



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

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:10-10-2023

| | | | |
|------------------|-----------------|-----------------|-----------|
| Department | CHEMISTRY | Application No. | 202312089 |
| Area of Research | ELECTROCHEMISTR | Research Mode | FULL TIME |

Name :TAMILSELVAN K
Date of Birth / Age :18-03-1999 / 24 Years
Gender :MALE
Category :SC
e-Mail ID :tamilselvan38967@gmail.com
Mobile :9629428123



| | | | |
|--|----------------|--|-----------------|
| Father's/Husband's Name | KALIAPPAN S | Father's/Husband's Occupation | SANITARY WORKER |
| Family Income | 100000 | Residential Type | RURAL |
| Birth Place | SRIVILLIPUTTUR | Mother Tongue | TAMILNADU |
| Religion | HINDU | Martial Status | SINGLE |
| Aadhaar No. | 205047337350 | PAN No. | - |
| Physically Challenged | NO | Type of Disability | - |
| Address for Communication: 15A VOC NAGAR SRIVILLIPUTTUR VIRUTHUNAGAR DISTRICT TAMILNADU INDIA Pin-626125 | | Permenant Address: 15A VOC NAGAR SRIVILLIPUTTUR VIRUTHUNAGAR DISTRICT TAMILNADU INDIA Pin-626125 | |

| Qualification | | | | | | |
|---------------|------------|--|-------------|----------|-------------|----------|
| Degree | Discipline | College/university | Year Passed | AVG/CGPA | Class | Mode |
| M.SC | CHEMISTRY | KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION | 2022 | 7.42 | FIRST CLASS | DISTANCE |
| B.SC | CHEMISTRY | KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION | 2021 | 6.4 | FIRST CLASS | DISTANCE |

| Experience | | | | | |
|---------------------------|----------------------|-----------------|---------------|-------------|--|
| Organization | Designation | Experience From | Experience TO | Work Nature | |
| DEVENDRAN PLASTIC PVT LTD | QUALITY LAB INCHARCH | 2021-01-10 | 2021-12-10 | QUALITY LAB | |

| Payment Details | | | | |
|------------------------|----------------|---------------------|--------|---------|
| Transaction ID | Reference | Date of transaction | Amount | Status |
| 202312089_231018170703 | ZHD51472169301 | 18-10-2023 | 600 | SUCCESS |

DEVELOPMENT OF NANO-COMPOSITE BASED MATERIALS FOR APPLICATION IN SOLID OXIDE FUEL CELL (SOFC) APPLICATION

Integration of hybrid nanocomposite materials in a solid oxide fuel cell (SOFC) provides excellent improved properties such as electrical conductivity and thermal stability. Similarly, the synergetic effect of materials used in nanocomposite membranes gives suppression of fuel crossover with reduced cost of operation. Currently available materials comprising of various metal oxides display their moderate characteristics in SOFC applications. In this research work, we propose to synthesize set of metal oxide based nanocomposite materials using wet chemical synthesis routes. The synthesis materials will be characterized systematically using different techniques, such as, XRD, FTIR, particle size analysis, surface area measurements, SEM, EDAX TEM and AFM measurements. Their electrical properties will be studied by high temperature impedance measurements. Based on the results, suitable alternate anode, cathode and electrolyte materials will be proposed for application in solid oxide fuel cell (SOFC) application.



KALASALINGAM

ACADEMY OF RESEARCH AND EDUCATION

(Deemed to be University)

(Under Section 3 of UGC Act 1956)

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

Sl. No. : PC 184734

Provisional Certificate

Register No: 9921126009

TAMILSELVAN K

This is to certify that.....

M.Sc.(Chemistry)

has qualified for the Degree of.....

..... he/she having passed the final examination

Apr/May 2023

7.42

held in.....

He/She has secured a CGPA of.....

First Class

and placed in.....



Place: Krishnankoil

Date: 09/08/2023

W. S. L.
Controller of Examinations



M.Sc. Degree Examinations

CONSOLIDATED GRADE CARD

Name of the Student: TAMILSELVAN K

Register No: 9921126009

Branch: Chemistry

Batch: 2021-2023

| SEM | COURSE CODE | NAME OF THE COURSE | TYPE OF COURSE | ATT. CODE | CREDITS | GRADE | MONTH & YEAR OF PASSING |
|------------------|-------------|--|----------------|-----------|---------|-------|-------------------------|
| CGPA COURSES | | | | | | | |
| 1 | CHY18R4001 | Inorganic Chemistry-I | TP | 9 | 4.0 | B | Nov/Dec 2021 |
| 1 | CHY18R4002 | Organic Chemistry-I | T | 9 | 4.0 | B | Nov/Dec 2021 |
| 1 | CHY18R4003 | Physical Chemistry-I | T | 9 | 4.0 | B | Nov/Dec 2021 |
| 1 | CHY18R4004 | Analytical Techniques | T | 9 | 4.0 | B | Nov/Dec 2021 |
| 1 | CHY18R4031 | Spectroscopy | T | 9 | 4.0 | C | Nov/Dec 2021 |
| 1 | CHY18R4081 | Physical Chemistry Laboratory | L | 9 | 3.0 | S | Nov/Dec 2021 |
| 1 | CHY18R4083 | Seminar and Comprehensive Viva-I | L | 9 | 2.0 | S | Nov/Dec 2021 |
| 2 | CHY18R4006 | Organic Chemistry-II | TP | H | 4.0 | D | Apr/May 2022 |
| 2 | CHY18R4005 | Inorganic Chemistry-II | T | H | 4.0 | D | Apr/May 2022 |
| 2 | CHY18R4007 | Physical Chemistry-II | T | H | 4.0 | B | Apr/May 2022 |
| 2 | CHY18R4034 | Medicinal Chemistry | T | H | 4.0 | B | Apr/May 2022 |
| 2 | CHY18R4035 | Supramolecular Chemistry | T | 9 | 4.0 | C | Apr/May 2022 |
| 2 | CHY18R4061 | Materials Characterization Techniques | L | H | 2.0 | C | Apr/May 2022 |
| 2 | CHY18R4082 | Inorganic Chemistry Laboratory | L | H | 3.0 | S | Apr/May 2022 |
| 2 | CHY18R4084 | Seminar and Comprehensive Viva-II | L | 8 | 2.0 | B | Apr/May 2022 |
| 3 | CHY18R5002 | Electrochemistry and Photochemistry | TP | H | 4.0 | A | Nov/Dec 2022 |
| 3 | CHY18R5001 | Synthetic Strategies in Natural Product Chemistry | T | H | 4.0 | E | Nov/Dec 2022 |
| 3 | CHY18R5003 | Statistical Thermodynamics and Equilibrium Phenomena | T | 9 | 4.0 | C | Nov/Dec 2022 |
| 3 | CHY18R5034 | Polymeric Materials | T | 9 | 4.0 | C | Nov/Dec 2022 |
| 3 | CHY18R5051 | Research Methodology | T | H | 2.0 | C | Nov/Dec 2022 |
| 3 | CHY18R5081 | Organic Chemistry Laboratory | L | H | 3.0 | C | Nov/Dec 2022 |
| 3 | CHY18R5082 | Seminar and Comprehensive Viva-III | L | 9 | 2.0 | C | Nov/Dec 2022 |
| 3 | CHY18R5098 | Project Work (Phase-I) | L | 8 | 3.0 | C | Nov/Dec 2022 |
| 4 | CHY18R5031 | Corrosion Science | T | 9 | 4.0 | D | Apr/May 2023 |
| 4 | CHY18R5099 | Project Work (Phase-II) | L | 9 | 8.0 | C | Apr/May 2023 |
| Non-CGPA COURSES | | | | | | | |
| - | NPG18R501 | NET/SET/JEST/GATE Coaching Class | | | 1 | Pass | |
| - | NPG18R504 | Participation in Guest Lecture | | | 1 | Pass | |

CGPA CREDITS

| EARNED | TOTAL TO BE EARNED | CGPA | CLASS AWARDED |
|--------|--------------------|------|---------------|
| 90.0 | 90.0 | 7.42 | First Class |

Please see overleaf for details

Place : Krishnankoil

Date : 14/08/2023



M. Anand

Controller of Examinations



KALASALINGAM

Academy of Research and Education
DEEMED TO BE UNIVERSITY

(Under Section 3 of UGC Act 1956)

Anand Nagar, Krishnankoil - 626 126.
Srivilliputtur (Via), Virudhunagar (Dt), Tamil Nadu, India

TRANSFER CERTIFICATE

1. Name of the Pupil (In Block Letters) : TAMILSELVAN K
2. Date of Birth : 18/03/1999
3. Nationality, Religion and Caste : Indian, Hindu and Kuravan
4. Date of joining to the university : 05/08/2021
5. Course Details
 - a) Registration no. : 9921126009
 - b) Degree : M.Sc
 - c) Specialization : Chemistry
 - d) Batch : 2021 - 2023
6. Whether qualified for promotion to a higher class : Yes - REFER THE MARK STATEMENT
7. Is there any break during the studies (If so, specify the period) : No
அறிவு அற்றம் காக்கும் கருவி
8. Whether the pupil has paid all the fees to the university : Yes
9. Date on which application for TC was made : 24/07/2023
10. Date on which actually the pupil left the university : 19/04/2023
11. Medium of instruction : English

Date : 24/07/2023



REGISTRAR

स्थायी लेखा संख्या
Permanent Account Number
OCBPK8107D

| | | |
|--|--|--|
| नाम / Name | Tamilselvan K | |
| जन्म तिथि / Date of Birth | 18/03/1999 | |
| लिंग / Gender | Male | |
| आधार संख्या / Aadhaar Number | XXXXXXXX7350 | |
|  |  | |

- Permanent Account Number(PAN) is a ten digit alpha numeric number allotted by the Income-tax department for compliance to the provisions of Income-tax Act and Rules including filing of Income-tax return, payment of taxes etc..
स्थायी लेखा संख्या (पैन) एक दस अंक का अक्षरांकीय संख्या है जो आयकर अधिनियम के प्रावधानों के तहत कर का भुगतान और आयकर रिटर्न भरने के लिए नियमों का अनुपालन इत्यादि करने हेतु आवंटित किया जाता है।
- Quoting of PAN is mandatory for several transactions specified under Income- tax Act, 1961 (Refer Rule 114B of Income -tax Rules, 1962) आयकर अधिनियम, 1961 के तहत निर्दिष्ट कई लेनदेन के लिए स्थायी लेखा संख्या (पैन) का उल्लेख अनिवार्य है (आयकर नियम, 1962 के नियम 114बी, का संदर्भ लें)
- Possession or use of more than one PAN is against the law and may attract penalty of Rs. 10,000/- एक से अधिक स्थायी लेखा संख्या (पैन) रखना या उपयोग करना, कानून के विरुद्ध है और इसके लिए 10,000 रुपये का अर्थदंड लगाया जा सकता है।
- The PAN card enclosed contains QR Code which is readable by a specific mobile App.
संलग्न पैन कार्ड में एनहान्स क्यूआर कोड शामिल है जो एक विशिष्ट एंज़ॉइंट मोबाइल ऐप द्वारा पठनीय है।

| | | |
|--|--|--|
| <p>आयकर विभाग INCOME TAX DEPARTMENT</p>  <p>नाम / Name Tamilselvan K</p> <p>जन्म तिथि / Date of Birth 18/03/1999</p> <p>हस्ताक्षर / Signature :</p> | <p>भारत सरकार GOVT. OF INDIA</p> <p>स्थायी लेखा संख्या Permanent Account Number OCBPK8107D</p>  | <p>इस कार्ड के खोने / पाने पर कृपया सूचित करें / लौटाएं: संयुक्त निदेशक (पद्धति) -1, पैन मॉड्यूल 9वीं मंजिल, आयकर भवन, सेक्टर -3, वैशाली, गाजियाबाद - 201010, उत्तर प्रदेश</p> <p>If this card is lost / someone's lost card is found, please inform / return to: Joint Director (Systems)-1, PAN Module 9th floor, Aayakar Bhawan, Sector - 3, Vaishali, Ghaziabad - 201010, Uttar Pradesh Tel no: 0120-2770078; Fax : 0120-2770078 Mail-id : epan@incometax.gov.in</p> |
|--|--|--|



இந்திய தேர்தல் ஆணையம்
Election Commission of India



வாக்காளர் புகைப்பட அடையாள அட்டை ELECTOR PHOTO IDENTITY CARD



YXB2091361



வாக்காளர் பெயர்: தமிழ்ச்செல்வன்

Name : Thamilselvan

தந்தையின் பெயர்: காளியப்பன்

Father's Name : Kaliappan

भारत निवचन आयोग

R.Dis. 68 /20 12

GCP-374-10-7,06,000 Cps.-09-02-2010 [Hcl-4]

Dated.....20

SC



சான்றிதழ் எண் :
Certificate No. :

7127851

மாவட்டக் குறியீடு எண் :

17

District Code

வட்டக் குறியீடு எண் :

01

Taluk Code

கிராமக் குறியீடு எண் :

031

Village Code

வகுப்புச் சான்றிதழ் COMMUNITY CERTIFICATE

விருதுநகர் மாவட்டம் ஸ்ரீவில்லிபுத்தூர் வட்டம்
சீல்கிம் மருப்புரம் கிராமம்/நகரம் திரு/திருச்சி/செல்வன்/

செல்வி கிட்டுச்சீல்கிவன் தகப்பனார்/கணவர்
பெயர் கானியப்பன் இத்தி - குறவர் வகுப்பைச்

சார்ந்தவர். ஆதிதிராவிடர் மற்றும் பழங்குடியினர் ஆணைகள் (திருத்தப்பட்ட) சட்டம் 1976 வரிசை எண் 36 படி ஆதிதிராவிடர் வகுப்பைச் சார்ந்தவர் எனச் சான்றளிக்கப்படுகிறது.

This is to certify that Son / Daughter of Thiru. 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. திரு/திருச்சி/செல்வன்/செல்வி கிட்டுச்சீல்கிவன் என்பவரும் அவருடைய குடும்பத்தினரும் தமிழ்நாட்டில் ஸ்ரீவில்லிபுத்தூர் வட்டத்தில் கிராமத்தின்காரத்தில் 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.



Handwritten signature

TAHSILDAR SRIVILLIPUTTUR

Date

2/3/12

Name in Capital Letters