



Anand Nagar, Krishnankoil - 626126, Srivilliputtur (via), Virudhunagar District, Tamilnadu.

**APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES**

Date of Application:06-07-2020

Department	PHYSICS	Application No.	20200206
Area of Research	NANOMATERIAL	Research Mode	FULL TIME

**Name** :MAYAKKANNAN.M  
**Date of Birth / Age** :11-05-1998 / 22 Years  
**Gender** :MALE  
**Category** :SC  
**e-Mail ID** :kannangs115@gmail.com  
**Mobile** :6383283886



M. Mayakkannan

<b>Father's/Husband's Name</b>	M.MURUGAN	<b>Father's/Husband's Occupation</b>	FARMER
<b>Family Income</b>	46000	<b>Residential Type</b>	RURAL
<b>Birth Place</b>	VIRUDHUNAGAR	<b>Mother Tongue</b>	TAMIL
<b>Religion</b>	HINDU	<b>Martial Status</b>	SINGLE
<b>Aadhaar No.</b>	306611392088	<b>PAN No.</b>	SIUPM8102E
<b>Physically Challenged</b>	NO	<b>Type of Disability</b>	-
<b>Address for Communication:</b> 6/526 EAST STREET, T KRISHNAPURAM, MAGARAJAPURAM(PO) SRIVILLIPUTHUR VIRUDHUNAGAR DISTRICT TAMILNADU INDIA Pin-626149		<b>Permenant Address:</b> 6/526 EAST STREET, T KRISHNAPURAM, MAGARAJAPURAM (PO) SRIVILLIPUTHUR VIRUDHUNAGAR DISTRICT TAMILNADU INDIA Pin-626149	

Qualification						
Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
M.SC	GOOD	KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION	2020	7.2	1	REGULAR
B.SC	GOOD	KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION	2018	7.46	1	REGULAR

Experience				
Organization	Designation	Experience From	Experience TO	Work Nature

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
20200206_200710203527	SHD48984507172	10-07-2020	600	SUCCESS

## **Abstract**

The synthesis of K10-MMT clay assisted magnetic materials (Ni, Co) doped ZnO nanoparticles were successfully synthesized by microwave irradiation method and CTAB as surfactant. The prepared nanoparticles were characterized by different analytical method like, structural, morphological, optical properties. Moreover, the samples was examined with electrochemical and photocatalytic application. From the FTIR analysis the functional groups of resulting nanomaterials were confirmed. The rod shaped morphology was observed from SEM micrograph the size of the rod thickness 200 nm and few micro meters length. The rod shaped K-10 clay intercalated pure ZnO and Ni<sup>2+</sup>, Co<sup>2+</sup> doped ZnO NPs was observed that, When doping magnetic metals (Ni<sup>2+</sup>, Co<sup>2+</sup>) with ZnO nanoparticles, the crystallites size decreases. The lattice is subjected to strain due to the substitution of dopant. It was observed that the band gap of pure ZnO decreases as Co<sup>2+</sup> and Ni<sup>2+</sup> dopant increases. The samples were examined with photocatalytic and electrochemical behaviors and the results are discussed.

The magnetic metals doped ZnO/montmorillonite nanocomposites are expected to be useful for various applications, for instance, as photo catalysts for hydrogen production from water.

**Key words:** K10-MMT clay, Clay@ZnO/Ni/Co, Microwave, Photocatalyst, Electrochemical studies.

Sl.No: 20181099

**KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION**  
(Deemed to be University)  
(Under Section 3 of UGC Act 1956)



Register No.

9915026004



The Board of Management of the Kalasalingam Academy Of Research And Education ,  
**MAYAKKANNAN M** .....has  
hereby makes known that Ms./Mr. ....  
been admitted to the Degree of .....  
Bachelor of Science in Physics  
he / she having been certified by duly appointed examiners to be qualified to receive the same  
and having been placed in the .....  
First Class  
at the examination held in .....  
Apr/May 2018

Given under the seal



Anand Nagar,  
Krishnankoil - 626 126,  
Tamil Nadu, India

Date: 28/10/2018

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Sl.No: 20181099

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Register No.

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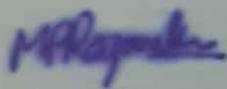
The Board of Management of the Kalasalingam Academy Of Research And Education ,  
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## Underlaking

I M. Mayakkannan having KARE Application

ID 20200206 registered for the programme

Ph.D of Department of physics, here by

declare That I will submit the following

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Transfer Certificate

Vote. ID

P.G Final Marksheel

Signature of Candidate  
M. Mayakkannan

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आयकर विभाग  
INCOME TAX DEPARTMENT

स्थायी लेखा संख्या कार्ड

Permanent Account Number Card

FIUPM8102E



नाम / Name

MAYAKKANNAN MURUGAN

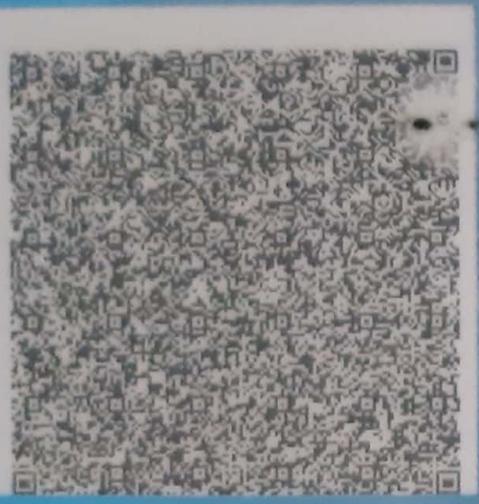
पिता का नाम / Father's Name

MURUGAN

जन्म की तारीख / Date of Birth

11/05/1998

हस्ताक्षर / Signature



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R.Dis. 589/2012

GCP-374-3-8,15,503-Cps-13-06-2011 [Acer-1]

Dated.....20

SC



மாவட்டக் குறியீடு எண் : 17  
District Code :  
வட்டக் குறியீடு எண் : 01  
Taluk Code  
கிராமக் குறியீடு எண் : 009  
Village Code :

சான்றிதழ் எண் :  
Certificate No. :

7565415

வகுப்புச் சான்றிதழ்  
COMMUNITY CERTIFICATE

விருதுநகர் மாவட்டம், ஸ்ரீவில்லிபுத்தூர் வட்டம்  
செல்வன்/செல்வி கிராமம்/தகரம், திருத்திரமதி/செல்வன்/செல்வி  
பெயர்: செல்வி - சிவ்ந்திரன் - அண்ணா வகுப்பைச் சார்ந்தவர்.  
ஆதிதிராவிடர் மற்றும் பழங்குடியினர் ஆணைகள் (திருத்தப்பட்டு) கீழ்க் 1976 வரிசை எண் 049-படி ஆதிதிராவிடர் வகுப்பைச் சார்ந்தவர் எனச் சான்றளிக்கப்படுகிறது.

This is to certify that Son/Daughter of Thiru./Tmt./Selvan/Selvi of Village/Town Taluk District of the State of Tamil Nadu belongs to Community, which is recognised as Scheduled Caste as per the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976 vide Serial No. 2. திருத்திரமதி/செல்வன்/செல்வி, ஸ்ரீவில்லிபுத்தூர் வட்டத்தில், கிராமத்தில்/தகரத்தில் வசித்து வருகிறார்கள் எனச் சான்றளிக்கப்படுகிறது.

2. It is certified that Thiru/Tmt./Selvan/Selvi and his/her family ordinarily reside(s) at Village/Town Taluk District of Tamil Nadu.

முத்திரை Seal.



கையொப்பம் :  
Signature :  
நாள் :  
Date :  
(முத்திரைக்களில்) :  
Letters :  
பதவி :  
Designation :

TAHSILDAR  
VILLIPUTTUR

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