



കേരളം കേരल KERALA

BY 190134

**Memorandum of Understanding**

This memorandum of understanding (MOU) executed for Certificate Programme on ENERGY AUDIT IN BUILDING SECTOR on June 22, 2020 between Department of Physics, Sree Sankara College, Kalady, Ernakulam Dist., Kerala represented by its Principal, Dr. A. Suresh (hereinafter referred to as the party of the first part ) which term shall mean and include its successors and Mithradham, the first fully solar education Centre in India for Environment and Renewable Energy represented by its Director Rev. Dr. George Peter Pittappillil, Mithradham (hereinafter referred to as the party of the second part)

The first party is a NAAC accredited College offering undergraduate and postgraduate programmes in various disciplines, with a few departments offering research programmes too.

The second party is the first fully solar education Centre in India for Environment and Renewable Energy with exemplary demonstration of integration of theory and practice in environment friendly technologies and development of job- oriented courses and programs in environment and renewable energy. Mithradham provides a platform for Sustainable Living through Renewable Energy and functions as a concrete model for sustainable living and development by providing an institutional structure for demonstration, education and training in environment and renewable

No. 8173 energy Date. 22/6/20

Value of ₹ 50/-

Sold to Dr. Manju T Kalady

K. Balachandran  
Stamp Vendor  
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भारतीय नैर न्यायिक



INDIA NON JUDICIAL

The aforesaid institutions are hereinafter referred to individually as first party and second party  
BY 190133

23/6/2020

Sign and seal

Dr. SURESH A.

PRINCIPAL

SREE SANKARA COLLEGE

KALADY - 683 574

1. OBJECTIVE OF THE MOU



Sign and seal



A good degree is no longer enough to guarantee students employment. As more employers' look for graduates /post graduates with key skills, it is well accepted that there is a growing need for tie ups to enable students pursuing academics at various levels to have an understanding regarding the emerging trends in technology. The course support offered by Mithradham is designed to cover the various topics of Energy Auditing and also develop a skill to understand the energy conservation based on energy efficiency.

2. PROPOSED MODES OF COLLABORATION

Both the parties shall collaborate for the effective conduct of the course, as per the mode described below

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### **The first party agrees to -**

1. Provide students for the program and necessary infrastructure.
2. Finalize the date and time of the classes on mutual discussion. The schedule can be changed on mutual agreement, if needed.
3. Payments will be done based on UGC regulations on the same and on a quarterly basis
4. Facilitate the evaluation, student presentation, written tests and practical tests etc.
5. Issue programme certificate to the students, in the name of the college, as affiliated to Mahatma Gandhi University and with the association with second party being mentioned.
6. Issue of certificates will be based on evaluation.

### **The second party agrees to -**

1. Provide faculty for skill oriented classes on the basis of the mutually accepted curriculum.
2. The curriculum is spread for 12 hours of theory classes and 18 hours of skill content, 8 hours mock audit and 2 hours lab.
3. The skill classes based on case studies will be conducted at Sree Sankara College and Energy Audit sampling will be done at site locations selected by mutual consultation
4. As a part of the evaluation, student presentation, written tests, practical and projects should be conducted by the second party.
5. Assist students for their placements

#### **1) TERMS AND TERMINATION**

This MOU, unless extended by mutual written agreement of the parties, shall expire in 1 (one) year after the effective date specified in the opening paragraph. This MOU may be amended or terminated earlier by mutual written agreement of the parties at any time. Either party shall have the right to unilaterally terminate this MOU upon 90 days prior written notice to the other party.

#### **2) COORDINATORS**

Both parties will designate persons who will have responsibility for co-ordination and implementation of this agreement.

## 3) SIGNED IN WITNESS OF;

Both the parties have set their signature on this document under their office seal, in witness where of the parties here is affix their signature to this MOU on the day, month and year here in above first mentioned.

*[Handwritten Signature]*  
23/6/2020

First party

Principal

Dr. A. Suresh

Dr. SURESH A.  
PRINCIPAL  
SREE SANKARA COLLEGE  
KALADY - 683 574

Witness:-

1. Vrinda . S. Punnakkal  
To. Lecturer  
Dept. of Physics  
Sree Sankara College, Kalady

*[Handwritten Signature]*  
23/6/2020

2. Ben Jose  
Associat. Professor  
Department of Physics  
Sree Sankara College Kalady.

*[Handwritten Signature]*



*[Handwritten Signature]*

Second party

Director

Rev. Dr. George Peter Pittappillil,



## **Department of Physics, Sree Sankara College, Kalady**

### **Report on Activities under MoU with Mithradham Renewable Energy Centre, Aluva**

An MoU was signed between Sree Sankara College, Kalady and Mithradham Renewable Energy Centre, Aluva on 23.06.2020 for collaborating in conducting the UGC-NSQF Certificate Programme – Energy Audit in Building Sector. The programme of 30 hours was completed by 15 BSc students of Physics Department.

Mithradham Renewable Energy Centre assisted in preparing the syllabus and Curriculum, provided Resource Persons, conducted Online tests and Assignments and played a key role in organising internships for the students with Vydyuthi Energy Services, Thiruvananthapuram.

#### **The Programme**

Sustainability is a concept of very high significance in the modern world. Right from sustainable energy sources to sustainable food technology, sustainable development has been a regime of immense attention of mankind.

In this context, the department of Physics at Sree Sankara College, Kalady reached at a decision to offer its students a value-added programme in connection with energy efficient buildings. The department submitted a proposal to the UGC in September 2020, in response to the call for applying for Skill development programmes. The proposal prepared at par national Skill Quality Framework (NSQF, Level 4) was approved by UGC under self-financing scheme. Applications were called for from candidates who has qualified 10+2, from inside and outside the institute. Fifteen students were admitted out of which one was from outside the Campus. Classes started in the online mode from January 11<sup>th</sup> 2021. The COVID-19 lockdown was prevailing at that time, which affected the smooth conduct of the classes and labs.

The syllabus was designed for 18 credits of General content and 12 credits of Skill Content. Field visits and Practical classes were forced to be cut down due to COVID restrictions. All the theory classes were carried out in the online mode. When the restrictions were partially relaxed, the students were sent for internships in September 2021, on “Walk Through Energy Audit Study of 5 Government Buildings in Kodungallur Constituency”. The internships were provided by Vidyuthi Energy Services, Indira Babu Energy Ventures, Pvt. Ltd., Thiruvananthapuram.

The core courses of the general content of the programme included basics of Energy conservation, Energy efficiency, Energy tariffs, key features of energy conservation building code, GRIHA rating, Green Building Certification, whereas the skill component contained Instrumentation in Energy audit, Physics of measurement techniques and functions, instrument calibrations and errors in measurement, basic steps, methods and importance in Energy audit, Interpretation of energy audit reports, Case study of Energy Audit of a buildings as well as Case study discussions from other energy intensive sectors.

In addition to core courses, the students were given classes of Communicative English, Information Technology and Professional Ethics.

The students were evaluated after each course through evaluations and a Course complete certificate was awarded.

#### **Outcome of the Programme**

This certificate programme has definitely added value to their graduation, especially to Physics students. A training in Energy Audit has equipped them to apply the theories they learnt in their core programme and also to find a suitable career in the same regime. Three of the students could assist the annual energy audit which was done at the campus buildings right after their course. The certificate could add value to their biodata while a few students applied for post graduate programmes abroad.