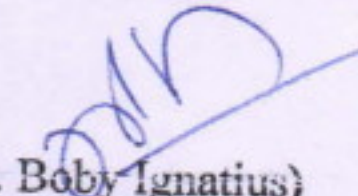
Dr. P. Kaladharan,  
Principal Scientist,  
Through Head FEMD,  
CMFRI, Kochi.


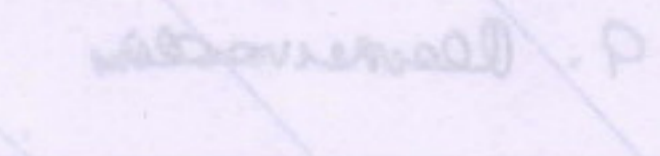
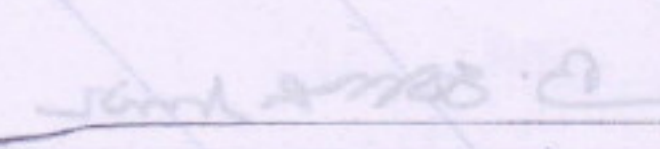
Sub: Permission for job oriented training - Reg.  
Ref: email dated 23/03/2018

Sir,

With reference to the letter cited above, I am directed to convey the approval of the Director CMFRI for conducting five days job oriented training programme for seven B.Sc. (Botany) students of Nirmala College, Muvattupuzha on "Sea weed" at Fishery Environment management Division, CMFRI, Kochi during 17<sup>th</sup> to 21<sup>st</sup> April, 2018 on Payment basis..

Yours faithfully,

  
(Dr. Bobby Ignatius)  
Scientist-in-Charge  
HRD Cell

	Head of
	Scientist-in-Charge
	HRD Cell



## LINKAGE

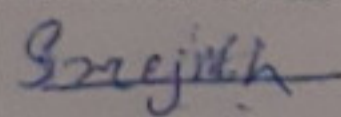
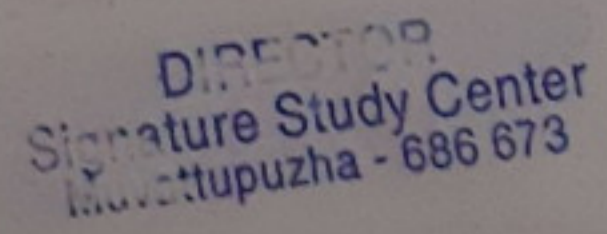
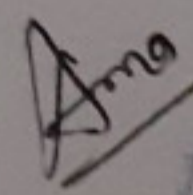
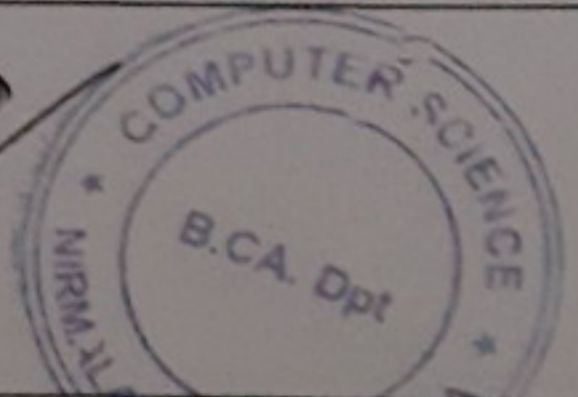
### DEPARTMENT OF COMPUTER SCIENCE (BCA), NIRMALA COLLEGE, MUVATTUPUZHA & SIGNATURE

This linkage is signed between Signature (first party) and Department of Computer Science (Second Party). It is agreed by Department of Computer Science (BCA) and Signature to impart internship to the students in the field of "Software Development" during the year 2019, 2020. Both the parties have discussed in detail the area of co-operation and mutually agreed to make the linkage. Now it is agreed by and between the parties with the following terms and conditions.

#### Terms and Conditions

1. The first party will extend their facilities to provide internship to the students in the area of "Software Development".
2. No rent nor any other incidental charges shall be paid by the second party for using the infrastructure facilities of the first party.
3. The second party may pay a nominal fee on demand as training fee to the first party.

For and behalf of

Institution	Signature	Department of Computer Science, Nirmala College, Muvattupuzha
Party	First Party	Second Party
Name	Sreejith M V	Arya S Nair
Designation	Manager – Signature	Course coordinator
Signature	 	 





YAS COMPLEX  
MUVATTUPUZHA

*Signature*  
THE SIGN OF KNOWLEDGE

Mob : +91 9605491491

PROJECT &  
DEVELOPMENT CENTER

Email:signaturemvpa@gmail.com

CERTIFICATE

- This is to certify that Mr "Aslam Muhammed" 3<sup>rd</sup> year student of "Nirmala College Muvattupuzha." has enrolled himself to undertake training for his main project entitled "Social Media for Travellers " in SIGNATURE study centre Muvattupuzha. During the course of this period signature would provide all necessary support in the completion of his project work.

DIRECTOR  
Signature Study Center  
Muvattupuzha - 686 673

Date: 02/12/2019

Hereby certified

Name: Sreejith MV



Signature Study Center  
Yas Complex, Nehru Park  
Muvattupuzha - 686 673  
Ph: 9995903275  
signaturemvpa@gmail.com





**Signature**  
THE SIGN OF KNOWLEDGE

Mob : +91 9605491491

**PROJECT &  
DEVELOPMENT CENTER**

Email:signaturemvpa@gmail.com

CERTIFICATE

This is to certify that Mr “Anandh Mohan” 3<sup>rd</sup> year student of “Nirmala College Muvattupuzha.” has enrolled himself to undertake training for his main project entitled "GST" in SIGNATURE study centre Muvattupuzha. During the course of this period signature would provide all necessary support in the completion of his project work.

Date: 02/12/2019

Director  
Signature Study Center  
Muvattupuzha - 686 673

Hereby certified

Name: Sreejith MV



Signature Study Center  
Yas Complex, Nehru Park  
Muvattupuzha - 686 673  
Ph: 9995903275  
signaturemvpa@gmail.com





YAS COMPLEX  
MUVATTUPUZHA

*Signature*  
THE SIGN OF KNOWLEDGE

Mob : 9656259686, 9995903275  
9995336269, 9605491491

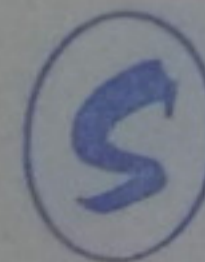
PROJECT &  
DEVELOPMENT CENTER

### CERTIFICATE

This is to certify that Mr **Rahul Raju** (Reg no: 1500021242973), student of **NIRMALA COLLEGE MUVATTUPUZHA** (BCA batch 2015-2018), is pursuing his live project work entitled **Ambulance and On Road Services** [php and Android] under the guidance of Mr. Ganesh Nadh since 17/12/2017.

Date: 9-12-2018

hereby signed



Signature Study Center  
Yas Complex, Nehru Park  
Muvattupuzha - 686 673  
Ph: 9995903275  
signaturemvpa@gmail.com

*[Signature]*  
DIRECTOR  
Signature Study Center  
Muvattupuzha - 686 673





YAS COMPLEX  
MUVATTUPUZHA

*Signature*  
THE SIGN OF KNOWLEDGE

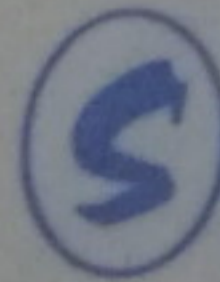
Mob : 9656259686, 9995903275  
9995336269, 9605491491

PROJECT &  
DEVELOPMENT CENTER

### CERTIFICATE

This is to certify that Mr **Mabin George** (Reg no: 1500021242960), student of **NIRMALA COLLEGE MUVATTUPUZHA** (BCA batch 2015-2018), is pursuing his live project work entitled **Movie Buzz** [php and Mysql] under the guidance of Mr. Ganesh Nadh since 17/12/2017.

Date: 3/02/2018



Signature Study Center  
Yas Complex, Nehru Park  
Muvattupuzha - 686 673  
Ph: 9995903275  
signaturemvpa@gmail.com

DIRECTOR  
Signature Study Center  
Muvattupuzha - 686 673

hereby signed





An ISO 9001 : 2015 Certified Organization



November 30, 2018

The Head of Department (BCA),  
Nirmala College,  
Muvattupuzha.

Dear Sir / Madam,

**Sub: Project confirmation for your Student**

We hereby confirm that **AJINSHA KARIM (REG NO: 160021112771)** 6<sup>th</sup> Semester BCA student of your college has been permitted to do an academic project using ASP.Net titled "**CONNECT KISSAN**" in our organization. The duration of the project is from December 2018 to March 2019.

We wish to thank you for giving us an opportunity to provide the service to your esteemed institution

For LCC Computer Education

Ramaswamy  
Director







An ISO 9001 : 2015 Certified Organization



November 30, 2018

The Head of Department (BCA),  
Nirmala College,  
Muvattupuzha.

Dear Sir / Madam,

**Sub: Project confirmation for your Student**

We hereby confirm that **AJITH GEORGE (REG NO: 160021112772)** 6<sup>th</sup> Semester BCA student of your college has been permitted to do an academic project using ASP.Net titled "ROOM SKETCHER – DESIGN YOUR HOME" in our organization. The duration of the project is from December 2018 to March 2019.

We wish to thank you for giving us an opportunity to provide the service to your esteemed institution

For LCC Computer Education

Ramaswamy  
Director







An ISO 9001 : 2015 Certified Organization



December 8, 2018

**The Head of Department (BCA),  
Nirmala College,  
Muvattupuzha.**

Dear Sir / Madam,

**Sub: Project confirmation for your Student**

We hereby confirm that **MIRASH MUHAMMED (REG NO: 160021112817)** 6<sup>th</sup> Semester BCA student of your college has been permitted to do an academic project using PHP in our organization. The duration of the project is from December 2018 to March 2019.

We wish to thank you for giving us an opportunity to provide the service to your esteemed institution

For LCC Computer Education

A handwritten signature in blue ink that reads 'Balaji'.

Balaji  
Director







An ISO 9001 : 2008 Certified Organization



November 24, 2017

**The Head of Department (BCA),  
Nirmala College,  
Muvattupuzha.**

Dear Sir / Madam,

**Sub: Project confirmation for your Student**

We hereby confirm that **ARUN THOMAS** 6<sup>th</sup> Semester BCA student of your college has been permitted to a 3 months academic project in ASP.Net at our organization.

We wish to thank you for giving us an opportunity to provide the service to your esteemed institution

For LCC Computer Education

**Ramaswamy  
Director**



11<sup>th</sup> Floor, Erumala Tower  
Opposite Ann Theatre  
Kothamanagalam, Kerala 686691  
8943734570  
proxsoftsolution@gmail.com  
www.proxsoftsolution.in



**PROXSOFT SOLUTIONS**

*MAKE IT SIMPLE. MAKE IT MEMORABLE*

## CERTIFICATE

This is to certify that the project entitled 'TV SHOW POPULARITY ANALYSIS', developed in PHP submitted by Mr. ASHIK BASHEER (160021112790) student of NIRMALA COLLEGE has joined our institution for his final year project of BCA.

**DIRECTOR**

**ELDHO VARGHESE**





11<sup>th</sup> Floor, Erumala Tower  
Opposite Ann Theatre,  
Kothamangalam, Kerala 686691  
8943734570  
proxsoftsolution@gmail.com  
www.proxsoftsolution.in



**PROXSOFT SOLUTIONS**

MAKE IT SIMPLE. MAKE IT MEMORABLE

## CERTIFICATE

This is to certify that the project entitled 'COLLEGE ALUMNI', developed in PHP submitted by Mr. AJITH SIVAN (160021112773) student of NIRMALA COLLEGE has joined our institution for his final year project of BCA.

**DIRECTOR**

**ELDHO VARGHESE**






Place: Thodupuzha

Date: 30-11-2018


### DECLARATION

This is to certify that *Ms. Faseela V B (Reg. 160021112803)*, Nirmala College Muvattupuzha, Batch (November 2018-March 2019) has joined at **Bright Future Educations, Thodupuzha** for the Final Project entitled “**Construction Company Management System**” from 30<sup>th</sup> November 2018, under the guidance of Mr. Jomit Joby, for the partial fulfilment of the requirements for the award of the degree of **Bachelor of Computer Applications (BCA)** during the academic year 2016-2019.

  
Guide in Charge

Mr. Jomit Joby



  
Centre Manager

Mrs. Jeen Maria Tom

**Bright Future Educations**  
2<sup>nd</sup> Floor, Matha Business Square  
Pvt. Bus Stand, Thodupuzha  
Ph: 9495852777, 9495852888




Place: Thodupuzha

Date: 30-11-2018

### DECLARATION

This is to certify that **MS. Roshna Shaji (Reg. 160021112823)**, Nirmala College Muvattupuzha, Batch (November 2018-March 2019) has joined at **Bright Future Educations, Thodupuzha** for the Final Project entitled “**Disaster Management System**” from 30<sup>th</sup> November 2018, under the guidance of Mr. Jomit Joby, for the partial fulfilment of the requirements for the award of the degree of **Bachelor of Computer Applications (BCA)** during the academic year 2016-2019.

  
Guide in Charge

Mr. Jomit Joby



Centre Manager

Mrs. Jeen Maria Tom

**Bright Future Educations**  
2<sup>nd</sup> Floor, Matha Business Square  
Pvt. Bus Stand, Thodupuzha  
Ph: 9495852777, 9495852888

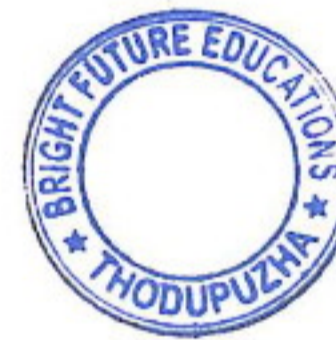


Place: Thodupuzha

Date: 30-11-2018

### DECLARATION

This is to certify that *Mr. Delvin Francis (Reg. 160021112800)*, Nirmala College Muvattupuzha, Batch (November 2018-March 2019) has joined at **Bright Future Educations, Thodupuzha** for the Final Project entitled "**Medi-Health**" from 30<sup>th</sup> November 2018, under the guidance of Mr. Jomit Joby, for the partial fulfilment of the requirements for the award of the degree of **Bachelor of Computer Applications (BCA)** during the academic year 2016-2019.



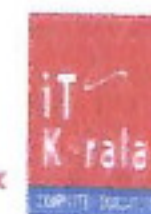
*Jomit*

Guide in Charge  
Mr. Jomit Joby

*Jeen*

Centre Manager  
Mrs. Jeen Maria Tom

**Bright Future Educations**  
2<sup>nd</sup> Floor, Matha Business Square  
Pvt. Bus Stand, Thodupuzha  
Ph: 9495852777, 9495852888







# G-TEC COMPUTER EDUCATION

(A Division of Glosoft Technologies Private Limited)

ISO 9001: 2000 CERTIFIED

Near St. George Hospital, P.O Junction, Muvattupuzha

Phone: +91-8943 343 653, +91-9846 544 423



Admn. Office : House of G-TEC, Calicut-2, Kerala, India

Corp. Office: Peace centre, Singapore 228149



## CERTIFICATE

This is to certify that *Mr. Vimal Vinod (Reg No: 160021112837)* has joined for doing their main project named "*RESIDUE MANAGEMENT SYSTEM*" in our **GTEC COMPUTER EDUCATION, MUVATTUPUZHA.**

Date: 30/11/2018

Place: Muvattupuzha

Jomon Joseph







# G-TEC COMPUTER EDUCATION

(A Division of Glosoft Technologies Private Limited)

ISO 9001: 2000 CERTIFIED

Near St. George Hospital, P.O Junction, Muvattupuzha

Phone: +91-8943 343 653, +91-9846 544 423



Admn. Office : House of G-TEC, Calicut-2, Kerala, India

Corp. Office: Peace centre, Singapore 228149

## CERTIFICATE

This is to certify that *Mr. Vishnu Biju (Reg No: 160021112838)* has joined for doing their main project named "*CAREER LAUNCHER*" in our GTEC COMPUTER EDUCATION, MUVATTUPUZHA.

Date: 30/11/2018

Place: Muvattupuzha

Jomon Joseph







**SOFT SOLUTIONS**  
NEAR ST.PETERS COLLEGE KOLENCHERY  
Ph: 980 980 8061, 949 635 0976

5-12-2018

TO WHOM IT MAY CONSERN

This is certified that the project entitled Human Resource Management  
Developed in ASP .NET submitted by **AnandhuAji(160021112782)** student of Nirmala College ,  
Muvattupuzha has joined our institution for final year project of BCA

For Orisez Soft. Solutions  
  
Managing Partner





**SOFT SOLUTIONS**  
NEAR ST.PETERS COLLEGE KOLENCHERY  
Ph: 980 980 8061, 949 635 0976

5-12-2018

TO WHOM IT MAY CONSERN

This is certified that the project entitled ..... Smart city .....  
Developed in ASP .NET submitted by **BharathMurali (160021112797)** student of Nirmala College ,  
Muvattupuzha has joined our institution for final year project of BCA

**For Orisez Soft. Solutions**  
  
**Managing Partner**




Ref. No.: CT/MVPZ/18-11/97

03 December 2018

**TO WHOM IT MAY CONCERN**

This is certified that the project entitled '**College Admission Predictor**', developed in PHP submitted by **Mr. Amal V R (Reg No:160021112779)** student of **Nirmaia College, Muvattupuzha** has joined our institution for his final year project of BCA

Yours Truly,  
For,  
Credence Technologies



**Harsha Haneefa**  
(Software Developer)

+91 8606837512 | 0485 2837512

**Credence Technologies**

Second Floor, Vettuvazhi Plaza, Near Grand Centre Mall, Muvattupuzha, Ernakulam  
info@credencetechnologies.in | www.credencetechnologies.in



06/01/2018

TO WHOM IT MAY CONCERN

To,

The Head of the Department  
Department of computer Application  
Nirmala College, Muvattupuzha

Sir,

We are glad to inform you that Mr. Amal Raju (Reg. no: 150021242930) studying BCA in your reputed college has been joined for doing his academic project in ASP.NET and Android under our organization under the guidance of Mr. SREEEJSH.S (PROJECT MANAGER).

For RISS TECHNOLOGIES

*Lebrin M*





**LINKAGE**

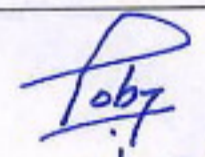

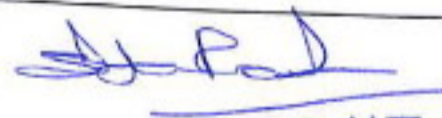

**DEPARTMENT OF COMPUTER SCIENCE, NIRMALA COLLEGE,  
MUVATTUPUZHA  
&  
M/S PROGRESSIVE SOFTWARE SOLUTIONS AND TRAINING  
TECH FLOOR, KOYAS TOWER  
P.O JUNCTION, MUVATTUPUZHA**

This linkage is signed between M/s Progressive Software Solutions and Training(First party) and Department of Computer Science (Second Party) for the academic year 2017-18. It is agreed by Department of Computer Science and M/s Progressive Software Solutions and Training to impart internship to the students in the field of "Application Software Development". Both the parties have discussed in detail the area of co-operation and mutually agreed to make the linkage. Now it is agreed by and between the parties with the following terms and conditions.

**Terms and Conditions**

1. The first party will extend their facilities to provide internship to the students in the area of "Application Software Development".
2. No rent or any other incidental charges shall be paid by the second party for using the infrastructure facilities of the first party.
3. The second party may pay a nominal fee on demand as training fee to the first party.

For and behalf of

Institution	M/s Progressive Software Solutions and Training, Tech floor, Koyas Tower P.O. Junction, Muvattupuzha	Department of Computer Science, Nirmala College, Muvattupuzha
Party	First Party	Second Party
Name	Toby Jose	P. Shija Paul
Designation	Centre Head – M/s Progressive Software Solutions and Training	Head of the Department
Signature	 17/07/17 	 17/07/17 






**LINKAGE**  
**DEPARTMENT OF MANAGEMENT STUDIES (TOURISM STUDIES),**  
**NIRMALA COLLEGE, MUVATTUPUZHA**  
**&**  
**KAIROS INSTITUTE, THODUPUZHA**

This linkage is signed between Kairos Training Institute and Department of Management Studies( Tourism Studies) for the academic year 2017-18. It is agreed by Department of Management Studies and Kairos Training Institute to impart internship to the students in the field of "TRAVEL AGENCY TRAINING". Both the parties have discussed in detail the area of co-operation and mutually agreed to make the linkage. Now it is agreed by and between the parties with the following terms and conditions.

**Terms and Conditions**

1. The first party will extend their facilities to provide internship to the students in the area of "TRAVEL AGENCY TRAINING".
2. No rent or any other incidental charges shall be paid by the second party for using the infrastructure facilities of the first party.
3. The second party may pay a nominal fee on demand as training fee to the first party.

For and behalf of

Institution	Kairos Training Institute, Thodupuzha	Department of Management Studies(Tourism Studies), Nirmala College, Muvattupuzha
Party	First Party	Second Party
Name	Mr. Jacob Mathew	Ms. Ancy John
Designation	CEO – Kairos Training Institute, Thodupuzha	Head of the Department
Signature	 	 Head of the Dept. Dept. of Tourism Studies Nirmala College, Muvattupuzha





**INSTITUTE FOR SOCIAL AND ECONOMIC CHANGE**

Dr V.K.R.V Rao Road, Nagarabhavi Post, BENGALURU-560 072.  
Registered under the Karnataka Societies Registration Act, 1960 (327/71-72)

FAX : 91-80-23217008,  
✉ : [chathukulam@isec.ac.in](mailto:chathukulam@isec.ac.in)  
URL : [www.isec.ac.in](http://www.isec.ac.in)  
☎ : 91-80-23215468(132)

Dr. Jos Chathukulam  
Professor  
Sri Ramakrishna Hegde Chair on Decentralization & Development



**Letter of Agreement between Sri. Ramakrishna Hedge Chair on Decentralization and Development, Institute for Social and Economic Change (ISEC), Bengaluru and Nirmala College, Muvattupuzha, Kerala.**

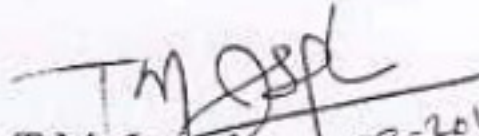
In having regard to the Talent Promotion in Rural Areas (TPRA) Programme of Sri. Ramakrishna Hedge Chair on Decentralization and Development, Institute for Social and Economic Change, Bengaluru (hereafter referred to as first party) in rural/ semi-urban areas in the country, the first party hereby enters into an agreement with Nirmala College, Muvattupuzha, Kerala (hereafter referred to as second party) for facilitating exposure visits to the faculty and students of the second party college in the premier educational institutions in Bengaluru City, with the following objectives, terms and conditions.

1. The TPRA Programme aims at moulding socially useful future citizens of India from the rural areas of the country by providing undergraduate students from such areas in Science, Social Science and Mathematics an opportunity to visit libraries/ laboratories and interact with the faculty and students in the premier institutions in the country and thus motivating the young minds to excel themselves in life.
2. The first party will facilitate exposure visits of the faculty and students of the second party college in premier educational institutions in Bengaluru city such as Indian Institute of Science, Indian Institute of Management, Institute for Social and Economic Change and Indian Statistical Institute on mutually agreeable dates.
3. The visiting team shall consist of not more than 50 undergraduate students of any stream/ streams from the second party college and one accompanying teacher each for a maximum of 10 students.
4. The Head of the second party college shall seek the permission of the Head of the first party institution at least two weeks prior to the commencing date of the visit for such purpose.
5. The duration of visit at one spell shall not exceed five working days in Bengaluru city.

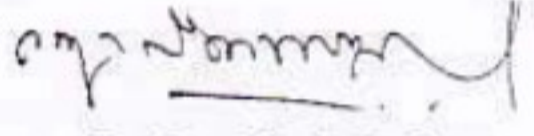


6. The first party institute shall co-ordinate the logistics of the second party college team in the intended institutions.
7. The first party institute shall arrange boarding and lodging facilities for the second party college team at their own expenses, if they so desire.
8. There shall not be any financial commitment on the first party institute on account of this agreement.
9. This agreement is valid for a period of three years which can be extended on renewal of the agreement by both the parties.

Signed on 16<sup>th</sup> day of March 2017 between the representatives of the two parties.

  
Dr. T.M. Joseph  
Principal  
Nirmala College  
Muvattupuzha  
Kerala - 686 661  
(SECOND PARTY)

16/03-2017  
Dr. T.M. Joseph  
Principal  
NIRMALA COLLEGE  
MUVATTUPUZHA

  
Dr. Jos Chathukulam  
Chair Professor & Head  
Ramakrishna Hedge Chair  
Institute for Social and  
Economic Change  
Bengaluru- 560 072  
(FIRST PARTY)





**L2L**

***Lecture to Lab Series 2018***



**X-Ray Diffraction**

Powder and Single Crystal Analysis



**Analytical Spectroscopy**

UV-Vis - NIR - Mid IR



**NMR Spectroscopy**

NMR and Mass Analysis



**Electron Microscopy**

Scanning and Transmission



**Elemental Analysis**

Ultimate and Heavy metals



**Thermal Analysis**

TGA and DSC



## Course Outline

L2L Series includes Theory Session and laboratory demonstrations of Following Analytical Methods

- X-Ray Diffraction
- Electron Microscopy ( Scanning and Transmission)
- Spectroscopy (UV Vis NIR & Mid IR)
- Thermal Analysis (Thermo Gravimetry and Differential Scanning Calorimetry)
- Nuclear Magnetic Resonance and Mass Spectroscopy
- Elemental Analysis (Ultimate and Heavy Metal analysis)

## Mode & Duration

### Short Theory Sessions

Time	9.30 -10.30 AM	11.45- 12.30	2.30-3.30 PM
Day I	X-Ray Diffraction	Analytical Spectroscopy	Electron Microscopy
Day II	Thermal Analysis	NMR and Mass Spectrometry	Elemental Analysis

### Laboratory Sessions

Time	10.30 -11.30 AM	1.30-2.30 PM	3.30 – 4.30 PM
Day I	X-Ray Diffraction	Analytical Spectroscopy	Electron Microscopy
Day II	Thermal Analysis	NMR and Mass Spectrometry	Elemental Analysis



## Registration: Terms & Conditions

All applicants must complete the application form.

This is not a training course. This program envisages to create an awareness among graduates/postgraduates and research students on use of sophisticated analytical instruments. Persons from industries, teachers under FIP/TIP and other schemes are not permitted.

Hands own training may not be possible. But elaborate laboratory demonstration by expert technical persons will be available.

Each analytical facilities covered under the programme is a massive subject hence detailing in every aspects may not be possible in a short span.

### Programme fee

Rs. 500 per student GST extra @18% Number of students permitted each time minimum 15 maximum 30

No course materials or refreshments will be provided. Students are permitted to carry lunch with them.

Please note that it is often difficult for us to find someone to fill your seat. You will not incur a refund but you can find a substitute to take your place.

We have done our best to create a favorable environment for teaching and learning. There is plenty of time for questions and discussions during each course.



## INTRODUCTION

The need of precise, accurate and reliable analytical data has become relevant as the regulatory agencies scrutinize every aspect in industries, medicine and environmental monitoring. In Research and development the application of a precise and accurate analytical instrument plays a vital role. The choice of an instrument for a specific application is crucial. Good working knowledge of the available technique and equipment is necessary. The technology is getting smart, fast and small day by day. This attempt is to familiarize the fundamentals, basic instrumentation, operation and analysis using instruments available at SAIF Laboratory STIC

Analytical Techniques can be divided into three broad categories given below which can be applied to Fundamental research, Quality Control, Product testing, Medical and Clinical Testing, Environmental Monitoring etc.

### 1. Qualitative analysis

Identifying one or more species present in a material.

### 2. Quantitative analysis

Determining the amount of a species present in a material.

### 3. Structure Determination

Finding the spatial arrangement of atoms in a molecule

The scope of this short note includes the following Analytical Techniques

### 1. Analytical Spectroscopy

Fourier Transform Infrared Spectroscopy

UV-Vis NIR Spectroscopy

### 2. Thermal Analysis

Thermo gravimetric Analysis

Differential Scanning Calorimetry

### 3. X-Ray Diffraction

X-Ray Powder Diffraction

X-Ray Single Crystal structure determination

### 4. Electron Microscopy



Scanning Electron Microscopy

Transmission Electron Microscopy

#### 5. Elemental analysis

Atomic Emission Spectrometry

Ultimate Analysis (CHNS)

Cold Vapour Atomic Absorption Spectrometer

#### 6. NMR and Mass Spectroscopy

##### 1. Analytical Spectroscopy

Spectroscopy is the study of the interaction of electromagnetic radiation with matter.

The electromagnetic radiation may be anywhere from very high energy gamma rays to low frequency radio waves.

The nature of the interaction depends upon the frequency or energy of the electromagnetic radiation and also on the properties of the matter.

The distribution of energy possessed by a molecule at any given moment, defined as the sum of the contributing energy terms

$$E_{total} = E_{electronic} + E_{vibrational} + E_{rotational} + E_{translational}$$

The translational energy relates to the displacement of molecules in space as a function of the normal thermal motions of matter. Rotational energy, is observed as the tumbling motion of a molecule, which is the result of the absorption of energy within the microwave region.

The vibrational energy component is a higher energy term and corresponds to the absorption of energy by a molecule as the component atoms vibrate about the mean center of their chemical bonds.

The electronic component is linked to the energy transitions of electrons as they are distributed throughout the molecule, either localized within specific bonds, or delocalized over structures, such as an aromatic ring. In order to observe such electronic transitions, it is necessary to apply energy in the form of visible and ultraviolet radiation (190nm to 3000nm) The infrared regions are classified as follows:

Near Infrared 12,500 to 4,000  $\text{cm}^{-1}$



(0.8 to 2.5  $\mu\text{m}$ )

Mid Infrared 4,500 to 400  $\text{cm}^{-1}$

(2.5 to 50  $\mu\text{m}$ )

Far Infrared 400 to 12.5  $\text{cm}^{-1}$

(50 to 800  $\mu\text{m}$ )

## 2. Electron Microscopy

Most microscopes can be classified as one of three basic types: optical, charged particle (electron and ion), or scanning probe. Optical microscopes use visible light and transparent lenses to see objects as small as about one micrometer (one millionth of a meter), such as a red blood cell (7  $\mu\text{m}$ ) or a human hair (100  $\mu\text{m}$ ). Electron and ion microscopes, use a beam of charged particles instead of light, and use electromagnetic or electrostatic lenses to focus the particles. They can see features as small a tenth of a nanometer (one ten billionth of a meter), such as individual atoms. Scanning probe microscopes use a physical probe (a very small, very sharp needle) which scan over the sample in contact or near-contact with the surface. They map various forces and interactions that occur between the probe and the sample to create an image. These instruments too are capable of atomic scale resolution

## 3. X-Ray Diffraction

Solid matter can be described as:

*Amorphous:* The atoms are arranged in a random way similar to the disorder we find in a liquid. Glasses are amorphous materials.

*Crystalline:* The atoms are arranged in a regular pattern, and there is a smallest volume element that by repetition in three dimensions describes the crystal. E.g. we can describe a brick wall by the shape and orientation of a single brick. This smallest volume element is called a unit cell. The dimensions of the unit cell is described by three axes: a, b, c and the angles between them alpha, beta, gamma.

About 95% of all solids can be described as crystalline. An electron in an alternating electromagnetic field will oscillate with the same frequency as the field. When an x-ray beam hits an atom, the electrons around the atom start to oscillate with the same frequency as the incoming beam. In almost all directions we will have destructive interference, that is, the combining waves are out of phase and there is no resultant



energy leaving the solid sample. However the atoms in a crystal are arranged in a regular pattern, and in a very few directions we will have constructive interference. The waves will be in phase and there will be well defined x-ray beams leaving the sample at various directions. Hence, a diffracted beam may be described as a beam composed of a large number of scattered rays mutually reinforcing one another. X-Rays can be used as an analytical tool to see through a molecule since the wavelength of X-rays is compatible with inter atomic distances in a molecule.

#### 4. Thermal Analysis

When sample of mass  $m$  is heated, the sample receives energy. In consequence, the state of the sample might change. Either a phase transition occurs or the internal energy changes. If the internal energy changes without a phase transition, the received quantity of heat,  $\delta q$ , is proportional to the temperature increase,  $\delta T$ :

$$\delta q = mC \delta T, \quad C = \text{specific heat capacity}$$

The heat capacity depends on the conditions under which the system is treated. If the heat transfer is measured at constant volume, the heat capacity is defined as  $C_V$ . If the heat capacity is measured at constant pressure, the heat capacity is defined as  $C_p$ .

#### Thermo Gravimetric Analysis (TGA)

A technique whereby the weight of a substance, in an environment heated or cooled at a controlled rate, is recorded as a function of time or temperature. Thus, the data obtained from a TG experiment are displayed as a thermal curve with an ordinate display having units of weight (or weight percent) and the abscissa may be in units of either temperature or time.

In TG studies, mass loss is read directly in units of weight percent of the original sample quantity. The results from thermogravimetric analysis may be presented by (1) mass versus temperature (or time) curves, referred to as Thermogravimetric curve, or (2) rate of mass loss versus temperature curve, referred to as Derivative Thermogravimetric (DTG). The results of a TG experiment may be used, in many cases, as "compositional analysis". Measurements of changes in sample mass with temperature are made using a thermobalance. Thermogravimetric analysis relies on high degree of precision in three measurements: mass change, temperature, and temperature change.



### Differential scanning calorimetry

Differential scanning calorimetry (DSC) monitors heat effects associated with phase transitions and chemical reactions as a function of temperature. In a DSC the difference in heat flow to the sample and a reference at the same temperature, is recorded as a function of temperature. The sample is sealed in an aluminum pan. The reference is an inert material such as alumina, or just an empty aluminum pan. The temperature of both the sample and reference are increased at a constant rate. Since the DSC is at constant pressure, heat flow is equivalent to enthalpy changes:

$$\frac{dq_p}{dt} = \frac{dH}{dt}$$

### 5. Elemental Analysis

CHNS elemental analysers have been used in analytical laboratories for over thirty years. The method is used extensively across a wide range of applications, including pharmaceuticals, chemicals, oil-related products, catalysts and food. In the oil industry, an important application is the regular monitoring of coke build-up on refinery catalysts to ensure that regeneration procedures (involving controlled burning of the carbon) are executed at optimal intervals. Since many of these catalyst systems involve large quantities of noble metals such as platinum, palladium and rhenium, mismanagement of this testing would entail serious financial losses. In food analysis, the determination of nitrogen (as a surrogate for protein) is very important for pricing grain and evaluating meat products, and is increasingly undertaken by combustion analysis.

Heavy metal detection is done mainly using AAS, ICP-AES, Flame Ionization, and ICP-MS methods. The operation of an ICP-AES system relies upon the same interaction of molecules with electromagnetic radiation. In a flame-based system, not all of the atoms or elements present in the sample are excited, particularly if they exist in a polyatomic compound. Some elements readily form non-emitting and refractory oxides that result in an underestimation of their concentration. In plasma-based systems the temperature is considerably hotter (~6000 to 10 000 K) that results in more effective excitation of atoms (generally greater than 90%) of approximately 60 elements including some non metals. This intense heat prevents polyatomic species from forming, thus increasing the detection limits for many elements

### 6. NMR Spectroscopy

Nuclei with an odd mass or odd atomic number have "nuclear spin" (in a similar fashion to the spin of electrons). This includes <sup>1</sup>H and <sup>13</sup>C (but not <sup>12</sup>C). The spins of nuclei



are sufficiently different that NMR experiments can be sensitive for only one particular isotope of one particular element. Since a nucleus is a charged particle in motion, it will develop a magnetic field.  $^1\text{H}$  and  $^{13}\text{C}$  have nuclear spins of  $1/2$  and so they behave in a similar fashion to a simple, tiny bar magnet. In the absence of a magnetic field, these are randomly oriented but when a field is applied they line up parallel to the applied field, either spin aligned or spin opposed. The more highly populated state is the lower energy spin state spin aligned situation

Structural factors cause changes in the magnetic field experienced by the nucleus. this changes the resonance frequency and hence the chemical shift. The structural factors mean that different types of proton will occur at different chemical shifts. This is what makes NMR so useful for structure determination.



## CERTIFICATE OF PARTICIPATION

Date: 17-03-2018

This is to certify that 20 numbers of B.Sc. Chemistry I Year Students of Nirmala College Muvattupuzha, attended L2L (Lecture to Lab Series) training programme at STIC during the period 16-17, March 2017. The programme comprises of lectures and laboratory demonstration on following Analytical Techniques

(i) X-Ray Diffraction (ii) Spectroscopy (iii) NMR Spectroscopy (iv) Thermal Analysis  
(v) Elemental Analysis and (vi) Microscopy

Sincerely



Dr. Shibu M Eappen

Scientist E1

Course Coordinator



### STIC

SOPHISTICATED TEST & INSTRUMENTATION CENTRE  
*(An autonomous Institution established by the Govt. of Kerala in collaboration with Cochin University of Science & Technology)*

Kochi University P.O., Kochi - 682 022, Kerala, India  
Tel.: +91 484 2575908, 2576697 Fax: +91 484 2576699  
e-mail: stic@vsnl.com, ets@sticindia.com Web site: www.sticindia.com





**International and Interuniversity  
Centre for Nanoscience and Nanotechnology  
Mahatma Gandhi University  
Priyadarshini Hills  
Kottayam-686 560, Kerala, India**

*Telephone: 91-9447223452 (Mobile), 91-481-2730003 (Office)*

*E-mail: sabuthomas@mgu.ac.in*

*Prof. Dr. SABU THOMAS PhD, FRSC*  
Founder Director & Professor

*03<sup>rd</sup> June 2019*

63/2019

**CERTIFICATE**

This is to certify that the project report entitled "**ELECTROSPUN TiO<sub>2</sub> COMPOSITE FIBRES FOR DYE DEGRADATION**" is an authentic record of the work carried out by **SIMIMOL SUNNY** (Reg No:170011001090) from **NIRMALA COLLEGE, MUVATTUPUZHA** under my guidance and supervision at the **International and Inter University Centre for Nanoscience and Nanotechnology, Mahatma Gandhi University, Kottayam, Kerala** in partial fulfilment of the requirements for the award of the degree of Master of Science in Chemistry from Mahatma Gandhi University, Kerala

**Prof. Sabu Thomas**



# **MnO<sub>2</sub> NANOPARTICLES SYNTHESIS AND PROPERTIES**

*A dissertation submitted to Mahatma Gandhi University, Kottayam in partial  
fulfilment for the degree of*

**MASTER OF SCIENCE IN CHEMISTRY**

By,

**MABLE MARIA BABY**

**Reg. No: 170011001087**

**NIRMALA COLLEGE, MUVATTUPUZHA**



Under the guidance of

**Dr. SABU THOMAS**

**INTERNATIONAL AND INTER UNIVERSITY CENTRE FOR NANOSCIENCE  
AND NANOTECHNOLOGY**

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**







**International and Interuniversity  
Centre for Nanoscience and Nanotechnology  
Mahatma Gandhi University  
Priyadarshini Hills  
Kottayam-686 560, Kerala, India**

Telephone: 91-9447223452 (Mobile), 91-481-2730003 (Office)

E-mail: sabuthomas@mgu.ac.in

Prof. Dr. SABU THOMAS PhD, FRSC  
Founder Director & Professor

03<sup>rd</sup> June 2019

60/2019

**CERTIFICATE**

This is to certify that the project report entitled “ **MnO<sub>2</sub> NANOPARTICLES SYNTHESIS AND PROPERTIES**” is an authentic record of the work carried out by **MABLE MARIA BABY**(Reg No:170011001087) from **NIRMALA COLLEGE, MUVATTUPUZHA** under my guidance and supervision at the **International and Inter University Centre for Nanoscience and Nanotechnology, Mahatma Gandhi University, Kottayam , Kerala** in partial fulfilment of the requirements for the award of the degree of Master of Science in Chemistry from Mahatma Gandhi University, Kerala

**Prof.Sabu Thomas**





INTERNATIONAL AND INTER UNIVERSITY  
CENTRE FOR NANOSCIENCE AND NANOTECHNOLOGY  
MAHATMA GANDHI UNIVERSITY  
Priyadarshini Hills, Kottayam-686560  
Kerala, India

Prof. Sabu Thomas  
Director

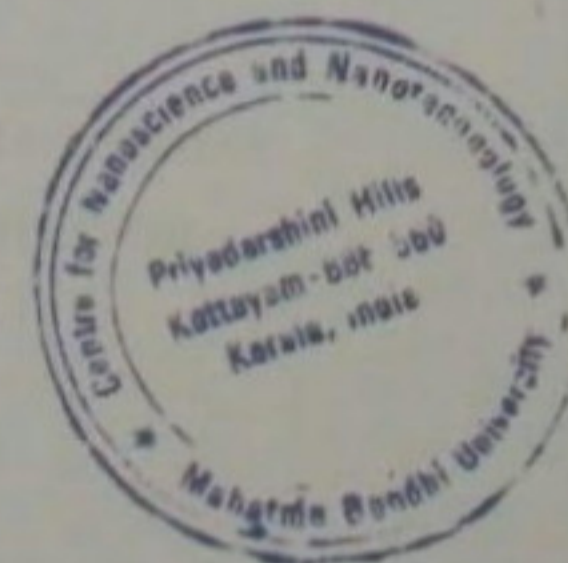
Phone) Per: +91-481- 2730003, 2731036  
Mobile:+91 9447223452  
Fax: +91-481-2731002  
Email: sabuchathukulam@yahoo.uk

7<sup>th</sup> June 2017

### CERTIFICATE

This is to certify that the project entitled "**An Inexpensive And Ecofriendly Method For Removal Of Fluoride Ions From Water Using Chitin**" is an authentic record of the lab work carried out by **Ms. Ann Mary Roy, M.Sc Chemistry student of Nirmala College, Muvattupuzha, Ernakulam** under my supervision and guidance in partial fulfilment of the requirements as a part of their curriculum at International and Inter University Center for Nanoscience and Nanotechnology of Mahatma Gandhi University, Kottayam, for the award of the degree of Master of Science in Chemistry.

Sabu Thomas







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मुख्यालय / Head Office  
उद्योगमंडल / Udyogamandal - 683 501

दूरभाष / Phone : 0484 - 2567583, 2556750, 2559621,  
2567423, 2567380, 2567467, 2567424, 2567798  
ई-मेल / Email : mdc@factltd.com

DGM(TRG)-CERT-PW/276/2016

17.04.2017

### CERTIFICATE

Certified that **Mr. ANIL VARGHESE** ,  
**MHRM** student of **Nirmala College, Muvattupuzha**, has  
successfully completed his one month Project work titled  
“**A STUDY ON EFFECTIVENESS OF PERFORMACE  
APPRAISAL**” in **FACT Ltd., Udyogamandal**, during  
March - April 2017.

M S Venugopal  
DGM (Trg & Dev)



पंजीकृत कार्यालय : एलूर, उद्योगमंडल  
Regd. Office: Eloor, Udyogamandal





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मुख्यालय / Head Office  
उद्योगमंडल / Udyogamandal - 683 501

दूरभाष / Phone : 0484 - 2567583, 2556750, 2559621,  
2567423, 2567380, 2567467, 2567424, 2567798  
ई-मेल / Email : mdc@factltd.com

DGM(TRG)-CERT-PW/275/2017

17.04.2017

### CERTIFICATE

Certified that **Mr. TONY RAJU VARGHESE**,  
**MHRM** student of Nirmala College, Muvattupuzha, has  
successfully completed his one month Project Work titled  
“**A STUDY ON QUALITY OF WORK LIFE OF  
EMPLOYEES**” in **FACT Ltd.,Udyogamandal.**, during  
March - April 2017.

M S Venugopal  
DGM (Trg & Dev)



पंजीकृत कार्यालय : एलूर, उद्योगमंडल  
Regd. Office: Eloor, Udyogamandal





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मुख्यालय / Head Office  
उद्योगमंडल / Udyogamandal - 683 501

दूरभाष / Phone : 0484 - 2567583, 2556750, 2559621,  
2567423, 2567380, 2567467, 2567424, 2567798  
ई-मेल / Email : mdc@factld.com

DGM (TRG)-CERT-PW/532/2016

14.07.2017

## CERTIFICATE

Certified that Ms. AYANA SANKAR P S, M.Sc  
(Chemistry) student of Nirmala College, Muvattupuzha, has  
successfully completed her Project Work Titled "QUALITY  
ANALYSIS OF PHOSPHORIC ACID" in FACT Ltd.,  
Cochin Division, during the period from 11<sup>th</sup> May 2016 to 10<sup>th</sup>  
June 2016.

*M. Velumani*  
M. Velumani 14/7/17  
Sr. Manager (Trg)



पंजीकृत कार्यालय : एलूर, उद्योगमंडल  
Regd. Office: Eloor, Udyogamandal





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मुख्यालय / Head Office  
उद्योगमंडल / Udyogamandal - 683 501

दूरभाष / Phone : 0484 - 2567583, 2556750, 2559621,  
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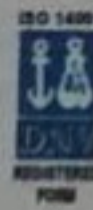
DGM (TRG)-CERT-PW/533/2016

14.07.2017

## CERTIFICATE

Certified that **Ms. PRIYANKA WILSON, M.Sc (Chemistry)** student of Nirmala College, Muvattupuzha, has successfully completed her Project Work Titled **“QUALITY ANALYSIS OF GYPSUM”** in **FACT Ltd., Cochin** Division, during the period from 11<sup>th</sup> May 2016 to 10<sup>th</sup> June 2016.

*M. Velumani*  
M. Velumani 14/7/17  
Sr. Manager (Trg)



पंजीकृत कार्यालय : एलूर, उद्योगमंडल  
Regd. Office: Eloor, Udyogamandal



TO WHOMSOEVER IT MAY CONCERN

FROM,  
COGNIZ INFO TECH  
PALARIVATTOM, KOCHI

TO,  
HEAD OF THE DEPARTMENT  
NIRMALA COLLEGE, MUVATTUPUZHA

Dear Sir / Madam

With due respect I would like to inform you that Hajara C. Iqbal 6<sup>th</sup> Semester, Degree BCA students of Nirmala College, Muvattupuzha, has joined in our firm Cogniz Info Tech on 4<sup>th</sup> NOV 2017 for the successful completion of the Academic Project ( Major ) in PHP.

COGNIZ INFO TECH, is an emerging global leader in IT learning services and professional Development solutions. We deliver learning solutions to support customers as they adapt to key business transformations and technological advancements that drive the way that organizations around the world differentiate themselves and thrive.

We are with federation of brands engaged in information Technology, focused in 3 different streams, such as: SOFTWARE, HARDWARE AND NETWORKING, and AUTOCAD. We pride ourselves in providing a world class service through our highly experienced and professional team. We have built a long established reputation and forged strong lasting business relationships on the principles of trust and though our investment in people and ethical business practices.

OUR SERVICES

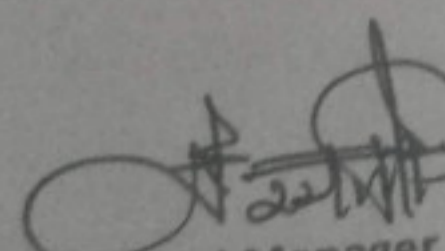
- ❖ CORPORATE TRAINING
- ❖ SOFTWARE DEVELOPMENTS
- ❖ INDUSTRIAL TRAINING

- ❖ ADD- ON COURSES
- ❖ COMPANY INTERNSHIPS
- ❖ ACADEMIC & LIVE PROJECTS
- ❖ PLACEMENTS

For further Details: [www.cognizinfotech.com](http://www.cognizinfotech.com), [info@cognizinfotech.com](mailto:info@cognizinfotech.com)  
Training Partner : CIT COMPUTER EDUCATION. [[www.citeduhub.com](http://www.citeduhub.com)]



Yours Sincerely,

  
General Manager  
Cogniz Info Tech



22-11-2016  
Kochi



Drive Business  
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ISO 9001 : 2015

Approved by STED Council  
NCT New Delhi, Govt. of India

**COGNIZ INFO TECH**  
1st Floor, Tee Jay Estate  
Palarivattom Jn.  
Kochi - 682025

TO WHOMSOEVER IT MAY CONCERN

FROM,  
COGNIZ INFO TECH  
PALARIVATTOM, KOCHI

TO,  
HEAD OF THE DEPARTMENT  
NIRMALA COLLEGE, MUVATTUPUZHA

Dear Sir / Madam

With due respect I would like to inform you that **Athira P.V** 6<sup>th</sup> Semester, Degree BCA students of **Nirmala College**, Muvattupuzha, has joined in our firm **Cogniz Info Tech** on 4<sup>th</sup> NOV 2017 for the successful completion of the **Academic Project ( Major )** in PHP.

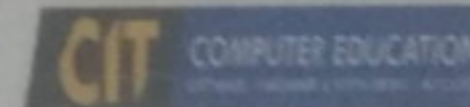
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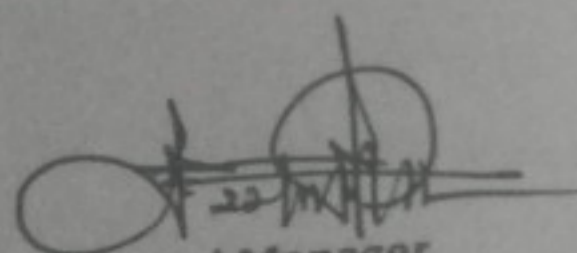
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Yours Sincerely,

  
General Manager  
Cogniz Info Tech



22-11-2016  
Kochi



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NCT New Delhi, Govt. of India

**COGNIZ INFO TECH**  
1st Floor, The Jay Estate  
Palarivattom Jn.  
Kochi - 682025

TO WHOMSOEVER IT MAY CONCERN

FROM,  
COGNIZ INFO TECH  
PALARIVATTOM, KOCHI

TO,  
HEAD OF THE DEPARTMENT  
NIRMALA COLLEGE, MUVATTUPUZHA

Dear Sir / Madam

With due respect I would like to inform you that **Maneesha Mohan** 6<sup>th</sup> Semester, Degree BCA students of **Nirmala College**, Muvattupuzha, has joined in our firm **Cogniz Info Tech** on 4<sup>th</sup> NOV 2017 for the successful completion of the **Academic Project ( Major )** in JAVA.

COGNIZ INFO TECH, is an emerging global leader in IT learning services and professional Development solutions. We deliver learning solutions to support customers as they adapt to key business transformations and technological advancements that drive the way that organizations around the world differentiate themselves and thrive.

We are with federation of brands engaged in information Technology, focused in 3 different streams, such as: SOFTWARE, HARDWARE AND NETWORKING, and AUTOCAD. We pride ourselves in providing a world class service through our highly experienced and professional team. We have built a long established reputation and forged strong lasting business relationships on the principles of trust and though our investment in people and ethical business practices.

OUR SERVICES

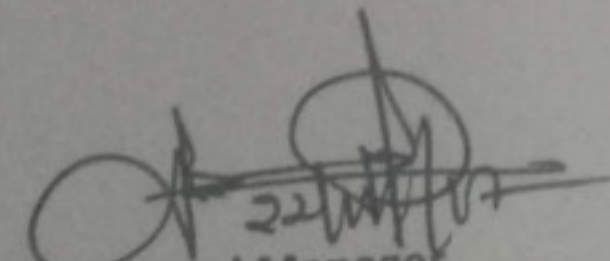
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**CIT** COMPUTER EDUCATION  
www.citeduhub.com

Yours Sincerely,

  
General Manager  
Cogniz Info Tech



22-11-2016  
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**COGNIZ INFO TECH**  
1st Floor, Tee Jay Estate  
Palarivattom Jn.  
Kochi - 682025

TO WHOMSOEVER IT MAY CONCERN

FROM,  
COGNIZ INFO TECH  
PALARIVATTOM, KOCHI

TO,  
HEAD OF THE DEPARTMENT  
NIRMALA COLLEGE, MUVATTUPUZHA

Dear Sir / Madam

With due respect I would like to inform you that **Arya Sasidharan** 6<sup>th</sup> Semester, Degree BCA students of **Nirmala College**, Muvattupuzha, has joined in our firm **Cogniz Info Tech** on 4<sup>th</sup> NOV 2017 for the successful completion of the **Academic Project** ( Major ) in PHP.

COGNIZ INFO TECH, is an emerging global leader in IT learning services and professional Development solutions. We deliver learning solutions to support customers as they adapt to key business transformations and technological advancements that drive the way that organizations around the world differentiate themselves and thrive.

We are with federation of brands engaged in information Technology, focused in 3 different streams, such as: SOFTWARE, HARDWARE AND NETWORKING, and AUTOCAD. We pride ourselves in providing a world class service through our highly experienced and professional team. We have built a long established reputation and forged strong lasting business relationships on the principles of trust and though our investment in people and ethical business practices.

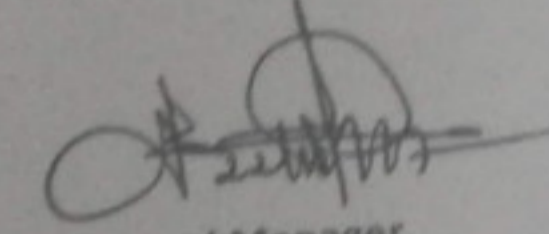
OUR SERVICES

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Yours Sincerely,

  
General Manager  
Cogniz Info Tech



22-11-2016  
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**COGNIZ INFO TECH**  
1st Floor, Tee Jay Estate  
Palarivattom Jn.  
Kochi - 682025

TO WHOMSOEVER IT MAY CONCERN

FROM,  
COGNIZ INFO TECH  
PALARIVATTOM, KOCHI

TO,  
HEAD OF THE DEPARTMENT  
NIRMALA COLLEGE, MUVATTUPUZHA

Dear Sir / Madam

With due respect I would like to inform you that Final Year BCA students **Mariya Siby** (150021242964), **Deepamol Y** ( 150021242945 ), of Nirmala College, Muvattupuzha, has joined for their project at **Cogniz Info Tech**.

COGNIZ INFO TECH, is an emerging global leader in IT learning services and professional Software Development solutions. We deliver entire solutions to support customers as they adapt to key business transformations and technological advancements that drive the way that organizations around the world differentiate themselves and thrive.

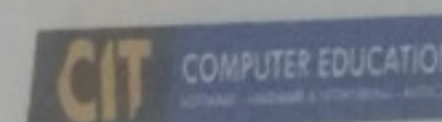
We are with federation of brands engaged in Information Technology, focused in 3 different streams, such as: SOFTWARE, HARDWARE AND NETWORKING, and AUTOCAD. We pride ourselves in providing a world class service through our highly experienced and professional team. We have built a long established reputation and forged strong lasting business relationships on the principles of trust and though our investment in people and ethical business practices.

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Training Partner : CIT COMPUTER EDUCATION. [[www.citeduhub.com](http://www.citeduhub.com)]



Yours Sincerely,

HR Manager  
Cogniz Info Tech



12-02-2018  
Kochi





# St. Alphonsa College

## TO WHOM IT MAY CONCERN

This is to certify that **Mr. Ajay Krishnan (Reg No.150021242924)**, student of **Nirmala College, Muvattupuzha** has done his Final Semester project in our organization **St-Alphonsa College, Thodupuzha** from **01-12-2017** to **01-03-2018**. During this period, he will be treated as a "Student" of our college. Upon successful completion of the project class, he will be submitting the complete project.

We wish best of luck on completion of his project with us.

With best regards,

**Mr. George PM**

**Principal**

**St Alphonsa College, Thodupuzha**







# St. Alphonsa College

## TO WHOM IT MAY CONCERN

This is to certify that **Miss. Mumthaz MJ (Reg No: 150021242969)**, student of **Nirmala College, Muvattupuzha** has done her Final Semester project **House Hold Vanitha Co-Operative Society** in our organization **St-Alphonsa College, Thodupuzha** from **01-12-2017 to 01-03-2018**. During this period, she will be treated as a "Student" of our college. Upon successful completion of the project class, she will be submitting the complete project.

We wish best of luck on completion of her project with us.

With best regards,

**Mr. George PM**

**Principal**

**St Alphonsa College, Thodupuzha**







# St. Alphonsa College

## TO WHOM IT MAY CONCERN

This is to certify that **Mr. Aravind Mohanan**(Reg No.150021242934), student of **Nirmala College, Muvattupuzha** has done his Final Semester project in our organization **St-Alphonsa College, Thodupuzha** from **01-12-2017** to **01-03-2018**. During this period, he will be treated as a "Student" of our college. Upon successful completion of the project class, he will be submitting the complete project.

We wish best of luck on completion of his project with us.

With best regards,

**Mr. George PM**

**Principal**

**St Alphonsa College, Thodupuzha**





To

The Nirmala College of Arts & Science  
Department of Computer Science  
Muvattupuzha

**Subject: BCA students Academic Project**

Dear Sir/Madam

This is to certify that **Ms. Jossy Jose (BCA-2015)** 6<sup>th</sup> Semester BCA student of Nirmala College, Muvattupuzha has joined for academic project in PHP for the partial fulfilment of the requirements for the award of the degree in **Bachelor of Computer Application** under the guidance of Mrs. Ciji Sebastian .

This is for your kind information.

*M. C. Mereena*

Mereena Johnson  
HR Manager



REF:TR/F0053/2018  
Issued on the day 7 March 2018



To

The Nirmala College of Arts & Science  
Department of Computer Science  
Muvattupuzha

**Subject: BCA students Academic Project**

Dear Sir/Madam

This is to certify that **Ms. Athira Sasi (BCA-2015)** 6<sup>th</sup> Semester BCA student of Nirmala College, Muvattupuzha has joined for academic project in PHP for the partial fulfilment of the requirements for the award of the degree in **Bachelor of Computer Application** under the guidance of Mr. Abin George .

This is for your kind information.

*M. K. Mereena*

Mereena Johnson  
HR Manager



REF:TR/F0054/2018  
Issued on the day 7 March 2018



To

The Nirmala College of Arts & Science  
Department of Computer Science  
Muvattupuzha

**Subject: BCA students Academic Project**

Dear Sir/Madam

This is to certify that Mr. Don Sabu (BCA-2015) 6<sup>th</sup> Semester BCA student of Nirmala College, Muvattupuzha has joined for academic project in .Net for the partial fulfilment of the requirements for the award of the degree in **Bachelor of Computer Application** under the guidance of Mrs. Shinie Mathew.

This is for your kind information.

M. C. Mereena

Mereena Johnson  
HR Manager

REF:TR/F0048/2018

Issued on the 11<sup>th</sup> of January 2018





25/11/16



**नारियल विकास बोर्ड**  
(कृषि एवं किसान कल्याण मंत्रालय, भारत सरकार), केरा भवन,  
कोची - 682 011, भारत  
**COCONUT DEVELOPMENT BOARD**  
(Ministry of Agriculture, & Farmers Welfare, Government of India)  
Kera Bhavan, SRVHS Road, Kochi - 682 011, India  
Email: cdbkochi@dataone.in, Web: www.coconutboard.gov.in

फैक्स Fax : 91-484-2377902  
टेलिग्राम Telegram: KERABOARD  
दूरभाष Telephones  
अध्यक्ष Chairman : 2375216  
मू.ना.वि.अ. CCDO : 2375899  
निदेशक Director : 2375237  
सचिव Secretary : 2377737  
कार्यालय Office : 2376265  
2376553  
2377267

F.No: 1598/2016- Stat

Date: 21/11/2016

To  
The Principal  
Nirmala College  
Muvattupuzha,  
Ernakulam- 686 661

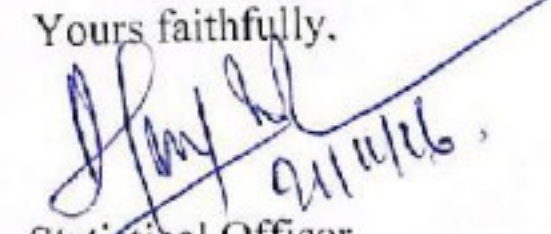
Sub: Statistical survey on concurrent estimation on production and productivity of coconut in Idukki district for the year 2016-17

Sir,

Thank You for associating with the Coconut Development Board for conducting coconut production estimation survey for 2016-17 in Idukki district. Copy of the MoU is forwarded herewith. You shall be intimated through email once the fund is transferred.

Encl : As above

Yours faithfully,

  
Statistical Officer

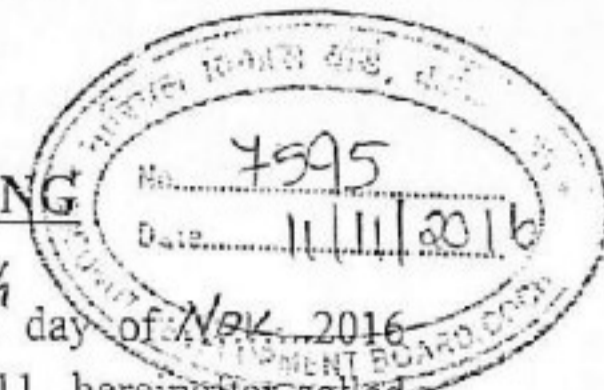
Copy To:

1. Dr. Johnny Scaria Associate Professor, Department of Statistics, Nirmala College,  
Muvattupuzha-686 661



SINO-13CR)

**MEMORANDUM OF UNDERSTANDING**



This Memorandum of Understanding made on the 8<sup>th</sup> day of Nov. 2016 between Coconut Development Board, Kera Bhavan, Kochi- 682011 hereinafter called 'the First Party' represented by Secretary and the Principal / Director ... NIRMALA COLLEGE, MUVATTUPEZZHA ..... College/University (hereinafter called 'the Second Party')

Stat

Whereas the First Party approached the Second Party for conducting a statistical survey jointly for estimation of coconut production and productivity in IDUKKI ..... district of KERALA ..... state with the objective of concurrent Estimation of coconut production and productivity for the agriculture year ( July - June ) 2016-17 . And whereas the second party has conveyed their expression of interest for undertaking and completing the survey vide letter File No. 1598/2016 - Stat ..... dated 28/10/2016 .....

10/11/16

The technical programme shall be as detailed below.

Principal  
NIRMALA COLLEGE  
MUVATTUPEZZHA

1. Survey for estimation of coconut production and productivity shall be undertaken by following the valid statistical methodology, sampling procedures which were discussed, approved, formulated by the first party in consultation with Experts/Scientists/Professors of the relevant areas of the participating colleges/institutions. The methodology standardized has been provided to the institutions.
2. The Second Party agrees to conduct field survey to collect primary data on the physical nature of the coconut gardens and the tree-wise yield particulars as per the structured format designed for the survey, strictly in accordance with the sampling procedures referred under para (1) of this MOU.
3. The Second Party agrees to send a weekly progress on the number of palms surveyed, data collected and pending samples to be covered under the survey.
4. The Second Party agrees to scrutinize the data collected and to make data entry in the online software provided by the Board, compile, analyze the survey data and estimate the yield per palm, per hectare and estimate the coconut production block wise and aggregated estimate for the district for the year 2016-17 and submit the detailed report covering all the information to the First Party, within 20 days after completion of the survey





5. The First Party, on signing the MoU, will release the sanctioned fund for the survey to the institution in two installments as follows

a. First installment : - Sanctioned fund under the following heads


- i. Climbing charges to the palm climbers.
- ii. Remuneration to the Field Investigators.
- iii. Transportation charges
- iv. Stationery / miscellaneous expenses

b. Second installment: - Honorarium to the Principal Investigator and Institutional charges will be released after submission of the Final Report on the survey to the satisfaction of the First Party.

6. The duration of the project is 2 months from the date of signing the MoU. Time schedule (as per the survey proposal) is to be strictly adhered to and the responsibility of timely deliverables is with the second party.

7. The institution agrees to provide Fund Utilization Certificate along with audited statement to the Board.

First Party

  
सचिव Secretary  
नास्त्यल विकास बोर्ड  
Coconut Development Board  
भारत सरकार Govt. Of India  
कोची Kochi-682 011

Witness

(1) V. C. Vasanthakumari Rtd. Officer

सी. वसंतकुमार V.C. Vasanthakumari  
सांख्यिकीय अधिकारी Statistician Officer  
नास्त्यल विकास बोर्ड  
Coconut Development Board

(2) Preetha


केरलमवन Kerabhavan, कोची Kochi-11  
Preetha Kumaran - P. V

Stat. Investigator


COB, He, Kochi


2

Second Party

  
F.M. JOSEPH  
PRINCIPAL  
NIRMALA COLLEGE  
MUVATTUPUZHA

Witness

  
Dr. Johny Scaria  
Nirmala College  
(1) Muvattupuzha

  
Dr. T.M. Jacob  
(2) Nirmala College  
Muvattupuzha

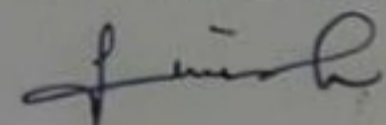




## CERTIFICATE

This is to certify that the project entitled "**Regioselective S<sub>N</sub>2 reactions for the synthesis of 5-azido *myo*-inositol**" is an authentic record of lab work carried out by **Ms. Devika Hari, student of M.Sc. Chemistry, Nirmala College, Muvattupuzha, Ernakulam,** under my supervision and guidance at Indian Institute of Science Education and Research Thiruvananthapuram, in partial fulfillment of the requirements as a part of the curriculum for the award of the degree of Master of Science in Chemistry.

For K.M. Sureshan



**Dr. Kana M Sureshan** DR. VINESH VIJAYAN  
Assistant Professor  
School of Chemistry  
IISER TVM

Associate Professor

School of Chemistry

IISER Thiruvananthapuram



**REGIOSELECTIVE S<sub>N</sub>2 REACTIONS FOR THE SYNTHESIS  
OF 5-AZIDO MYO-INOSITOL**

*A dissertation submitted to,*



**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**

*In partial fulfilment of the requirements for the award of the degree of*

**MASTER OF SCIENCE IN CHEMISTRY**

By,

**DEVIKA HARI**

(REG.NO: 170011001084)

**NIRMALA COLLEGE**

**MUVATTUPUZHA**



*Under the Guidance of*

**Dr. KANA M SURESHAN**

**SCHOOL OF CHEMISTRY**

**INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH**

**THIRUVANATHAPURAM**





ടെലിഫോൺ : 0471-2512585/2638  
തിരുവനന്തപുരം  
പിൻ-695 033



രേണഭാഷ-മാതൃഭാഷ  
ഫാക്സ് : 0471-2512375, 2305891  
E-mail : cpsta@niyamasabha.nic.in  
Website : www.niyamasabha.org

**പാർലമെന്ററി പഠന പരിശീലന കേന്ദ്രം  
കേരള നിയമസഭാ സെക്രട്ടേറിയറ്റ്**

നമ്പർ : 2995/സി.പി.എസ്.ടി എ 1/2017/നി.സെ

തിരുവനന്തപുരം  
03. 02. 2018

സെക്രട്ടറി

പ്രിൻസിപ്പാൾ,  
നിർമ്മല കോളേജ്,  
മൂവാറ്റുപുഴ

സർ,

വിഷയം:- പാർലമെന്ററി പഠന പരിശീലന കേന്ദ്രം- നിർമ്മല കോളേജ്  
വിദ്യാർത്ഥികളുടെ നിയമസഭാ പഠന സന്ദർശന പരിപാടി സംബന്ധിച്ച്.

സൂചന:- താങ്കളുടെ 30.08.2017 തീയതിയിലെ അപേക്ഷ.

മേൽ സൂചിപ്പിച്ച അപേക്ഷയിൽ ആവശ്യപ്പെട്ട പ്രകാരം നിർമ്മല കോളേജ്  
വിദ്യാർത്ഥികൾക്കും അദ്ധ്യാപകർക്കുമായി 2018 ഫെബ്രുവരി 6-ാം തീയതി ചൊവ്വാഴ്ച  
രാവിലെ 9.00 മണി മുതൽ 12.00 വരെ നിയമസഭാ പഠന സന്ദർശന പരിപാടി  
സംഘടിപ്പിക്കുന്നതിന് അനുമതി ലഭിച്ച് ഉത്തരവായ വിവരം അറിയിക്കുന്നു. പഠന സന്ദർശന  
പരിപാടിയിൽ സംബന്ധിക്കുന്നതിനായി അന്നേ ദിവസം രാവിലെ 9. 00 മണിക്ക് മുമ്പായി  
നിയമസഭ സമുച്ചയത്തിൽ എത്തണമെന്ന് അറിയിക്കുന്നു

വിശ്വസ്തയോടെ

സഖറീയ ഹി സാമുവൽ  
ഡെപ്യൂട്ടി സെക്രട്ടറി,  
സെക്രട്ടറിയറ്റ് വേണ്ടി

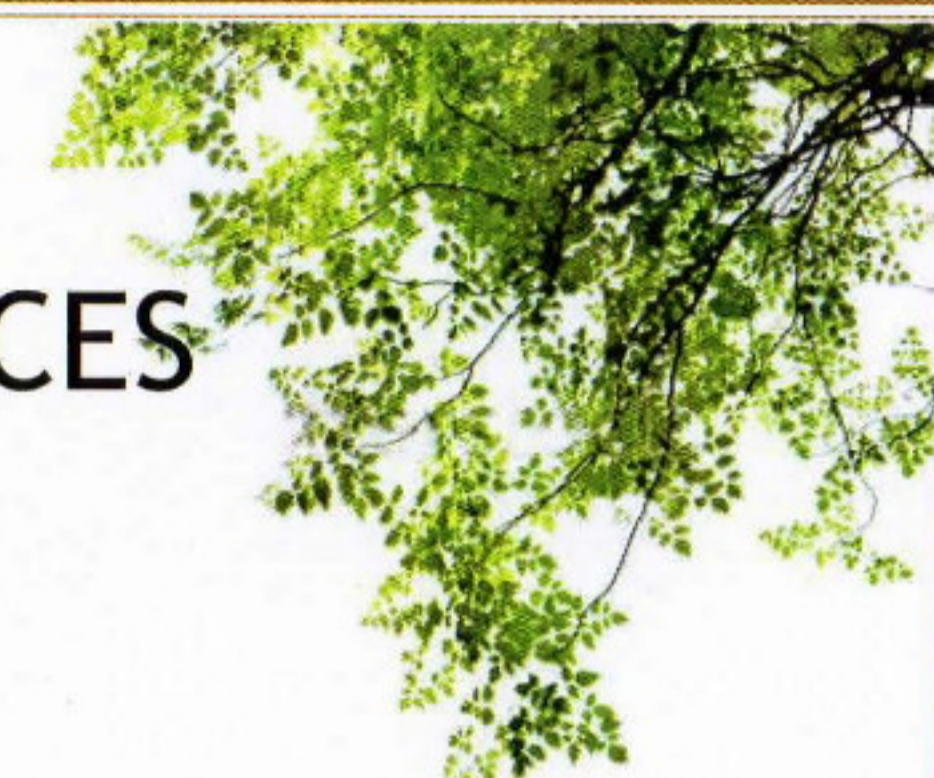




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## HANDS ON TRAINING ON BASIC MICROBIOLOGY TECHNIQUES FOR RESEARCHERS AND STUDENTS

2018 March 9-10; TIES Campus, Velloor, Kottayam

Organised by: Tropical Institute of Ecological Sciences, Kottayam

### CERTIFICATE

This is to certify that Ms. Amalendhu S

B.Sc. Botany Nirmala College Muvattupha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

  
**Dr. Punnen Kurian**  
Secretary, TIES



  
**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
10/3/2018

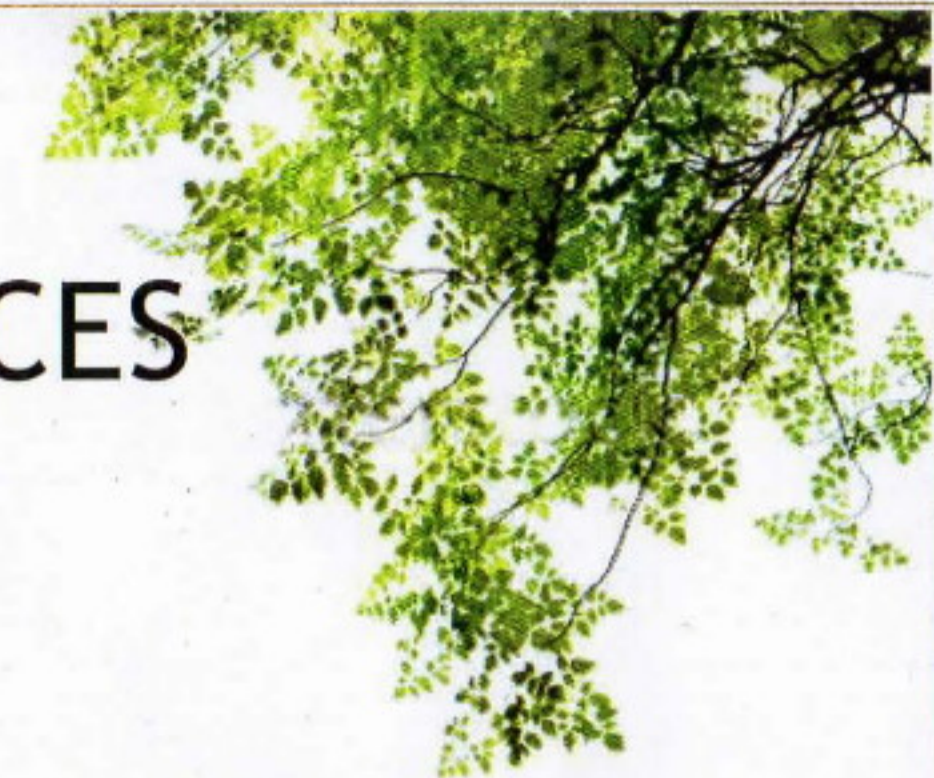




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Organised by: Tropical Institute of Ecological Sciences, Kottayam

### CERTIFICATE

This is to certify that Ms. Ann Maria Thankachan  
B.Sc Botany Nirmala College, Muvattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

  
**Dr. Punnen Kurian**  
Secretary, TIES



  
**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
10/03/2018

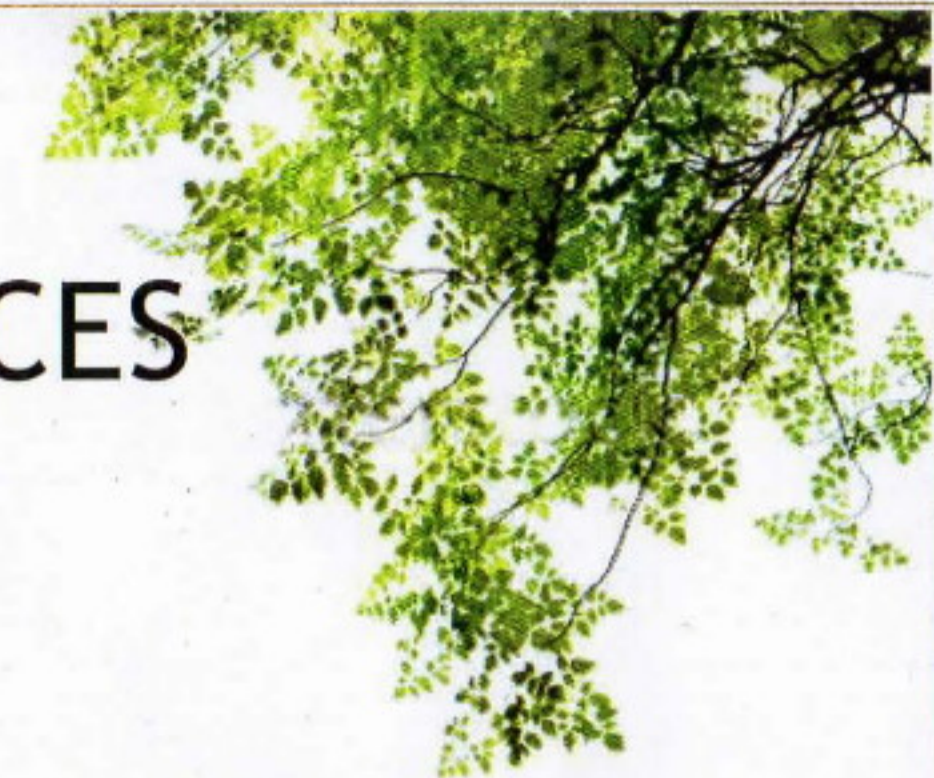




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B.Sc Botany Niymala College, Muvattupuzha

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**Dr. Punnen Kurian**  
Secretary, TIES



  
**Ms. Roshini Susan Elias**  
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Kottayam  
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Organised by: Tropical Institute of Ecological Sciences, Kottayam

### CERTIFICATE

This is to certify that ..... *Ms. Aleena Johnson* .....

..... *B.s.c Botany Nirmala College Muvattupuzha* .....

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

**Dr. Punnen Kurian**  
Secretary, TIES



**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
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### CERTIFICATE

This is to certify that Ms. Divya Dineshan  
B.Sc. Botany Nirmala College Muvattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

  
**Dr. Punnen Kurian**  
Secretary, TIES



  
**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
10 / 3 / 2018





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Organised by: Tropical Institute of Ecological Sciences, Kottayam

### CERTIFICATE

This is to certify that Ms. Maniya Eldhose

B.Sc. Botany Nirmala College, Muvattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

  
**Dr. Punnen Kurian**  
Secretary, TIES



  
**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
10/3/2018

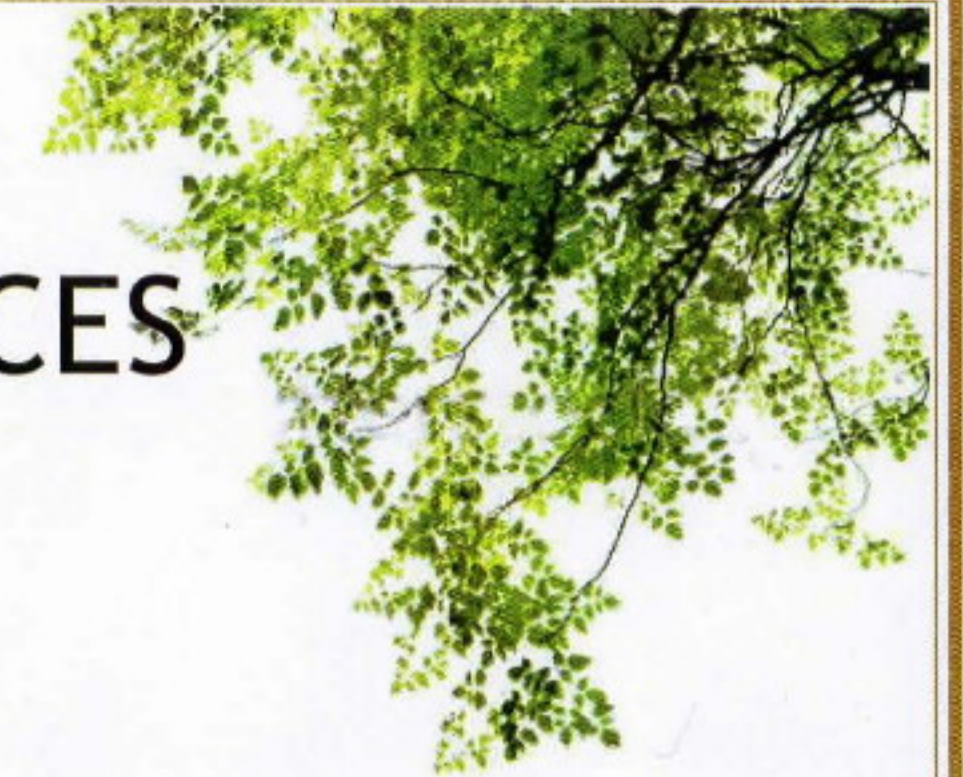




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Organised by: Tropical Institute of Ecological Sciences, Kottayam

### CERTIFICATE

This is to certify that *Ms. Melba Elizabeth Joseph*  
*B.Sc. Botany* *Nirmala* *College* *Muvattupuzha*

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

**Dr. Punnen Kurian**  
Secretary, TIES



**Ms. Roshini Susan Elias**  
Course Coordinator

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Organised by: Tropical Institute of Ecological Sciences, Kottayam

### CERTIFICATE

This is to certify that Ms. Geena Johny

B.Sc Botany Nirmala College Muvattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

  
Dr. Punnen Kurian  
Secretary, TIES



  
Ms. Roshini Susan Elias  
Course Coordinator

Kottayam  
10 / 03 / 2018

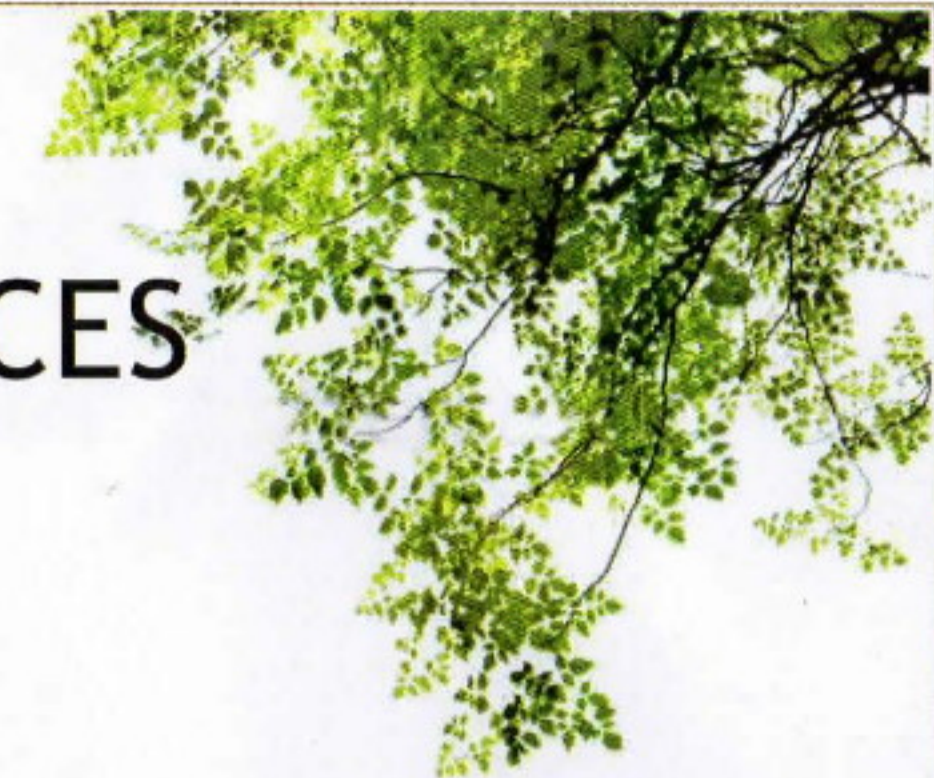




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### CERTIFICATE

This is to certify that Ms. Bhagya M Nair  
B.Sc Botany Nirmala College, Muvattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

  
**Dr. Punnen Kurian**  
Secretary, TIES



  
**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
10/03/2018

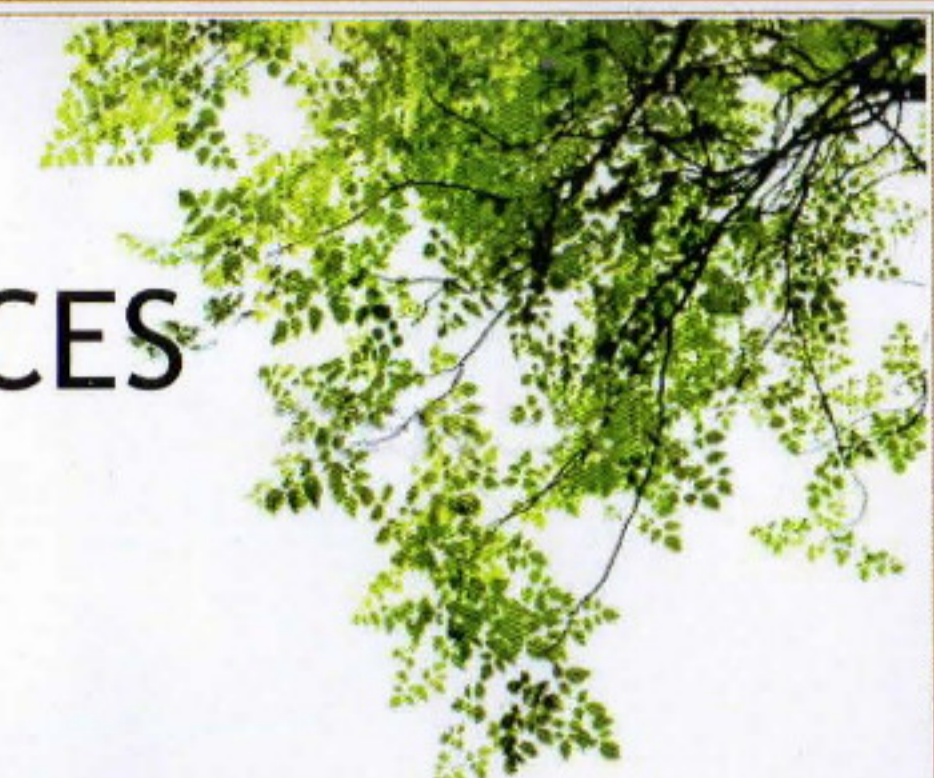




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### CERTIFICATE

This is to certify that Ms. Keishma Venu  
B.Sc. Botany Nirmala College Muvattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

**Dr. Punnen Kurian**  
Secretary, TIES



**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
10/3/2018





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### CERTIFICATE

This is to certify that Ms. Rifsana P.A  
B.Sc. Botany Nirmala College Muvattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

  
**Dr Punnen Kurian**  
Secretary, TIES



  
**Ms. Roshini Susan Elias**  
Course Coordinator

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### CERTIFICATE

This is to certify that Ms. Amalendhu P.S  
B.Sc Botany Nirmala College, Muvattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

  
**Dr. Punnen Kurian**  
Secretary, TIES



  
**Ms. Roshini Susan Elias**  
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### CERTIFICATE

This is to certify that *Ms. Farsana Fathima P.J*

*B.Sc. Botany* *Nirmala College* *Muvattupuzha*

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

**Dr. Punnen Kurian**  
Secretary, TIES



**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
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### CERTIFICATE

This is to certify that Ms. Aleena Benny  
B.Sc Botany Nirmala College, Movattupuzha

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

**Dr. Punnen Kurian**  
Secretary, TIES



**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
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Organised by: Tropical Institute of Ecological Sciences, Kottayam

### CERTIFICATE

This is to certify that *Ms. Merin Jose*.....

*B.Sc. Botany* ..... *Nirmala College* ..... *Muvattupuzha*.....

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

**Dr. Punnen Kurian**  
Secretary, TIES



**Ms. Roshini Susan Elias**  
Course Coordinator

Kottayam  
**10/3/2018**





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Organised by: Tropical Institute of Ecological Sciences, Kottayam

### CERTIFICATE

This is to certify that *Ms. Neha Rose Pious*

*B.Sc. Botany Nirmala College Muvattupuzha*

has participated in the Hands on Training on Basic Microbiology Techniques, during 2018 March 9-10 at TIES campus, Velloor, Kottayam.

Dr. Punnen Kurian  
Secretary, TIES



Ms. Roshini Susan Elias  
Course Coordinator

Kottayam  
10/3/2018





കേരളം കേരള KERALA

AD 451805

### Memorandum of Understanding ((MoU)

Memorandum of Understanding signed on 4 June 2015 between Department of Student Service, Mahatma Gandhi University Kottayam (First Party) and Nirmala College Muvattupuzha (Second Party) to conduct various academic programmes, through collaboration, such conferences, workshops, symposia, Lectures, Camps etc. at Nirmala College, Muvattupuzha on mutually agreed terms and conditions mentioned below.

1. Department of Student Service, Mahatma Gandhi University Kottayam will organise the academic programmes using their expertise at Nirmala College, Muvattupuzha.
2. The programme will be hosted by the Department of Malayalam, Nirmala College Muvattupuzha
3. The whole incidental expenditures in connection with the conduct of academic programmes will be born by Department of Student Service, Mahatma Gandhi University Kottayam from their own resources.



*[Signature]*  
PRINCIPAL  
NIRMALA COLLEGE  
MUVATTUPUZHA



*[Signature]*  
Director of Student Services

6.5.13



4. Nirmala College Muvattupuzha will provide material facilities such as furnished seminar hall, light and sound along with local hospitality needed.
5. The Department of Student Service, Mahatma Gandhi University Kottayam being the organising institution must prepare and distribute the certificate duly signed by the representatives of both the parties.

Authorised Signatory on behalf of  
Second Party

**PRINCIPAL  
NIRMALA COLLEGE  
MUVATTUPUZHA**



Authorised Signatory on behalf of  
First Party  
**Director of Student Services**



Witnessed by:

*[Handwritten signature]*

*[Handwritten signature]*



# Nuances in Chemistry Education-Series 1

Yusuf Hamied Inspirational Chemistry Programme (YHICP)  
(Supporting high-quality chemistry education in India)

29-30  
**JULY**  
2016



Organized by

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY  
NIRMALA COLLEGE, MUVATTUPUZHA

In association with

ROYAL SOCIETY OF CHEMISTRY, UNITED KINGDOM

**Venue- Audiovisual Hall, Nirmala College Muvattupuzha**



Dear Sir/Madam

The Principal and the faculty of the Postgraduate Department of Chemistry, Nirmala College Muvattupuzha have great pleasure to inform you that we are organizing a skill development programme for secondary/higher secondary school chemistry teachers. This programme is conducted under the Royal Society of Chemistry initiative, Yusuf Hamied Inspirational Chemistry Programme and is being scheduled on 29<sup>th</sup> and 30<sup>th</sup> of July 2016. Kindly bless the programme with your esteemed presence.

Thanking You,

Sr. Emy Tomy

Mr. Mathews K. Manayani  
Coordinators

Dr. Marthakutty Joseph  
(HOD)

Dr. T.M Joseph  
Principal

#### TARGET PARTICIPANTS

The programme is mainly designed for chemistry teachers at secondary/higher secondary levels, teacher aspirants and students of chemistry.

#### ROYAL SOCIETY OF CHEMISTRY

The Royal Society of Chemistry (RSC) is a professional association in the United Kingdom with the goal of "advancing the chemical sciences". It was formed in 1980 from the merger of the Chemical Society, the Royal Institute of Chemistry, the Faraday Society, and the Society for Analytical Chemistry with a new Royal Charter and the dual role of learned society and professional body. The organization carries out research, publishes journals, books and databases, as well as hosting conferences, seminars and workshops. It is the professional body for chemistry in the UK, with the ability to award the status of Chartered Chemist (CChem) and, through the Science Council the awards of Chartered Scientist (CSci), Registered Scientist (RSci) and Registered Science Technician (RScTech) to suitably qualified candidates. The designation FRSC is given to a group of elected Fellows of the society who have made major contributions to chemistry and other interface disciplines such as biological chemistry

#### YUSUF HAMIED

Yusuf Khwaja Hamied (born 25 July 1936) is a billionaire Indian scientist and businessman, the non-executive chairman of Cipla, a generic pharmaceuticals company based in Bombay. He is also highly regarded for his role in expanding the production of bulk drugs and "active pharmaceutical ingredients" (APIs, the active chemical components in medicines) in India. He was awarded the Padma Bhushan, India's third highest civilian honour by Government of India in 2005. Currently he is a member of a high-level panel of UNO on health, technology and innovation, in an effort to escalate investments in research and development for diseases where financial returns are not guaranteed.

## PROGRAMME

### FRIDAY, July 29, 2016

9.30am : Registration  
10.00 am : Inaugural session

#### Session 1

10.30am : Lecture 01  
Dr.Vimala Oak  
"Towards active learning-I"

12.30pm : Lunch

#### Session 2

1.30pm : Lecture 02  
Ms.Stalina Bhai.S  
"Towards active learning-II"

3.30pm : Tea

### SATURDAY, July 30, 2016

#### Session 3

10.00am : Lecture 03  
Dr.Vimala Oak  
"Chemical reactions and equations"

12.30pm : Lunch

#### Session 4

1.30pm : Lecture 04  
Ms.Stalina Bhai.S  
"The particle nature of matter"

3.30pm : Concluding Session

4.30pm : Tea

Certificate Distribution



## Resource Persons

**Dr.Vimala Oak** has over three decade's experience of R&D and management with R&D Division of Bharat Heavy Electricals Ltd (BHEL). She has also been engaged in the area of Child Development and teacher training from 1996 as a contribution to the society. She left the corporate job with BHEL in 2006 to devote full time to the area of human resource development and education. She has also been contributing as a volunteer to leading NGOs (Byrraju Foundation, Satyam Foundation, Dr Reddy's Foundation, Navnirmithi, Grammangal, Vipassana Ashram and Azim Premji Foundation) at Hyderabad and Pune. Her focus is on Child Development and has conducted various training programs on meditation, science experiments, mathematics, arts, games and outbound activities.

**Ms.Stalina Bhai.S** is a chemistry educator formerly associated with Bharatiya Vidya Bhavan. She is an independent researcher in Science Education with a special focus on chemistry education in India. She has also been serving as a mentor for students who participated in Science exhibitions and Science Olympiads in the national level for the past ten years. She conducts various training programmes for students with an aim to develop scientific temper in young minds as well as trains teachers to empower them with advance techniques in the areas of chemistry education and research.

### Salient features of the programme

- ▶ The Yusuf Hamied Inspirational Chemistry Programme(YHICP) is designed to empower Indian chemistry teachers and enrich the learning experience of student community
- ▶ A unique training programme in the field of science education with special focus on chemistry
- ▶ A special opportunity to participate, discuss, debate and to be updated with latest teaching techniques and methods addressing various issues in the field of science education

### Organizing Committee

Dr. Marthakutty Joseph, Prof. Jose Karikunnel, Prof. Philip Augustine,  
Prof. Mercyamma Jacob, Prof. Biju Peter, Sr. Emy Tomy  
Dr. Jyothish Kuthanapillil, Prof. Anns Maria Thomas, Prof. Mathews K. Manayani






**LINKAGE**  
**DEPARTMENT OF MANAGEMENT STUDIES (TOURISM STUDIES),**  
**NIRMALA COLLEGE, MUVATTUPUZHA**  
**&**  
**KAIROS INSTITUTE, THODUPUZHA**

This linkage is signed between Kairos Training Institute and Department of Management Studies (Tourism Studies) for the academic year 2016-17. It is agreed by Department of Management Studies and Kairos Training Institute to impart internship to the students in the field of "TRAVEL AGENCY TRAINING". Both the parties have discussed in detail the area of co-operation and mutually agreed to make the linkage. Now it is agreed by and between the parties with the following terms and conditions.

**Terms and Conditions**

1. The first party will extend their facilities to provide internship to the students in the area of "TRAVEL AGENCY TRAINING".
2. No rent nor any other incidental charges shall be paid by the second party for using the infrastructure facilities of the first party.
3. The second party may pay a nominal fee on demand as training fee to the first party.

For and behalf of

Institution	Kairos Training Institute, Thodupuzha	Department of Management Studies(Tourism Studies), Nirmala College, Muvattupuzha
Party	First Party	Second Party
Name	Mr. Jacob Mathew	Ms. Ancy John
Designation	CEO – Kairos Training Institute, Thodupuzha	Head of the Department
Signature	 	 Head of the Dept. Dept. of Tourism Studies Nirmala College, Muvattupuzha





**The Kerala Minerals and Metals Ltd.**  
(A Govt. of Kerala Undertaking)

Mineral Separation Unit  
Kovilthottam, Chavara  
Kollam-691 583, Kerala, S. India  
Ph:0476-2680047, 2680048, 2682727  
Fax:0476-2686442  
E-mail : dgms@kmml.com  
CIN : U14109KL1972SGC002399

MS/PD/T4/16  
21.05.2016

**CERTIFICATE**

This is to certify that Ms. Anju Raveendran fourth semester Master of Human Resource Management student of Nirmala College, Muvattupuzha, Ernakulam has completed her Internship training /Project work on the topic "**A Study on 'Employee's Perception on Training Effectiveness in the Kerala Minerals and Metals Limited'**" in the Mineral Separation Unit of the Company during the period from 05.04.2016 to 21.05.2016.

  
PERSONNEL OFFICER







# KITEX LIMITED

P.B. No.4, Kizhakkambalam - 683 562, Aluva, Kerala, India. Phone : 0484 - 2680600 (5 Lines)  
Fax : 0484 - 2680607, 2684866, E-mail : kitex@annagroup.net., Website : www.annaaluminium.com  
TIN No: 32151363232 dated 01.04.05, CST No: 32151363232C dated 01.04.05  
CIN: U74140KL 1975PLC002744

KTL/ADMN/PRO/318

27.05.2016

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr.TITTO G. THANKACHAN(REG NO.11168),MHRM Student of Nirmala College, Muvattupuzha has completed his Project in " H. R " on " A Study On Induction Training Programs At Kitex Limited, Kizhakkambalam " for a period of 2 months from 1<sup>st</sup> April 2016 to 27<sup>th</sup> May 2016.

His performance during the period was good and we wish him all success in future endeavours.

For KITEX LIMITED

**K. C. PILLAI**  
GENERAL MANAGER - (MKTG. & ADMN.)





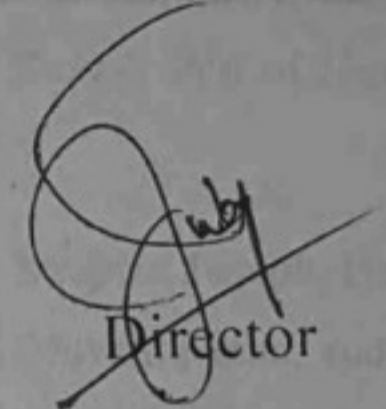


CERTIFICATE

This is to certify that Mr.Sanu Mathew, MHRM student of Nirmala College, Muvattupuzha, has successfully completed his 'A Study on Job Satisfaction Among the Employees' in Lunar Rubbers Pvt.Ltd, Thodupuzha during the period 01<sup>st</sup> April 2016 to 03<sup>rd</sup> June 2016 with necessary guidance from our Office. We wish him all success.

Thodupuzha

03.06.2016

  
Director







**KERALA ELECTRICAL & ALLIED ENGINEERING CO. LTD.**  
(A GOVERNMENT OF KERALA UNDERTAKING)  
MAMALA P.O., KOCHI - 682 305

Phone : 0484-2787705 / 07 / 08 / 11  
Fax : 91-0484-2787702  
E-mail : mamala@kel.co.in  
PIN : U31200KL 1964 SGC002062  
Website : www.kel.co.in



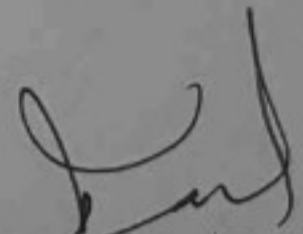
MPA/61/ *1027* /16

31<sup>st</sup> May, 2016

**CERTIFICATE**

This is to certify that Ms. Neenu Devasia (Reg.No.11159), 4<sup>th</sup> semester MHRM Student of (2014-2016) Nirmala College, Muvattupuzha, has undertaken a project study titled "A DETAILED STUDY ABOUT ABSEENTISM WITH REFERENCE TO KEL" Mamala for duration of eight weeks from 4<sup>th</sup> April – 28<sup>th</sup> May, 2016.

This candidate has successfully completed the training under my supervision

  
GENERAL MANAGER

To  
Ms. Neenu Devasia  
**MHRM Student.**





# COLUMBIA ASIA

25<sup>th</sup> May, 2016

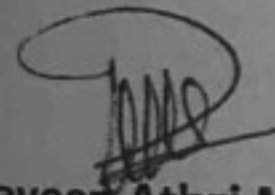
TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Binta Mathew** student of **Nirmala College, Muvattupuzha** has successfully completed her project and also Internship in **Human Resources Department of Columbia Asia Hospital, Whitefield** from **1<sup>st</sup> April, 2016 to 25<sup>th</sup> May, 2016.**

During her Internship we found her hardworking and sincere in her conduct.

We wish her all the best in her future assignments.

Yours Sincerely,  
For Columbia Asia Referral Hospitals Pvt. Ltd



Praveen Athri M S  
Human Resource Manager  
(Whitefield Unit)

**Columbia Asia Hospital - Whitefield**

Sy. No. 10P & 12P, Ramagondanahalli Village,  
Varthur Hobli, Whitefield, Bangalore East Taluk - 560 066  
Phone: +91 80 6165 6666. [www.india.columbiaasia.com](http://www.india.columbiaasia.com)

Regd. Office: Columbia Asia Hospitals Pvt. Ltd. # 8, 80 Feet Road, HAL III Stage, Indiranagar, Bangalore - 560 075. Phone: 080 4021 1000  
CIN: U85110KA2003PTC033055



Date.....

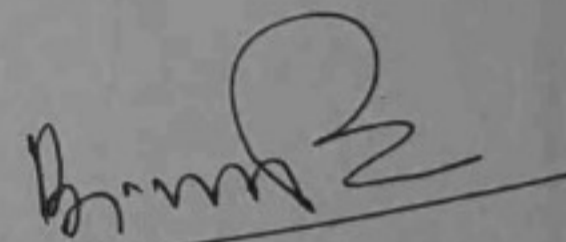
**CERTIFICATE**

This is to certify that Mr. Jose J. Arackal, (Reg. No: 11155) M.H.R.M. student of Nirmala college, Muvattupuzha had undergone a project work in our firm entitled "A STUDY ON EMPLOYEE WELFARE WITH SPECIAL REFERENCE TO SOORYA INDUSTRIES" for a period of two months From 1<sup>st</sup> April 2016. He has collected all relevant data for this purpose.

He conduct and interest in learning various aspects conducted with this study found to be good. We wish him all success in future.

Thodupuzha  
02/06/2016



  
BINOY T.K. THOTTUMKAL  
MANAGING DIRECTOR



APOLLO TYRES LTD  
6th Floor, Cherupushpam Building,  
Shanmugham Road,  
Kochi 682031,  
Kerala, India

T: +91 484 2372767  
F: +91 484 2370351  
apollo tyres.com

**apollo**

25-May-2016

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Oshian Unni, MHRM student of Nirmala College, Muvattupuzha has successfully completed her Project work on "Employee Engagement" in our organization from 01/04/2016 to 31/05/2016 as part of her academic curriculum.

The performance of Ms. Oshian Unni during the period has been good and we wish her all success in future.

For APOLLO TYRES LTD



MANEESH M S  
EXECUTIVE - HR







**RADO TYRES LIMITED**

ALWAYE MUNNAR ROAD,  
NELLIKUZHI P.O., KOTHAMANGALAM - 686 691.  
PH: 9526100615, 0485 - 2823724

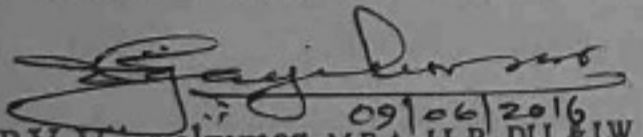
RTF/Project/16/161

9/6/2016

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Anu Thomas (Reg No.11153) , MHRM student of Nirmala College, Muvattupuzha has completed a project work titled "A Study on Employees Health and Safety at Rado Tyres " in our company during the period from 8<sup>th</sup> April 2016 to 31<sup>st</sup> May 2016.

For RADO TYRES LIMITED

  
P.V. Vijayakumar M.B.A., LL.B., DLL & LW  
Manager (HR & IR)  
Rado Tyres Ltd., Kothamangalam



GEARED TO A GREATER GRIP

REGD. OFFICE: 39/3B - 3B1, OPP. KRISHNA NURSING HOME, CHITTOOR ROAD, COCHIN - 682011  
PHONE: 0484 - 2374461, GRAMS: RADO, FAX: 0484 - 2374405, 9526100616





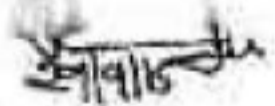
6


### ശ്രീശങ്കരാചാര്യ സംസ്കൃതസർവ്വകലാശാല കാലടി

പതഞ്ജലി സെന്റർ ഫോർ ഇന്ത്യൻ സിസ്റ്റംസ് ഓഫ് ഇന്റീജിനസ് നോളേജും മുവാറ്റുപുഴ നിർമ്മല കോളേജും സംയുക്തമായി 29-9-15 ന് നിർമ്മല കോളേജ് ഓഡിറ്റോറിയത്തിൽ വെച്ചു നടത്തുന്ന ഏകദിന ആയുർവ്വ്ജ്ഞാനീയവിലാസം സെമിനാറിനുവേണ്ടി എഴുതി ഒപ്പുവെയ്ക്കുന്ന ഉഭയകക്ഷി കരാർ താഴെ പറയുംപ്രകാരമാകുന്നു.

പതഞ്ജലിപഠനകേന്ദ്രം  
സർട്ടിഫിക്കറ്റ്, യജിസ്ട്രേഷൻ  
TA, DA ഓണറേറിയം  
(പഞ്ചസാരവകാശവും  
വിശിഷ്ടാതിഥിയ്ക്കും)  
ഫോട്ടോഗ്രാഫി  
ബുക്ക്, പേന  
ഫയൽ തുടങ്ങിയവ

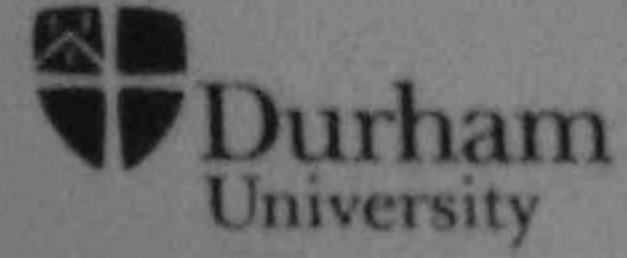
നിർമ്മല കോളേജ്, മുവാറ്റുപുഴ  
ഇൻവിറ്റേഷൻ  
പബ്ലിസിറ്റി  
ഓഡിറ്റോറിയം  
ഓഡിയൻസ്  
തുടങ്ങിയവ

കോ-ഓർഡിനേറ്റർ   
ഡോ. പി. ധാരാധ്യക്ഷണൻ  
പതഞ്ജലി പഠനകേന്ദ്രം  
ശ്രീശങ്കരാചാര്യ സംസ്കൃതസർവ്വകലാശാല  
കാലടി

  
റവ. ഡോ. വിൻസെന്റ് ജോസഫ്  
പ്രിൻസിപ്പൽ  
നിർമ്മല കോളേജ്  
മുവാറ്റുപുഴ







**Fostering Linkages in Academic Innovation  
and Research (FLAIR)**

**Certificate of Attendance**

This certifies that

Dr N Shubin Mohanan  
Department of Botany  
Nirmala College

was present at Durham University from 11<sup>th</sup> February – 7<sup>th</sup> March 2015 as part of the  
FLAIR Project. During this period, a programme of engagement and research was  
completed.

Signed Shame Procter

Date: 7<sup>th</sup> March 2015

Shame Procter – Director, International Office





GOVERNMENT OF INDIA  
LAKSHADWEEP ADMINISTRATION  
(COLLECTORATE)  
KAVARATTI - 682 555  
Phone: 04896 262084

F.No.16/2/2014-ADM

Dated 03.2015

**ENTRY PERMIT**

Entry permits are granted to the following students, faculty of MSc. Zoology Syllabus, Muvattupuzha, Ernakulam to visit Kavaratti Island, for 15 days from the date of 15-04-2015 onwards for the purpose of study tour with following conditions given below should be followed by the faculty. This permit issued as per the Letter F.No. Nil dated 13.02.2015 of Principal, Nirmala College, Muvattupuzha.

- The Students shall be compulsorily accompanied by the faculty.
- The Faculty should take care of the students
- The Faculty should take care for boarding, lodging and their safety during all Activities & stay period.

**Students:**

- Arya S Nair
- Bany Joy
- Indu C
- Jyothi V
- Merin P Johny
- Mia Elizabeth Joy
- Priyanka N P.
- Ranjitha K
- Rekha M K
- Rashma K Krishnan
- Shalu Soman
- Shelmy Basheer

**Asst. Professors**

- Ms. Laly Mathow,
- Ms. Mary P C,
- Ms. Dilmol Varghese
- Ms. Jisha Jacob,
- Dr. Gigi K Joseph,
- Ms. Ambily Elizabeth George,
- Dr. Vinod K.V.
- Rev. Dr. Vincent Joseph.

*Karanjit 25.03.15*  
(Vaidodaria Karanjit)  
ADDITIONAL DISTRICT MAGISTRATE

To

The Principal, Nirmala College, Muvattupuzha with reference to your letter F.No. Nil dated 13.02.2015

Copy to:-

- Superintendent of Police, Police (HQ), Kavaratti
- Deputy Collector, Kavaratti.
- Port Assistant, Kavaratti.

**NB:-** UT of Lakshadweep has been declared as Prohibited area under Lakshadweep Prohibition Regulation 1979 and carrying of liquor into Island is an under above Regulation and Rules frame there under.





## Kerala State Council for Science, Technology and Environment

Dr. Anilkumar C  
Scientist EII & Head  
Science Education Division

28.11.2015

46/SPYTiS II/2015/KSCSTE

Dear Sir/ Madam,

*Sub:-* Your project entitled " **A comparative study on the Air pollution tolerance index of indigenous plants at various sites in Muvattupuzha, Ernakulam district**– Sanctioning the project-reg.

*Ref:-* Decision of the Project Evaluation Committee of SPYTiS II held on 14/10/2015

This is to invite your attention to the reference cited and to inform that the project proposal entitled " **A comparative study on the Air pollution tolerance index of indigenous plants at various sites in Muvattupuzha, Ernakulam district** submitted by **Mrs. Ambili Elizabeth George, Assistant Professor, Dept of Zoology, Nirmala College Muvattupuzha** as PI and Ms. Ansu K Eldhose as student investigator(s) has been approved. An amount of **₹10000/-** (Rupees ten thousand only) is sanctioned by the Council.

The maximum number of student investigators for a single project should not exceed five and the time frame for completion of projects under SPYTiS II will be six months. The Principal Investigator (PI) has to submit the following documents to the undersigned at the earliest for the issuance of the formal sanction order.

1. A copy of the Terms and Conditions (attached with this letter) duly signed by the PI and counter signed by the Head of the Institution.
2. The date of start of the project shall be intimated to the Council.

Thanking You,

Yours sincerely,

Anilkumar C

To,

✓ Mrs. Ambili Elizabeth George, Assistant Professor, Dept of Zoology, Nirmala College  
Muvattupuzha Pincode 686661

Copy to:

The Principal, Dept of Zoology, Nirmala College Muvattupuzha Pincode 686661





## Kerala State Council for Science, Technology and Environment

Dr. Anilkumar C  
Scientist EII & Head  
Science Education Division

28.11.2015

44/SPYTiS II/2015/KSCSTE

Dear Sir/ Madam,

*Sub:-* Your project entitled "**A comparative study on the effect of organic farming and inorganic farming on soil fertility, yield and quality of Ananas comosus**" – Sanctioning the project-reg.

*Ref:-* Decision of the Project Evaluation Committee of SPYTiS II held on 14/10/2015

This is to invite your attention to the reference cited and to inform that the project proposal entitled "**A comparative study on the effect of organic farming and inorganic farming on soil fertility, yield and quality of Ananas comosus**" submitted by **Mrs. Jisha Jacob, Asst. Professor, Dept of Zoology, Nirmala College, Muvattupuzha** as PI and Ms. Meenu Babu as student investigator(s) has been approved. An amount of **₹10000/-** (Rupees ten thousand only) is sanctioned by the Council.

The maximum number of student investigators for a single project should not exceed five and the time frame for completion of projects under SPYTiS II will be six months. The Principal Investigator (PI) has to submit the following documents to the undersigned at the earliest for the issuance of the formal sanction order.

1. A copy of the Terms and Conditions (attached with this letter) duly signed by the PI and counter signed by the Head of the Institution.
2. The date of start of the project shall be intimated to the Council.

Thanking You,

Yours sincerely,

Anilkumar C


To,

✓ Mrs. Jisha Jacob, Asst. Professor, Dept of Zoology, Nirmala College,  
Muvattupuzha Pincode 686661

Copy to:

The Principal, Nirmala College, Muvattupuzha Pincode 686661



  
**KERALA STATE COUNCIL FOR SCIENCE, TECHNOLOGY AND ENVIRONMENT**  
An Autonomous body of the Government of Kerala

KSCSTE – SPYTiS Project – 2015-'16- release of financial assistance - Sanctioned - Orders issued  
Council (P) Order No.1119/2015/KSCSTE Thiruvananthapuram, Dated: 29.02.2016

Ref: (1) SPYTiS application submitted Prof. Dilmol Varghese, Associate Professor, Dept. of Zoology,  
Nirmala College, Muvattupuzha  
(2) Minutes of the Project Evaluation Committee meeting for SPYTiS-2015-'16  
(3) File No. 48/SPYTiS II/2015/KSCSTE

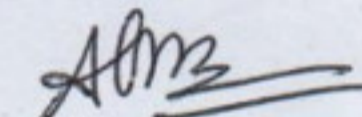
**ORDER**

Kerala State Council for Science, Technology and Environment (KSCSTE) is operating a programme to nurture young talents among school and college students to carry out science projects. Under this category, a project titled “A study on the prevalence of banana pests in Kerala agro ecosystems affecting productivity with special reference to their control strategies and management” was submitted by Prof. Dilmol Varghese, Associate Professor, Dept. of Zoology, Nirmala College, Muvattupuzha as the teacher supervisor and Ms. Alfina P K as student investigator(s). The Project Evaluation Committee for SPYTiS-2015-'16 during the meeting held on October 14, 2015 approved the project and recommended ₹/-10000 (Rupees ten thousand only) towards financial assistance to conduct the project.

KSCSTE is pleased to accord sanction to release the approved amount of ₹10000/- (Rupees ten thousand only) as account payee cheque in favour of The Principal, Nirmala College, Muvattupuzha. The expenditure in this regard will be met from the Council Budget under the Head of Account (III) Schemes and Programmes of KSCSTE- “Scheme for Promoting Young Talents in Science (SPYTiS) and Nurturing Excellence in Science Teaching (NEST)”.

The teacher supervisor should submit the final technical report, utilization certificate and statement of expenditure duly signed by the Head of the Institution within one month of completion of the project.

The above sanction has been issued under the delegated powers of the Council, with the approval of the Director, KSCSTE vide sanction No1042/DIR/2015-2016/KSCSTE dated, 29.02.2016.



**Dr. Anilkumar C**  
Scientist EII & Head  
Science Education Division, KSCSTE


To  
✓ Prof. Dilmol Varghese, Associate Professor, Dept. of Zoology, Nirmala College,  
Muvattupuzha

Copy to:

1. The Principal, Nirmala College, Muvattupuzha
2. Ms. Alfina PK, Student Nirmala College, Muvattupuzha

The Cash Section to disburse the amount through a/c payee cheque Administrative Officer,  
Finance Officer, PS to Executive Vice President, PA to Member Secretary, PA to Director, PA to  
Controller of Administration, Auditors File, Stock File/Office Copy



  
**KERALA STATE COUNCIL FOR SCIENCE, TECHNOLOGY AND ENVIRONMENT**  
An Autonomous body of the Government of Kerala

KSCSTE – SPYTiS Project – 2015-'16- release of financial assistance - Sanctioned - Orders issued  
Council (P) Order No.1091/2015/KSCSTE Thiruvananthapuram, Dated: 29.02.2016

Ref: (1) SPYTiS application submitted Dr. Gigi K Joseph, Assistant Professor, Dept of Zoology,  
Nirmala College, Muvattupuzha  
(2) Minutes of the Project Evaluation Committee meeting for SPYTiS-2015-'16  
(3) File No. 47/SPYTiS II/2015/KSCSTE

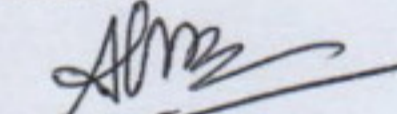
**ORDER**

Kerala State Council for Science, Technology and Environment (KSCSTE) is operating a programme to nurture young talents among school and college students to carry out science projects. Under this category, a project titled **“Invertebrate diversity of Santhukad Sacred Grove in Idukki District with special reference to the association of religio cultural values and conservation significance”** was submitted by Dr. Gigi K Joseph Assistant Professor, Dept of Zoology, Nirmala College, Muvattupuzha as the teacher supervisor and Ms. Aswathy Raj as student investigator(s). The Project Evaluation Committee for SPYTiS-2015-'16 during the meeting held on October 14, 2015 approved the project and recommended ₹10000/- (Rupees ten thousand only) towards financial assistance to conduct the project.

KSCSTE is pleased to accord sanction to release the approved amount of ₹10000/- (Rupees ten thousand only) as account payee cheque in favour of The Principal, Nirmala College, Muvattupuzha. The expenditure in this regard will be met from the Council Budget under the Head of Account (III) Schemes and Programmes of KSCSTE- “Scheme for Promoting Young Talents in Science (SPYTiS) and Nurturing Excellence in Science Teaching (NEST)”.

The teacher supervisor should submit the final technical report, utilization certificate and statement of expenditure duly signed by the Head of the Institution within one month of completion of the project.

The above sanction has been issued under the delegated powers of the Council, with the approval of the Director, KSCSTE vide sanction No1014/DIR/2015-2016/KSCSTE dated, 29.02.2016.



**Dr. Anilkumar C**  
Scientist EII & Head  
Science Education Division, KSCSTE

To

Dr. Gigi K Joseph Assistant Professor, Dept of Zoology, Nirmala College,  
Muvattupuzha

Copy to:

1. The Principal, Dr. Nirmala College, Muvattupuzha
- ✓ 2. Ms. Aswathy Raj, Student(s), Nirmala College, Muvattupuzha

The Cash Section to disburse the amount through a/c payee cheque Administrative Officer,  
Finance Officer, PS to Executive Vice President, PA to Member Secretary, PA to Director, PA to  
Controller of Administration, Auditors File, Stock File/Office Copy



**Vazhakulam Agro and Fruit Processing Company Ltd**  
(A Government of Kerala Undertaking)

VAFPC/HRD/11/136

May 29, 2015

CERTIFICATE

This is to certify that **Mr.Shown Mathew** (Reg.No.420107), 4<sup>th</sup> semester MHRM student of **Nirmala College, Muvattupuzha** had undergone an Internship in our company entitled "**A Study on Stress Management among the Employees of Vazhakulam Agro & Fruit Processing Company Limited**". He started his work on 16.02.2015 and completed on 16.03.2015. He has collected all relevant data available with us for this purpose.

His conduct and interest in learning various aspects connected with this study were found to be good. We wish him all success in future.

For Vazhakulam Agro & Fruit Processing Company Limited



Administrative Officer (Adm & HRD)







**Vazhakulam Agro and Fruit Processing Company Ltd.**  
(A Government Of Kerala Undertaking)

CIN: U15130KL20135GC035271

ISO 22000:2005

+91 485 2989095  
+91 485 2261547  
+91 485 2261551 (Fax)  
jiveagrofruit@gmail.com  
www.jivekerala.com

VAFPC/HRD/11/276

May 6, 2017

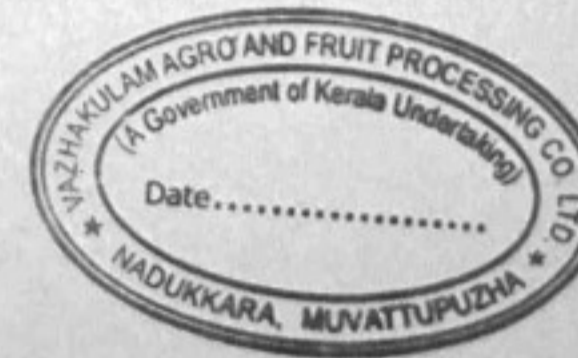
### CERTIFICATE

This is to certify that **Ms.Sreelakshmi.S.Anil** (Reg.No.15717), 4<sup>th</sup> semester MHRM student of Nirmala College, Muvattupuzha had undergone a project work in our company entitled "**A Study on Employees Stress at Vazhakulam Agro and Fruit Processing Company Limited, Nadukkara**". She started the work on 01.03.2017 and completed on 15.04.2017. She has collected all relevant data available with us for this purpose.

Her conduct and interest in learning various aspects connected with this study were found to be good. We wish her all success in future.

**For Vazhakulam Agro and Fruit Processing Company Limited**

**Administrative Officer (Adm & HRD)**





NO: 3327



**ITI**  
**ITI LIMITED**

Certificate No. 11920



Bangalore Plant Dooravaninagar  
Bangalore-560016

**HUMAN RESOURCES - EMPLOYEE DEVELOPMENT CENTRE**

**Certificate**

*This is to certify that*

*Ms. Susan James*

*Master of Human Resource Management*

*of*

*Nirmala College, Muvattupuzha - Kerala  
has successfully completed*

*Project on*

*"Quality of Work Life at ITI Ltd Bangalore"*

*During the period from 01/04/2016 to 30/05/2016*



*Susan James*  
Signature of the  
Trainee  
Date : 30/05/2016

Issuing Authority  
DGM -HR (B)

B.G. RAJESH  
ITI LIMITED  
Dooravaninagar, Bangalore-16.

www.itild-india.com Email: mhred\_bgp@itild.co.in



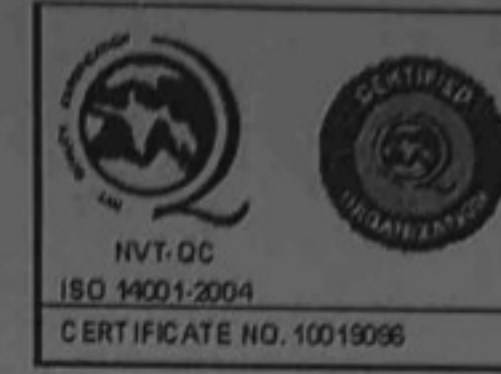


ID NO: 3328

Certificate No. 11918



**ITI**  
**ITI LIMITED**



Bangalore Plant Dooravaninagar  
Bangalore-560016

**HUMAN RESOURCES - EMPLOYEE DEVELOPMENT CENTRE**

**Certificate**

*This is to certify that*

*Ms. Anjana Muralidharan*

*Master of Human Resource Management*

*Of*


*Nirmala College, Muvattupuzha - Kerala  
has successfully completed*

*Project on*

*"Psychological Contract as a Precursor to Trim down Employee Turn over  
at ITI Ltd Bangalore"*

*During the period from 01/04/2016 to 30/05/2016*



  
Signature of the  
Trainee  
Date : 30/05/2016



Issuing Authority  
DGM -HR (B)

**B.G. RAGHUNATHA RAO**  
ITI LIMITED  
Dooravaninagar, Bangalore-16.

www.itilttd-india.com Email: mhred\_bgp@itilttd.co.in



**Synthite**

REF: SIL/PROJ/034/15

Date: June 16, 2015

CERTIFICATE

This is to certify that **Mr. Bensen Joy**, pursuing MHRM from Nirmala College, Muvattupuzha has completed his internship project in the Human Resources department at Synthite Industries Limited, Kadayiruppu from 15.02.2015 to 15.03.2015 on the topic "**Effectiveness of Induction Program**".

We wish **Mr. Bensen** all success in future endeavors.

For Synthite Industries Limited,

**Vineeth P Mathew**  
Sr. Specialist- Learning & Development





## JUBILEE MISSION MEDICAL COLLEGE HOSPITAL

P.B. No. 737, Thrissur - 680 005, Kerala, India.

Tel. Hospital: 0487 - 2432200 (30 Lines), 2420361, 2421650, 2420136.

Fax: 0091-487-2421864, E-mail: jmmcri@yahoo.co.in

26<sup>th</sup> May 2016

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Anamol Joseph** has undergone a 45 days internship programme in the Human Resources Department from **4<sup>th</sup> April 2016**.

She undertook a study on methods used for measuring training effectiveness within Jubilee Mission Medical College Hospital. During her short stint with us she showed herself to be very dedicated and hardworking.

I wish her the very best in her future endeavours.



**Joshi Paul**  
General Manager HR

Service with Love

Website: [www.jubileemissionmedicalcollege.org](http://www.jubileemissionmedicalcollege.org)



## K K R Group of Companies

Okkal P.O., Kalady, Ernakulam Dist., Kerala - 683 550  
Tel: +91 -484-2462422, 2463368, 2462154, 2462468.  
Fax : +91 -484- 2464111. e-mail: info@nirapara.com, www.nirapara.com



KKR/HR/2015/523

18<sup>th</sup> April 2015

### CERTIFICATE

This is to certify that Ms. Aswathy Haridas, MHRM Student of Nirmala College, Muvattupuzha has successfully completed her project work on "A STUDY ON THE IMPACT OF THE INCENTIVE SYSTEM ON EMPLOYEE MOTIVATION at KKR GROUP OF COMPANIES (NIRAPARA)", OKKAL, ERNAKULAM, under my guidance from 15<sup>th</sup> February 2015 to 15<sup>th</sup> March 2015 as a part of her academic studies.

Her performance during the period has been very good.

We wish her all success in her future endeavors.

For KKR Group of Companies

Shabna Ranjit  
Manager HR & Admin



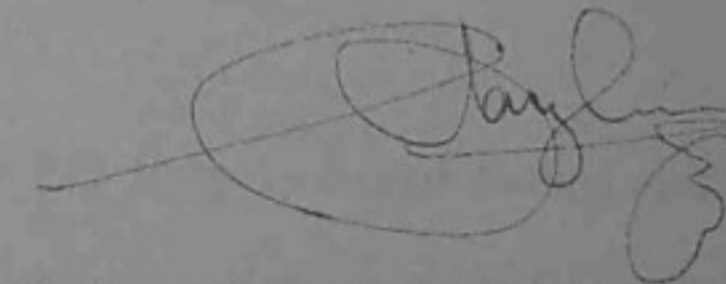


2<sup>nd</sup> May, 2015

**To whomsoever it may concern**

This is to certify that Ms. **Jane Mary Luka**, MHRM Student of Nirmala College Muvattupuzha has completed her project on “**A study on Employees opinion about the recruitment and selection strategy**” at Lisie Hospital, Kalloor from 15<sup>th</sup> February, 2015 to 15<sup>th</sup> March, 2015

Lisie Hospital is a multi-super specialty hospital under the Archdiocese of Ernakulam – Angamaly.



**Fr. Varghese Assin Thaiparambil**  
Asst. Director



Holiday Inn Cochin  
33 / 1739 A, Chakkaraparambu Junction  
National Highway Bypass, Vennala, Cochin, India  
T: +91 484 419 9000 | F: +91 484 419 9111  
www.holidayinn.com  
1-800-111000  
CIN U55101KL2006PTC019094



June 06, 2015

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Jain George, student from Nirmala College, Muvattupuzha has successfully completed her project on "Organization Culture" with us from February 16, 2015 to March 16, 2015 in the Human Resources Department.

During her tenure we found her to be sincere, hardworking, and fast learner.

We wish her all the best for her future endeavors.

For Holiday Inn Cochin



Sooresh Narayanan  
Training & Quality Manager