M. Sc. Project Report

Ionic Liquid-Cellulose based solid electrolyte for Lithium Ion Battery

Report on a Project Carried Out as a Part of

Curriculum for the Degree of

Master of Science in Organic Chemistry

At

Centre for Materials for Electronic Technology (C-MET)

Panchawati, Pune-411008

By

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Submitted to

Department of Chemistry

R.B.N.B College, Shrirampur

Affiliated to SavitribaiPhule Pune University, Pune

DECLARATION

I, Rushikesh Bhaskar Kale, as student of Department of Chemistry, R.B.N.B college ,Shrirampur ,hereby declare that the project entitled **"Ionic Liquid-Cellulose based solid electrolyte for Lithium Ion Battery"** has been undertaken by me under the guidance of Dr.Nageshwar Khupse, DST-Young Scientist C-MET,Pune.I further declare that it is my original work and it has notbeen previously formed the basis for the award of any degree or diploma. The empirical findings in this report are based on data collected by me during the course of the project work.

Rushikesh Bhaskar Kale

सेन्टर फॉर मेटिरियल्स फॉर इलेक्ट्रॉनिक्स टेक्नोलॉजी (सी-मेट)
(वैज्ञानिक संस्था, इलेक्ट्रॉनिकी और सूचना प्रौद्योगिकी मंत्रालय, भारत सरकार)
पंचवटी, ऑफ डॉ. होमी भाभा मार्ग, पाषाण, पुणे - ४११ ००८, भारत.
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CERTIFICATE

This is to certify that the dissertation entitled**, "Ionic Liquid-Cellulose based Solid Electrolyte for Lithium Ion Battery"** submitted by **Rushikesh Bhaskar Kale** as a project work requirement for the award of Master of Science (M.Sc.) in Organic Chemistry. The work was done by the candidate under my supervision at the **Centre for Materials for Electronic Technology (C-MET)** Panchawati, Pune.

Date: 19/03/2021 Supervisor
Place: Pune

INDEX

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Lastly and most importantly I would like to thank my parents for their constant support to all my ventures and my family and all my friends who are my most valued support.

Rushikesh Bhaskar Kale

Abbreviation

IL- Ionic Liquid

NMR- Nuclear Magnetic Resonance

UV- Ultra Violet

SPE- Solid Polymer Electrolyte

LIBs- Lithium Ion Batteries

Ionic Liquid-Cellulose based Solid Electrolyte for Lithium Ion Battery

1. Introduction

Lithium-ion batteries are among the auspicious technologies to meet the increasing demand of efficient energy storage systems. The transformation of the fossil fuel-based transportation to electric vehicles and even smart grid community systems undoubtedly needs safer and energy dense batteries. Despite considerable efforts to tune state of the art Lithium Ion Batteries, various issues with thermal management and consequently safety limit their widespread applications in consumer market. However, the most propitious technology to address these issues is the use of solid state polymer batteries. Conventional Lithium Ion Batteries composed of solid electrodes and liquid electrolytes suffer from potential risks such as leakage of volatile liquids, flammability and explosion. Also, Lithium Ion Batteries with carbonate based liquids electrolytes in EVs need to have a cooling system to keep them at a safe and slightly elevated operating temperature. Solid polymer electrolytes have potential to overcome the safety concerns encountered with liquid based electrolytes.

To address the challenge of safer lithium (ion) batteries, there is a requirement for new electrolytes and as subsequent new separator materials. Current battery electrolytes use volatile, toxic and flammable materials, and the separator are designed specifically for these materials to support their performance. The use of a novel liquid electrolyte can introduce new complexities such as increased viscosity, reduced ionic conductivity and reduced wetting of commercial separator materials which strongly influences the charge–discharge characteristics of the device. To address these issues, there is a need to design new separator materials that can not only act as

a robust separator for the electrodes, but facilitate ion transfer and, potentially, stabilize the solid-electrolyte interface (SEI) at both the cathode and anode.

Solid polymer electrolytes offer many advantages as follows: they act as self separator and resist dendrite growth and are inert toward lithium metal and noncorrosive. In addition, there are no chances of leakage or internal shorting as observed in liquid electrolytes. Moreover, Solid polymer electrolytes exhibit good chemical and thermal stabilities with electrodes and a higher electrochemical stability window. Solid polymer electrolytes are light weight, flexible and are highly processable. However, they face a number of problems such as poor ionic conductivity at room temperature, higher operating temperatures, limited thermal stability, and sluggish ion transformations than liquid electrolytes. One of the best approaches to improve conductivity is incorporation of ionic liquids into the polymer electrolyte.

Ionic liquids are salts in molten state at ambient temperature and known as "room temperature ionic liquids". Ionic liquid possesses unique properties such as negligible vapor pressure, excellent ionic conductivity, notable thermal stability, and large electrochemical stability window. Ionic liquid based electrolytes have elevated ionic conductivities as well as high viscosity and low Li^+ transference numbers. The incorporation of ionic liquids in the polymer matrix leads to increase in ionic conductivity, thermal stability, mechanical strength and resolve the safety issue of flammability upon heat stress and electrochemical stability window of the Solid polymer electrolyte.

Typically, a solution of Lithium salt in ionic liquid are formed by adding lithium salt to ionic liquid ensures considerable lithium ion conductivity. There are a variety of ionic liquids available to use as plasticizers in polymer electrolytes, such as imidazolium, piperidinium, quaternary ammonium and pyrrolidinium based ionic liquids. The ionic liquids derived from quaternary nitrogen based

cations were observed to be stable even at the potential of metallic lithium. This not only allowed the electrochemical plating but also resulting in the striping of the metallic lithium from this electrolyte. In particular, [EMIM][TFSI] shows a wide electrochemical stability window, high ionic conductivity, and low viscosity which extensively improve the polymer electrolyte performance after incorporation. These ILs contains highly delocalized fluorinated anions, which are usually hydrophobic even though they shows comparatively high polarity.

In this work, the polymer system is based on renewable polymers like polyethylene glycol methacrylate (PEGMA) and cellulose tri acetate (CTA) and polymerized using a photopolymerisation technique. Here, CTA not only provides mechanical strengths but also improves the ionic conductivity due to its carbonyl and ether functional groups. Previously, Zhang *et al.* reported cellulose microcrystals with brush like structure as an electrolyte for LIBs. Here, a unique combination of CTA, PEGMA, ionic Liquid [EMIM][TFSI] and salt (LiTFSI) forms temporary ionic interactions, thus accelerating the lithium ion mobility. These interactions assists easy and continuous springing of Li^+ ions from one site to another, which further leads to enhancement of the ionic conductivity. A Li^+ ion cell has been fabricated using as synthesized SPE [EMIM][TFSI] and its electrochemical performance has been demonstrated at room temperature. Our system involves an electrolyte system, based on environmentally friendly components with very high mechanical strengths and optimum cycling performance. With high strength and improved high voltage stability, our solid polymer electrolyte directs towards safer and flexible lithium ion batteries.

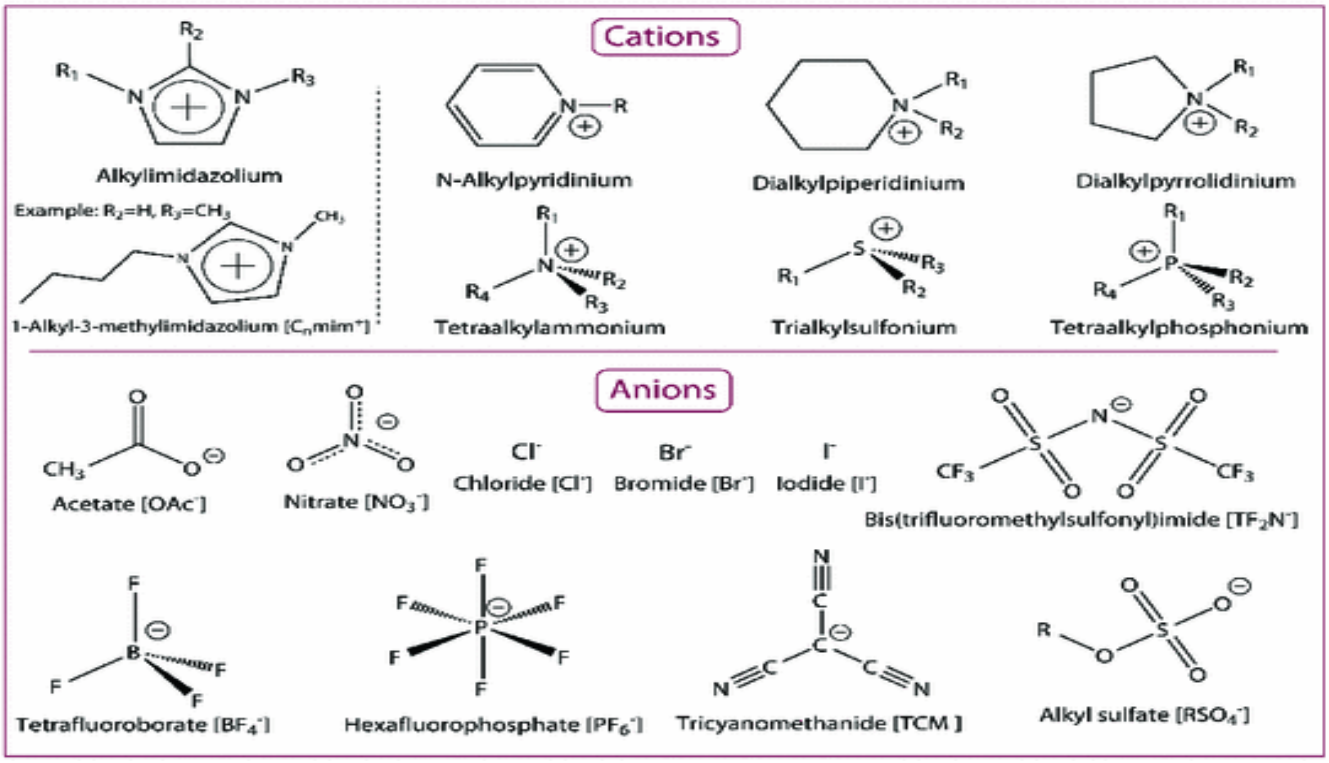


Figure: Some common Examples of Cations and Anions

2. Experimental Section

2.1 Chemicals and Materials:

1-Methylimidazole and 1-bromoethane were procured from Aldrich. Lithium bis(trifluoromethanesulfonyl)imide (LiTFSI) salt was acquired from TCI chemicals. Dichloromethane (DCM) and Ethyl Acetate were bought from Chemlabs and SD Fine Chem, respectively. Poly(ethylene glycol)methyl ether methacrylate (PEGMA) and 2-hydroxy-2 methylpropiophenone (HMPP) were purchased from Aldrich. Cellulose triacetate (CTA) was procured from Aldrich.Chloroform was procured from Thermo Fischer Scientific.

2.2 Synthesis of Ionic Liquid [EMIM][TFSI]

The ionic liquids studied in this paper are synthesized according to the previously reported literature procedure. The synthesis of [EMIM][TFSI]was carried out in two steps:

Step I: Quternization reaction

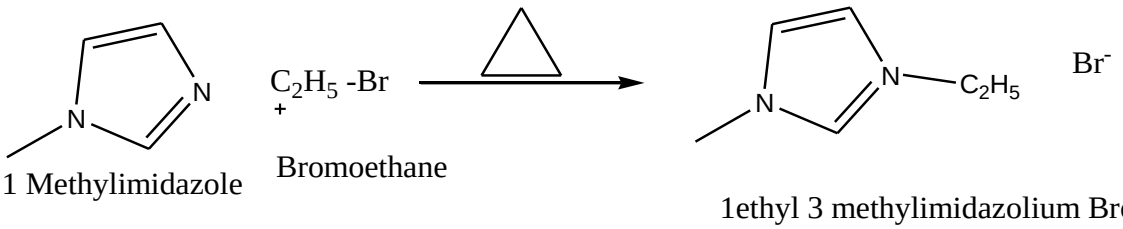
Synthesis of [EMIM][Br]

The synthesis of ionic liquid [EMIM][Br] were carried out of 1- Methyl imidazole 5g (60.90 m mol) and 1-Bromoethane 7.9 g (73.08 mmol) were taken at a ratio 1:1.2 in a round bottom flask. The mixture was then purged with argon gas to remove moisture. This mixture was then reflux at 70 ^{0}C for period of 3 h. The obtained product [EMIM][Br] was washed with ethyl acetate, and excessive solvent was evaporated by vacuum drying at about 70 - 100 ^{0}C.

Table 1: Observation Table

Chemicals	Molecular weight	Amount in (g)	mmoles	Equivalence
1-Methyl imidazole	82.10	5	60.90	1
1-Bromoethane	108.966	7.9	73.08	1.2

Reaction :-



1 Methylimidazole

Bromoethane

1ethyl 3 methylimidazolium Bromide

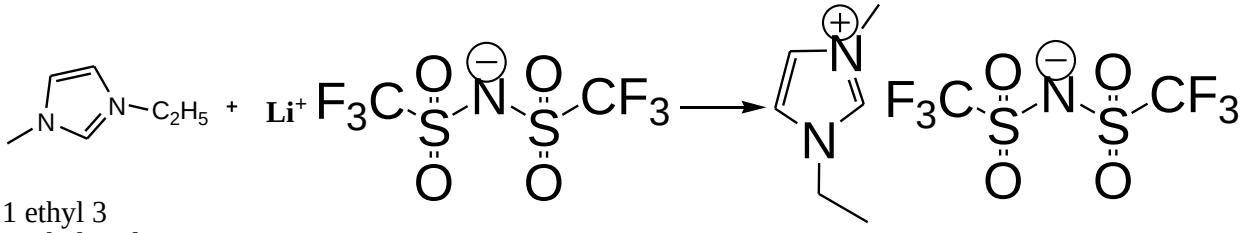
Step II: Metathesis

Synthesis [EMIM][TFSI]

A 5 g (26.16 m mol) of 1- Ethyl 3 methyl imidazolium bromide were mixed with 9.01g (31.40 mmol) LITFSI he ratio of 1:1.2 in distilled water and the reaction mixer was stirred continuously for 12 h. for 12h. Anion exchange reaction were occur by exchanging Br^- with TFSI anion to form hydrophobic [EMIM][TFSI]. Two layers were observed after the completion of reaction. The extraction of ionic liquids is carried out using dichloromethane and water system. The dichloromethane layer is separated and evaporates the dichloromethane using rota vapor. Finally the ionic liquids [EMIM][TFSI] is dried under reduced pressure at 60 ° C for 6 h in order to ensure the moisture free [EMIM][TFSI]. The characterization and their purities were determined by 1H NMR.

Chemicals	Molecular weight	Amount in (g)	Mmoles	Equivalence
1-Ethyl-3methyl imidazolium bromide	191.066	5	26.16	1
Li TFSI	287.08	9.01	31.40	1.2

Reaction :-



1 ethyl 3 methylimida zoliumBr

Li TFSI

1 ethyl 3 methylimidazolium bis(trifluoromethanesulfonyl)imide

Charcterisation :-

The synthesized ionic liquid was confirmed by ^{1}H NMR.

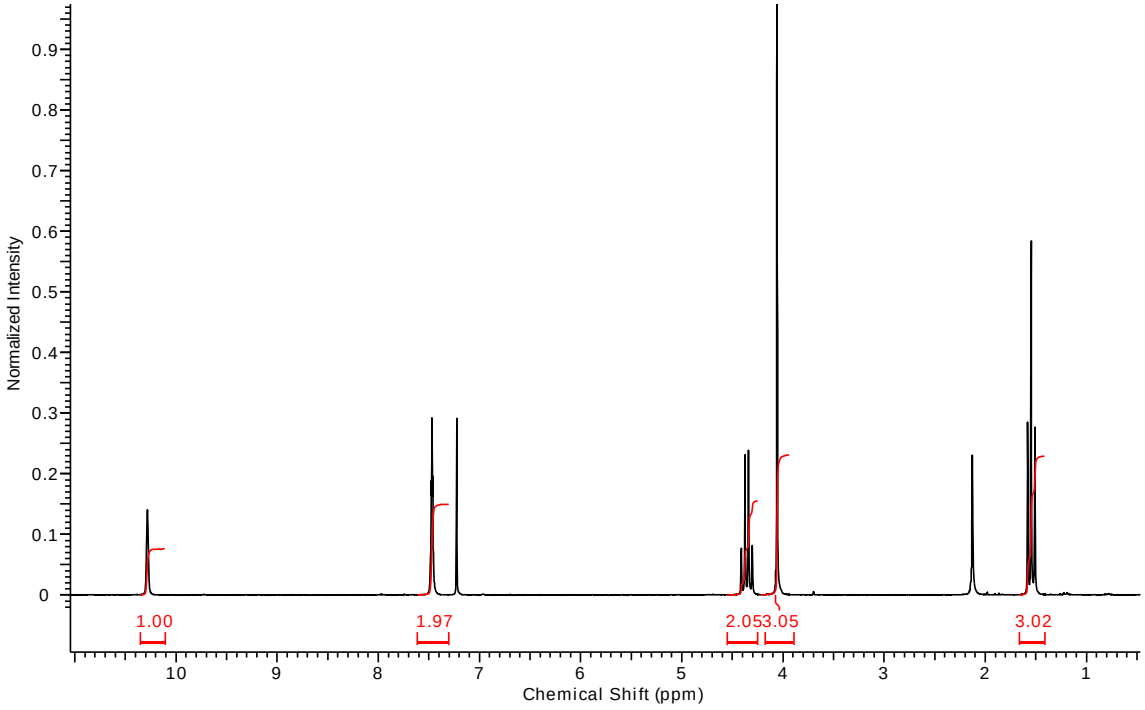


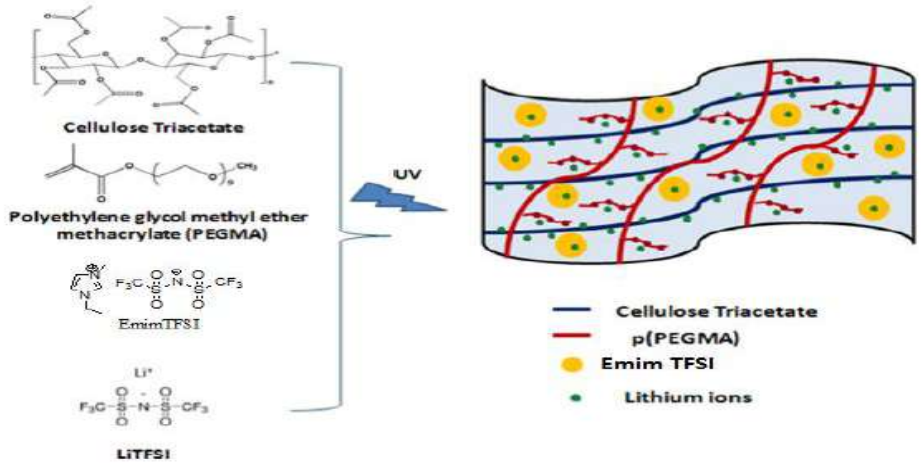
Figure: ^{1}H NMR for |[EMIM][TFSI] in CDCl3

2.3 Preparation of Electrolyte Membrane

To prepare a CTA-[EMIM][TFSI] membrane, the above synthesized ionic liquid was added to a polymer solution, the solution of PEGMA and CTA for w/w% ratio of 1:1.2 were dissolve in

chloroform with constant steering. To this mixture, 2 wt% HMPP with respect to the monomer was added, the subsequent homogeneous and clear solution was obtained followed by polymerization by exposing with UV light for 30 min. Afterward, 20 % [EMIM][TFSI] and LiTFSI Salt with respect to monomer were dissolve in chloroform. Finally, the mixture was decanted to the patri dish to evaporate the solvent slowly followed by vacuum dried at 80 ^{0}C.

Figure: Polymer electrolyte membrane of CTA and PEGMA incorporated with [EMIM][TFSI]



Scheme : Reaction Scheme for Polymer Synthesis and Available Sites for Lithium Coordination.

3. Fabrication of the Coin Cell

3.1 Cathode and Anode Preparation

The cathode slurry is prepared by mixing 80 wt % active material, here we have used $LiFePO_4$, 10 wt % PVDF and 10 wt % conducting carbon black in N-Methyl pyrrolidone (NMP) solvent. The slurry was further coated on aluminum foil and dried in vacuum oven at 120 °C. The uniform thickness of coating was further maintained using roll pressing the coated sheet and then 16 mm disk were cut and dried under vacuum. Here we have used Li foil as anode electrode. To prepare half cells, the |[EMIM][TFSI] electrolyte membrane was placed between the lithium foil (as Anode) and the above prepared $LiFePO_4$ (as Cathode) in a coin cell in glove box. All electrochemical measurements were carried out at 25 ^{0}C except the conductivity measurement.

3.2 Impedance Measurements:

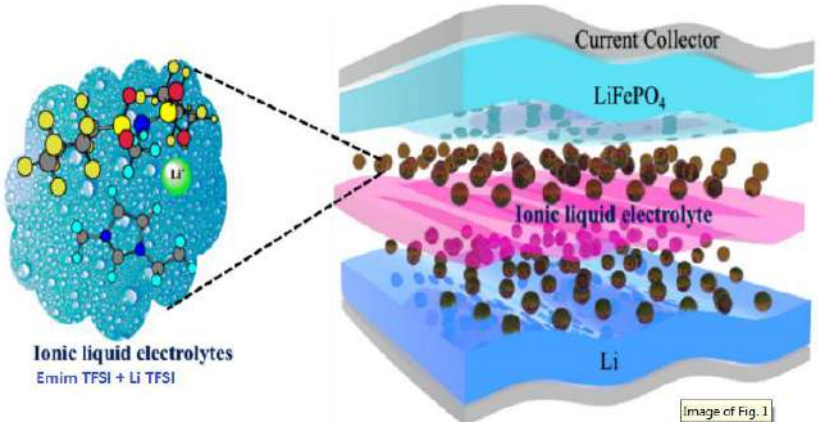
Electrochemical impedance spectroscopy (EIS) was used to determine the value of ionic conductivities for the [EMIM][TFSI] IL membrane at 25 ^{0}C. The [EMIM][TFSI] electrolyte membrane was squeezed between two stainless steel (SS) electrodes for measuring the impedance, in the frequency range of 0.1 Hz to 1.0 MHz and an AC potential amplitude of 10 mV. Li | membrane electrolyte | Li cell was fabricated and tested for change in impedance. At the same time, the electrolyte working potential of the membrane was tested between -1.0 and 6.0 V v/s Li/Li^+ using cycle voltametry at a scanning rate of 0.1 mVs^{-1} using stainless steel (SS) as the working electrode and lithium metal as the counter electrode. Galvanostatic charge-discharge testing and cyclic voltametry were performed on a $LiFePO_4$|[EMIM][TFSI] membrane|Li half cell with the potential window about 2.0-4.5 V using a battery cycle.

4. Result and Discussion

From Scheme 1 along with CTA and PEGMA, the ionic liquid |[EMIM][TFSI] and Li salt have been used to generate a solvent-free solid polymer electrolyte. It is well known that Li^+ ion coordination takes place principally in the amorphous domain; hence, CTA was blended with PEGMA. PEGMA has ethelene oxide pendent group similer to poly(ethelene glycol) and an acrylate end group that effectively solvate carbonate molecule and coordinate Lithium cation. The polar functional group in both polymers provide sample amount of Li^+ ion conducting sites backing them to transport through the hoping mechanism, which eventually improves ionic conductivity. The added ionic liquid |[EMIM][TFSI] produces a highly flexible and transparent solid polymer electrolyte.

Figure 2. Self Standing, transparent, flexible and twistable solid polymer electrolyte membranes

5. Elecrochemical Characterization.



Electrochemical Impedance Spectroscopy (EIS) was used to carry out ionic conductivity measurements of |[EMIM][TFSI] incorporated solid polymer electrolyte film. The solid polymer electrolyte membrane was positioned between two stainless steel electrodes. The lower voltage was applied of 0 V to 10mV AC potential amplitude within the 0.1 Hz to 1 MHz frequency range. The stability of solid polymer electrolyte with Li electrode was verified on Li|SPE|Li cell by impedance analysis. The ionic conductivity of the EmimIL membrane was calculated usin eq 1.

$$\sigma = \frac{l}{RA} \qquad \ldots \qquad (1)$$

Where σ, l, A, and R denotes the ionic conductivity, thickness of polymer membrane, area of electrode-electrolyte interface, and intercept of the real axis in Nyquist plot, respectively.

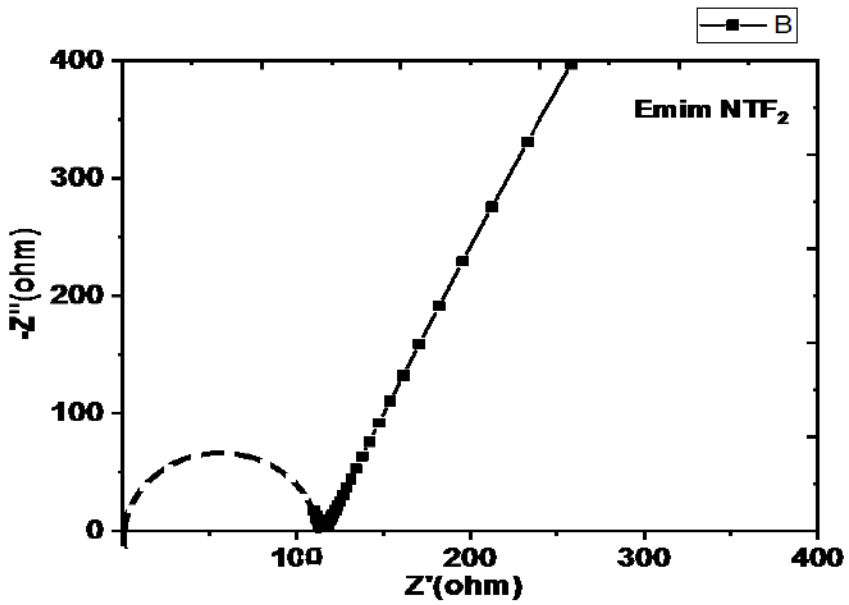


Figure : Impedance spectra

Here, thickness of polymer membrane (l)= 0.002 cm , R= 120 and Area of the electrode $A = \pi r^2$ where, we use 16 mm diameter electrode therefore (r) = 0.8 mm,

Therefore, $$\sigma = \frac{l}{RA}$$

$$\sigma = \frac{0.02}{120 \times 3.14 \times 0.8}$$

$$\sigma = 4.18 \times 10^{-4} \text{ S cm}^{-1}$$

The galvanostatic charge-discharge cycling assessments were executed on the LFP|SPE|Li half cell in the 2 - 4.5 V potential range, using a battery cycle at diverse current rates shows in next figures.

6. Li-ion battery performance

It is very important to have good cycling capability for the practical LIB application. The half-cell was fabricated with LFP as cathode material and lithium metal as an anode material with SPE as solide electrolyte as well as separator. The galvanostatic charge / discharge cycling assessments were done on LFP|LFE|Li cell within 2.0-4.3 V potential range, by battery cycler at different current rates.

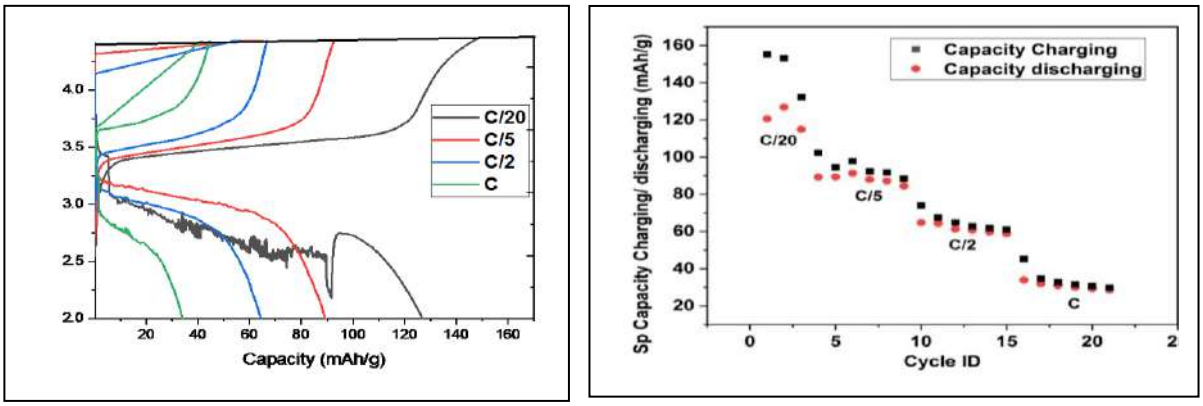


Figure: a) Galvanostatic charge−discharge profiles of Li/SPE/$LiFePO_4$. b) The rate performance of half cell at different C rates (0.05 C, 0.2C, 0.5C and 1C).

The cell was initially run for 20 cycles at 0.05C rate, where it displays good initial discharge capacity of 120 $mAhg^{-1}$ at 25 °C. After 20 cycles, the cell shows 75% of the initial discharge capacity (figure) Even after 20 cycles, a columbic efficiency of 95% was obtained, despite the capacity fading due to the reaction between the electrolyte and Li metal. This shows that SPE can afford excellent cycling performance even at 25°C. After initial 20 cycles, the cell was continued for 20 cycles with 0.2 C-rate, where observed capacity at 20^{h} cycle was 90 $mAhg^{-1.}$ The capacity fading is also slowed down after initial few cycles, suggesting a superior reversibility and stabilization of the system after few cycles. The discharge capacity of cell can be governed by current rates; it displays about 65 mAh g^{-1} at 0.5 C-rate and 25 $mAhg^{-1}$ discharge capacities at 1 C-

rates. This confirms the sustainability and robustness of SPE at higher current density. Therefore, the alternative to these solvents is specially designed ionic liquids and ionic liquids based solid electrolyte film with proper designing of ionic liquids, such material electrolyte could most potentially favorable battery applications. This ionic liquid with its with compatibility with polymers provides higher lithium ion conductivity and is proved to be a good alternative to traditional liquid electrolytes. The further study is undergoing for collecting additional data.

Conclusion

In conclusion, the imidazolium ionic liquids were successfully synthesized and characterized and further used as for the preparation of solid polymer electrolyte. The solid polymer electrolyte was prepared and used for Li ion battery. The Ionic conductivity is observed to for SPE at 25 was 4.18x 10^{-4} Scm^{-1}. Li-ion cell fabricated with SPE was run for cycling study at different C-rate. The observed capacity was 120 $mAhg^{-1}$ at 0.05 C at 1 C-rates while 25 $mAhg^{-1}$ observed for 1 C-rate. The outstanding cyclic performance even at ambient temperature compared to other liquid electrolyte may prove be excellent alternative for may applications.

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Photo Gallery

Glow Box

Cell Channels

Vaccume Oven

Glow Box

Synthesis of Emim NTF2

Transparent solid polymer electrolyte membrane

Li-ion battery Demonstration for e-vehicle

रयत शिक्षण संस्थेचे

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जावक क्र. २०१/२९/०९/२०२० दिनांक : २८/९/२०२०

प्रति,
मा.जिल्हा अधिक्षक,
कृषि अधिकारी (कृषि विभाग)
प्रेमदान हॉटेल चौक
सावेडी, अहमदनगर

विषय:– मृद व जल तपासणी प्रयोगशाळा सुरू करण्यास परवानगी मिळणेबाबत.

महोदय,

उपरोक्त विषयान्वये कळविण्यात येते की, आमच्या रा. ब. नारायणराव बोरावके महाविद्यालयामधील मृद व जल तपासणी प्रयोगशाळेची महाराष्ट्र शासनाच्या कृषि विभागामार्फत दिनांक १ सप्टेंबर २०१७ ते ३१ ऑगस्ट २०२० या कालावधीसाठी नोंदणी करण्यात आलेली होती. (नोंदणी क्रमांक जा.क्र./क/मृसमृचा/सोलापूर/अशा.नों/मृस.चा. ५१/२०१७, दिनांक १ सप्टेंबर २०१७).

सदर मृद व जल तपासणी प्रयोगशाळेत मृद व जल तपासणीसाठी आवश्यक असणा–या सुविधा उपलब्ध आहेत, तसेच या प्रयोगशाळेमार्फत सरकारी व खाजगी मृद व जल नमुने तपासण्यात आलेले आहेत. सदर मृदा व जल नमुने तपासणी सुविधा कार्यरत राहण्यासाठी आमच्या महाविद्यालयातील मृद व जल तपासणी प्रयोगशाळेस नव्याने परवानगी मिळावी, ही विनंती.

कळावे,

सोबत:– प्रस्ताव

आपला विश्वासू,

प्राचार्य,
रा.ब. नारायणराव बोरावके महाविद्यालय
श्रीरामपूर

29/9/2020
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Ref No. : PNY/2021/34 **Date: 15/01/2021**

To,

Akash Kishor Mhase

Sub. : Appointment for the Internship of Software Development.

Dear Sir,

This has reference to your application dated the 15 Jan, 2021 in connection with your Full-time employment as the Internship for Software Development in our establishment. We have pleasure to offer you full-time job in our establishment on the following Terms and Conditions:

1. Be it clearly understood and agreed that as a full-time employee, you will not have the status of an employee nor you will be entitled to the privileges/benefits available to other employees who are employed either on regular or temporary basis.
2. Your duty hours shall be from 10:00 AM to 5:00 PM which can be changed according to the convenience of the management and for extra work and purely as the sole discretion of the management.
3. You will be responsible for carrying out your work as assigned to you till entire satisfaction of the management.
4. You will be punctual and regular in your duties and will not be absent yourself without prior permission of the management.

www.poornayashinfotech.com
info@poornayashinfotech.com
9767216455, 9657173656

5. The management shall have every night to terminate your services at any time without assigning any reason therefore by giving you one week prior notice.

   In case the above terms and conditions of service are acceptable to you, please sign and return the carbon copy of the offer of appointment in token of your acceptance to the same.

Authorized Signature

DECLARATION

I have read and understood the above terms and conditions and agree to abide by the same.

Signature of the Candidate

RITZZ INFOTECH

Web Development | Mobile App Development | Ecommerce Solution | Desktop Application | Bulk SMS Service | IT Service and Support | Cloud Database Solution

Main Road, Shrirampur, Ahmednagar - 413709
Mobile : +91 9422747674
Email : Contact.ritzzinfotech@gmail.com
web : www.Ritzzinfotech.co.in

Date : 15/7/2021

Internship Completion Certificate

This is certify that ***Miss. Kanchan Vidyadhar Kukade*** . a student of MCS Department of Computer Science, R.B.N.B. College, Shrirampur has successfully completed her internship as **"Android Developer"** in our organization Starting from Feb-2021 to July-2021 at **Ritzz Infotech.**

We wish her all the best for future endeavour.

Miss . Kanchan Vidyadhar Kukade

Kukadek.v.

Name and Sign of student

Ritzz Infotech

RITZZ INFOTECH

Name and sign of company project guide
With company stamp

RITZZ INFOTECH

Web Development | Mobile App Development | Ecommerce Solution | Desktop application
Bulk SMS Service | IT Service and Support | Cloud Database Solution

Main Road, Shrirampur, Ahmednagar - 413709
Mobile : +91 9422747674
Email : Courier.ritzzinfotech@gmail.com
Web : www.ritzzinfotech.co.in

Miss. Anuja Vijay Nawale

Date: 15/02/2021

Re : Appoint as a Internship

Dear Anuja,

I am pleased to offer you an educational internship at Ritzz Infotech as an **Android developer** intern. As we discussed, you will be scheduled to intern approximately six month and your internship will begin on **15 Feb 2021** and will end on or around **15 July 2021**.

Because this is internship, you may discontinue the internship at any time for any reason, and Ritzz Infotech may discontinue the internship for any reason not prohibited by law.
There is no guarantee of continues employment because of your volunteer work with us.

As an intern, you will not be a company employee. Therefore, you will not receive a salary, wages, or other compensation. In addition, you will not be eligible for any of the employee benefit that company employee are entitled to, include but not limited to, health insurance, vacation or sick leave, paid holiday, or participation in Ritzz Infotech retirement plan.

During your internship you may come across confidential business information. In addition, upon conclusion of your internship, you must return all company-owned property, equipment, and documents, including electronic mail or other information.

We are very excited about the prospect of you joining our team and staff as an intern at Ritzz Infotech we look forward to helping you continue your education outside the classroom.

For Ritzz Infotech

RITZZ INFOTECH

Authorized Signature

My signature below indicates my acceptance of the offer as outlines above.

Miss. Anuja Vijay Nawale	Nawale	15/02/2021
Name	Signature	Date

OMVSAB IT SOLUTION

Ref: OmVSab IT Solution/HRD/2021Reg.No.PN0187992 **Date: 29/01/2021**

To,

Miss.Nikita Kote

Subject: Appointment As "an intern Software Developer"

Dear Miss. Nikita Kote

Congratulations! With reference to your interview with us, we are pleased to appoint you as an **"intern Software Developer"**– on terms and conditions given below.

1. General :

a) This appointment offer is made for work at our Pune office. Your services can be transferred to any department where needed.

b) Your joining date should not be later than 1st February 2021.

c) Probation Period: You will be put on Probation for period of Five (5) months from the date of joining. Your probation period may be extended at the sole discretion of the management. On completion of probation you will be confirmed in the service.

d) Notice Period:

i) During probation period, a notice of 7 days in writing will be required to be given by either party before the employment can be terminated

ii) If a confirmed employee resigns from his/her position 1 year or earlier from the date of confirmation the notice period stays the same as of now i.e. 7 days.

iii) If a confirmed employee resigns from his/her position 1 year and 1 day or higher from the date of confirmation the **notice period will be 7days**,but it is negotiable.

e) Increment and Promotion: Your growth and increment in salary will depends solely on your performance and contribution to the company.

f) You will not disclose any information about the company to anybody outside without permission of the management.

g) Your Appointment is based on the facts mentioned in your application and the correctness of the documents produced. If it is found incorrect, your services will stand terminated automatically.

2. Working Days, Holidays and Leave:

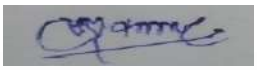
Company normally works for Six days a week and Nine hours a day including 45 minute Lunch break. Company observes Sunday as a compulsory weekly off day and second and fourth Saturday as holidays. The Company reserves right to make changes in the rules.

4.Leave:

Leave during Probation: you will get 1 day paid leave per month during your probation period.

Leave after Confirmation: you are entitled for 7 days Casual Leave and 15 days Paid Leave per calendar year. Please return the duplicate hereof, duly signed as a token of your acceptance of the offer. We are confident that you will have a long and mutually rewarding career with us.

Yours truly,



Managing Director

For OmVSab IT Solution

FourTH-D
Directing Towards Excellence

Date: 11/06/2021

Near Airtel Tower, Newasaphata, Tel-Newasa, Dist-Ahmednagar-414603 (MH)

Internship Offer Letter

Dear **Ashwini Nedre,**

RBNB,Shrirampur

FourTH-D SYSTEMS is pleased to offer you Educational Internship as an "IT Intern."

Request you to find following confirmation specifics of your internship.

Position Title: IT Intern

Duration: 15th June 2021 to 15th Dec 2021

No of Workdays/ week: 6 (8 Hrs. / Day)

Week Off: Sunday

Stipend: NIL

Work Location: Work from Home

You Shall Report to FourTH-D official through Google Meet on 15th June 2021 at 11 a.m.

- In case Information furnished by you found false, your services will be liable for termination without any Notice.
- During your training period of Internship, if you found breaking disciplinary rules or in case of any misconduct, your services will be terminated with immediate effect as per company policy.
- You should not divulge any particular, details or confidential information of company.

Sincerely,

Sandesh Thole

Director-Operations

FourTH-D SYSTEMS

Web Development | Mobile App Development | Ecommerce Solution | Desktop Application | Bulk SMS Service | IT Service and Support | Cloud Database Solution

RITZZ INFOTECH

Main Road, Shrirampur, Ahmednagar - 413709
Mobile : +91 9422747674
Email : Contact.ritzzinfotech@gmail.com
web : www.Ritzzinfotech.co.in

Miss. Vrushali Bhagwan Bhosale

Date: 15/02/2021

Re : Appoint as a Internship

Dear Vrushali,

I am pleased to offer you an educational internship at Ritzz Infotech as an **Node.js developer** intern. As we discussed, you will be scheduled to intern approximately six month and your internship will begin on **15 Feb 2021** and will end on or around **15 July 2021**.

Because this is internship, you may discontinue the internship at any time for any reason, and Ritzz Infotech may discontinue the internship for any reason not prohibited by law. There is no guarantee of continues employment because of your volunteer work with us.

As an intern, you will not be a company employee. Therefore, you will not receive a salary, wages, or other compensation. In addition, you will not be eligible for any of the employee benefit that company employee are entitled to, include but not limited to, health insurance, vacation or sick leave, paid holiday, or participation in Ritzz Infotech retirement plan.

During your internship you may come across confidential business information. In addition, upon conclusion of your internship, you must return all company-owned property, equipment, and documents, including electronic mail or other information.

We are very excited about the prospect of you joining our team and staff as an intern at Ritzz Infotech we look forward to helping you continue your education outside the classroom.

For Ritzz Infotech

RITZZ INFOTECH

Authorized Signature

My signature below indicates my acceptance of the offer as outlines above.

Miss. Vrushali Bhagwan Bhosale _____ _____

Name Signature Date

FourTH-D
Directing Towards Excellence

Date: 11/06/2021

Near Airtel Tower, Newasaphata, Tel-Newasa, Dist-Ahmednagar-414603 (MH)

Internship Offer Letter

Dear **Dhanashree Bhavar,**

RBNB,Shrirampur

FourTH-D SYSTEMS is pleased to offer you Educational Internship as an "IT Intern."

Request you to find following confirmation specifics of your internship.

Position Title: IT Intern

Duration: 15th June 2021 to 15th Dec 2021

No of Workdays/ week: 6 (8 Hrs. / Day)

Week Off: Sunday

Stipend: NIL

Work Location: Work from Home

You Shall Report to FourTH-D official through Google Meet on 15th June 2021 at 11 a.m.

- In case Information furnished by you found false, your services will be liable for termination without any Notice.
- During your training period of Internship, if you found breaking disciplinary rules or in case of any misconduct, your services will be terminated with immediate effect as per company policy.
- You should not divulge any particular, details or confidential information of company.

Sincerely,

Sandesh Thole

Director-Operations

FourTH-D SYSTEMS

FourTH-D
Directing Towards Excellence

Date: 11/06/2021

Near Airtel Tower, Newasaphata, Tel-Newasa, Dist-Ahmednagar-414603 (MH)

Internship Offer Letter

Dear **Mayuri Bhavsar,**

RBNB,Shrirampur

FourTH-D SYSTEMS is pleased to offer you Educational Internship as an "IT Intern."

Request you to find following confirmation specifics of your internship.

Position Title: IT Intern

Duration: 15th June 2021 to 15th Dec 2021

No of Workdays/ week: 6 (8 Hrs. / Day)

Week Off: Sunday

Stipend: NIL

Work Location: Work from Home

You Shall Report to FourTH-D official through Google Meet on 15th June 2021 at 11 a.m.

- In case Information furnished by you found false, your services will be liable for termination without any Notice.
- During your training period of Internship, if you found breaking disciplinary rules or in case of any misconduct, your services will be terminated with immediate effect as per company policy.
- You should not divulge any particular, details or confidential information of company.

Sincerely,

Sandesh Thole

Director-Operations

FourTH-D SYSTEMS

idelta
www.idelta.online

Android Developer (UX & Backend) Job Offer Letter

Date: 17/03/2021

Miss Pooja Pathak
Bhosalewadi Post-Umbergaon
Shrirampur - 143715

Dear Pooja,

We are pleased to offer you the full-time position of **Android Developer (UX & Backend)** at iDelta system with a start date of March 22 , 2021, contingent upon a background check and completion of the all the interview process. Mr Prashant Gangurde at Pune will be your primary contact and manager on site. It is in our opinion that your abilities and experience will be the perfect fit for our company.

In this role, you will develop the Android Applications for UX and service design for our products, from scratch to go-live and beyond, you will be a driving force behind our user-centric, hypothesis-driven product development, you bring your extensive in UX design methodology and your creative ideas

The starting annual salary for this position is Rs. 10, 500/- to be paid on a monthly basis by direct deposit starting on April 22, 2021. Your working hours would be Monday to Saturday from Morning 10:00 AM to 6:00PM.
(1:00 PM to 2:00 PM Lunch Hours)

idelta
www.idelta.online

Your employment with idelta System will be on an at-will basis, which means you and the company are free to terminate the employment relationship at any time for any reason. This letter is not a contract or guarantee of employment for a definite amount of time. (Source: Indeed)

As an employee of idelta System, you are also eligible for our benefits program, which includes Free Accommodation at Company site and 20 Paid leaves annually.

By signing and returning this letter you will confirm your acceptance of the offer. Please respond to the email by accepting the same.

We look forward to having you on our team! If you have any questions, please feel free to reach out at your earliest convenience.

Sincerely,

Prashant Gangurde
(iDelta Systems)
Rh No.1, Solitaire Park,
New D P Road, Aundh,
Pune-411007

DISHA INFOTECH PVT. LTD.

Pandurang Complex, Laltaki Road, Near Kamal Motors.
Ahmednagar.-414 001,Phone:-0241-2430919.

Date : 28 /06 /2021

Pratiksha Kalyan Ude
A/P-Khele Kajli. Tal-Newasa. Dist-Ahmednagar.

Subject - Application for Trainee Software Developer.

Dear,Pratiksha Ude,
We are in receipt of your application for the post of **Trainee Software Developer**. We are pleased to inform you that our organization has found you eligible for the profile described.You are requested to report at our office as per address given below at 9:00AM on 28/06/2021 in approval to appointment.

Pandurang Complex,Laltaki Road,
Near Kamal Motors,Ahmednagar-414001

As per our company policy, you will be on contract for a period of 6 month and then, based on your Performance and review you will be taken to the level of employment in the organization.
We hope to have a long successful professional with you and wish you all the very best.

Thanking you.

Project Manager.
Disha Infotech Pvt,LTD.
Ahmednagar.

FourTH-D
Directing Towards Excellence

Date: 11/06/2021

Near Airtel Tower, Newasaphata, Tel-Newasa, Dist-Ahmednagar-414603 (MH)

Internship Offer Letter

Dear **Priyanka Rashinkar,**

RBNB,Shrirampur

FourTH-D SYSTEMS is pleased to offer you Educational Internship as an "IT Intern."

Request you to find following confirmation specifics of your internship.

Position Title: IT Intern

Duration: 15th June 2021 to 15th Dec 2021

No of Workdays/ week: 6 (8 Hrs. / Day)

Week Off: Sunday

Stipend: NIL

Work Location: Work from Home

You Shall Report to FourTH-D official through Google Meet on 15th June 2021 at 11 a.m.

- In case Information furnished by you found false, your services will be liable for termination without any Notice.
- During your training period of Internship, if you found breaking disciplinary rules or in case of any misconduct, your services will be terminated with immediate effect as per company policy.
- You should not divulge any particular, details or confidential information of company.

Sincerely,

Sandesh Thole

Director-Operations

FourTH-D SYSTEMS

Web Development | Mobile App Development | Ecommerce Solution | Desktop Application | Bulk SMS Service | IT Service and Support | Cloud Database Solution

RITZZ INFOTECH

Main Road, Shrirampur, Ahmednagar - 413709
Mobile : +91 9422747674
Email : Contact.ritzzinfotech@gmail.com
web : www.Ritzzinfotech.co.in

Miss. Rupali Dipak Naik

Date: 15/02/2021

Re : Appoint as a Internship

Dear Rupali,

I am pleased to offer you an educational internship at Ritzz Infotech as an **Node.js developer** intern. As we discussed, you will be scheduled to intern approximately six month and your internship will begin on **15 Feb 2021** and will end on or around **15 July 2021**.

Because this is internship, you may discontinue the internship at any time for any reason, and Ritzz Infotech may discontinue the internship for any reason not prohibited by law. There is no guarantee of continues employment because of your volunteer work with us.

As an intern, you will not be a company employee. Therefore, you will not receive a salary, wages, or other compensation. In addition, you will not be eligible for any of the employee benefit that company employee are entitled to, include but not limited to, health insurance, vacation or sick leave, paid holiday, or participation in Ritzz Infotech retirement plan.

During your internship you may come across confidential business information. In addition, upon conclusion of your internship, you must return all company-owned property, equipment, and documents, including electronic mail or other information.

We are very excited about the prospect of you joining our team and staff as an intern at Ritzz Infotech we look forward to helping you continue your education outside the classroom.

For Ritzz Infotech

RITZZ INFOTECH

Authorized Signature

My signature below indicates my acceptance of the offer as outlines above.

Miss. Rupali Dipak Naik — Rupali — 15-02-21

Name — Signature — Date

FourTH-D
Directing Towards Excellence

Date: 11/06/2021

Near Airtel Tower, Newasaphata, Tel-Newasa, Dist-Ahmednagar-414603 (MH)

Internship Offer Letter

Dear **Sayali Gaikwad,**

RBNB,Shrirampur

FourTH-D SYSTEMS is pleased to offer you Educational Internship as an "IT Intern."

Request you to find following confirmation specifics of your internship.

Position Title: IT Intern

Duration: 15th June 2021 to 15th Dec 2021

No of Workdays/ week: 6 (8 Hrs. / Day)

Week Off: Sunday

Stipend: NIL

Work Location: Work from Home

You Shall Report to FourTH-D official through Google Meet on 15th June 2021 at 11 a.m.

- In case Information furnished by you found false, your services will be liable for termination without any Notice.
- During your training period of Internship, if you found breaking disciplinary rules or in case of any misconduct, your services will be terminated with immediate effect as per company policy.
- You should not divulge any particular, details or confidential information of company.

Sincerely,

Sandesh Thole

Director-Operations

FourTH-D SYSTEMS

idelta
www.idelta.online

Android Developer (UX & Backend) Job Offer Letter

Date: 17/03/2021

Miss Sheefa Pathan
College Road, Opp. Court
Shrirampur - 143709

Dear Sheefa,

We are pleased to offer you the full-time position of **Android Developer (UX & Backend)** at iDelta system with a start date of March 22, 2021, contingent upon a background check and completion of the all the interview process. Mr Prashant Gangurde at Pune will be your primary contact and manager on site. It is in our opinion that your abilities and experience will be the perfect fit for our company.

In this role, you will develop the Android Applications for UX and service design for our products, from scratch to go-live and beyond, you will be a driving force behind our user-centric, hypothesis-driven product development, you bring your extensive in UX design methodology and your creative ideas

The starting annual salary for this position is Rs. 13, 800/- to be paid on a monthly basis by direct deposit starting on April 22, 2021. Your working hours would be Monday to Saturday from Morning 10:00 AM to 6:00PM.
(1:00 PM to 2:00 PM Lunch Hours)

idelta
www.idelta.online

Your employment with idelta System will be on an at-will basis, which means you and the company are free to terminate the employment relationship at any time for any reason. This letter is not a contract or guarantee of employment for a definite amount of time. (Source: Indeed)

As an employee of idelta System, you are also eligible for our benefits program, which includes Free Accommodation at Company site and 20 Paid leaves annually.

By signing and returning this letter you will confirm your acceptance of the offer. Please respond to the email by accepting the same.

We look forward to having you on our team! If you have any questions, please feel free to reach out at your earliest convenience.

Sincerely,

Prashant Gangurde
(iDelta Systems)
Rh No.1, Solitaire Park,
New D P Road, Aundh,
Pune-411007

FourTH-D
Directing Towards Excellence

Date: 11/06/2021

Near Airtel Tower, Newasaphata, Tel-Newasa, Dist-Ahmednagar-414603 (MH)

Internship Offer Letter

Dear **Shraddha Magar,**

RBNB,Shrirampur

FourTH-D SYSTEMS is pleased to offer you Educational Internship as an "IT Intern."

Request you to find following confirmation specifics of your internship.

Position Title: IT Intern

Duration: 15th June 2021 to 15th Dec 2021

No of Workdays/ week: 6 (8 Hrs. / Day)

Week Off: Sunday

Stipend: NIL

Work Location: Work from Home

You Shall Report to FourTH-D official through Google Meet on 15th June 2021 at 11 a.m.

- In case Information furnished by you found false, your services will be liable for termination without any Notice.
- During your training period of Internship, if you found breaking disciplinary rules or in case of any misconduct, your services will be terminated with immediate effect as per company policy.
- You should not divulge any particular, details or confidential information of company.

Sincerely,

Sandesh Thole

Director-Operations

FourTH-D SYSTEMS

FourTH-D
Directing Towards Excellence

Date: 11/06/2021

Near Airtel Tower, Newasaphata, Tel-Newasa, Dist-Ahmednagar-414603 (MH)

Internship Offer Letter

Dear **Venu Ghodake,**

RBNB,Shrirampur

FourTH-D SYSTEMS is pleased to offer you Educational Internship as an "IT Intern."

Request you to find following confirmation specifics of your internship.

Position Title: IT Intern

Duration: 15th June 2021 to 15th Dec 2021

No of Workdays/ week: 6 (8 Hrs. / Day)

Week Off: Sunday

Stipend: NIL

Work Location: Work from Home

You Shall Report to FourTH-D official through Google Meet on 15th June 2021 at 11 a.m.

- In case Information furnished by you found false, your services will be liable for termination without any Notice.
- During your training period of Internship, if you found breaking disciplinary rules or in case of any misconduct, your services will be terminated with immediate effect as per company policy.
- You should not divulge any particular, details or confidential information of company.

Sincerely,

Sandesh Thole

Director-Operations

FourTH-D SYSTEMS

Completion certificate:

TO

Patni Shivani Prakash
Shivaji Road, Surkamal Niwas , Ward No.3,
Shrirampur , PIN 413709 Dist - Ahmednager
MOB - +91 8146670758

Date:15/7/2021

Intership Completion Certificate

This is certify that Miss.Patni Shivani Prakash a student of Mcs Department of Computer Sciences,R.B.N.B college .Shrirampur has successfully completed her intership as "Android Developer"in our Oraganization starting from Feb-2021 to July- 2021 at Vidya Infotech.

"We wish good luck for your career!"

For Vidya Infotech

www.vidyainfotech.in
Mobile +91 8421460760

Authorized Signatory

Ref No. : WSPL/2021/10 **Date: 02/01/2021**

To,

Amir Abdulaziz Shaikh

Sub. : Appointment for the Internship of Software Development.

Dear Sir,

This has reference to your application dated the 01 Jan, 2021 in connection withyour Full-time employment as the Internship for Software Development in our establishment. We have pleasure to offer you full-time job in our establishment on thefollowing Terms and Conditions:

1. Be it clearly understood and agreed that as a full-time employee, you will not have thestatus of an employee nor you will be entitled to the privileges/benefits available to other employees who are employed either on regular or temporary basis.
2. Your duty hours shall be from 10:00 AM to 5:00 PM which can be changed accordingto the convenience of the management and for extra work and purely as the sole discretion of the management.
3. You will be responsible for carrying out your work as assigned to you till entire satisfaction of the management.
4. You will be punctual and regular in your duties and will not be absent yourself without prior permission of the management.

5. The management shall have every right to terminate your services at any time without assigning any reason therefore by giving you one week prior notice.

In case the above terms and conditions of service are acceptable to you, please sign and return the carbon copy of the offer of appointment in token of your acceptance to the same.

Authorized Signature

DECLARATION

I have read and understood the above terms and conditions and agree to abide by the same.

Signature of the Candidate

RITZZ INFOTECH

Web Development | Mobile App Development | Framework Solution | Desktop Application
Multi SMS Service | IT Service and Support | Cloud Database Solution

Main Road, Shrirampur, Ahmednagar 413709
Mobile : +91 9422747674
Email : Contact.ritzzinfotech@gmail.com
web : www.ritzzinfotech.co.in

Date : 15/7/2021

Internship Completion Certificate

This is certify that ***Miss. Snehal Ashok Taksal***. a student of MCS Department of Computer Science, R.B.N.B. College, Shrirampur has successfully completed her internship as **"Android Developer"** in our organization Starting from Feb-2021 to July-2021 at **Ritzz Infotech.**

We wish her all the best for future endeavour.

Miss . Snehal Ashok Taksal

Name and Sign of student

Ritzz Infotech

RITZZ INFOTECH SHRIRAMPUR

Name and sign of company project guide
With company stamp

Web Development | Mobile App Development | Ecommerce Solution | Desktop Application | Bulk SMS Service | IT Service and Support | Cloud Database Solution

RITZZ INFOTECH

Main Road, Shrirampur, Ahmednagar - 413709
Mobile : +91 9422747674
Email : Contact.ritzzinfotech@gmail.com
web : www.Ritzzinfotech.co.in

Miss. Siddhi Narendra Varma

Date: 15/02/2021

Re : Appoint as a Internship

Dear Siddhi,

I am pleased to offer you an educational internship at Ritzz Infotech as an **Node.js developer** intern. As we discussed, you will be scheduled to intern approximately six month and your internship will begin on **15 Feb 2021** and will end on or around **15 July 2021**.

Because this is internship, you may discontinue the internship at any time for any reason, and Ritzz Infotech may discontinue the internship for any reason not prohibited by law. There is no guarantee of continues employment because of your volunteer work with us.

As an intern, you will not be a company employee. Therefore, you will not receive a salary, wages, or other compensation. In addition, you will not be eligible for any of the employee benefit that company employee are entitled to, include but not limited to, health insurance, vacation or sick leave, paid holiday, or participation in Ritzz Infotech retirement plan.

During your internship you may come across confidential business information. In addition, upon conclusion of your internship, you must return all company-owned property, equipment, and documents, including electronic mail or other information.

We are very excited about the prospect of you joining our team and staff as an intern at Ritzz Infotech we look forward to helping you continue your education outside the classroom.

For Ritzz Infotech

RITZZ INFOTECH SHRIRAMPUR

Authorized Signature

My signature below indicates my acceptance of the offer as outlines above.

Miss. Siddhi Narendra Varma — Siddhi — 15-2-2021

Name — Signature — Date

2021/6/23 18:53

DISHA INFOTECH PVT. LTD.

Pandurang Complex, Laltaki Road, Near Kamal Motors.
Ahmednagar.-414 001,Phone:-0241-2430919.

Date : 10/02 /2021

ZINE KALYANI VIJAY
A/P-Shrirampur. Tal-Shrirampur. Dist-Ahmednagar.

Subject - Application for Trainee Software Developer.

Dear,Zine Kalyani Vijay,
We are in receipt of your application for the post of **Trainee Software Developer**. We are pleased to inform you that our organization has found you eligible for the profile described.You are requested to report at our office as per address given below at 9:00AM on 10/02/2021 in approval to appointment.

Pandurang Complex,Laltaki Road,
Near Kamal Motors,Ahmednagar-414001

As per our company policy, you will be on contract for a period of 6 month and then, based on your Performance and review you will be taken to the level of employment in the organization.
We hope to have a long successful professional with you and wish you all the very best.

Thanking you.

Project Manager.
Disha Infotech Pvt,LTD.
Ahmednagar.

रयत शिक्षण संस्थेचे

रा.ब.नारायणराव बोरावके कॉलेज

श्रीरामपूर पिन – ४१३ ७०९, जि. अहमदनगर

Affiliated to Savitribai Phule Pune University
[(Id.No. PU/AN/AS/02/(1960)](Jr./HSC/ Id.No.J - 12.14001)

NAAC Re- accredited 'A' Grade
ISO- 9001-2008

स्थापना : १९६०

डॉ. के.एच.शिंदे
एम.ए. एम.फिल.,पीएच.डी.
प्राचार्य

संस्थापक
पद्मभूषण डॉ.कर्मवीर भाऊराव पाटील डि.लिट्.

जावक क्र. १००५/१६-१७

दिनांक ६/१२/२०१६

प्रती,
मा.प्राचार्य,
अगस्ती कला,वाणिज्य व दादासाहेब रुपवते विज्ञान महाविद्यालय
अकोले.

विषय:- डॉ.चोळके एस.पी.यांना Ph.D. मार्गदर्शक म्हणून आपल्या अभ्यासकेंद्रात परवानगी मिळणेबाबत.

महोदय,

आमच्या महाविद्यालयाचे प्रा.डॉ.चोळके एस.पी.यांना पुणे विद्यापीठाने Ph.D. मार्गदर्शक म्हणून मान्यता दिली आहे.तरी आपल्या महाविद्यालयातील भूगोल विषयाच्या अभ्यासकेंद्रात मार्गदर्शक म्हणून काम करू देण्याची अनुमती द्यावी.

कळावे, हि विनंती.

आपला विश्वासू,

प्राचार्य
रा. ब. नारायणराव बोरावके कॉलेज
श्रीरामपूर

Akole Taluka Education Society's

AGASTI ARTS, COMMERCE & DADASAHEB RUPWATE SCIENCE COLLEGE, AKOLE

A/p. Tal. Akole, Dist. Ahmednagar, Pin - 422 601 (Maharashtra)

Pune University Best College Award First Prize Winner - 2007

NAAC Accredited : 'A' Grade

Dr. Sanjay Takate
I/c. Principal

O.No.AC/SR/773 /2017 Dt.09/03/2017

To,
Dr. S. P. Cholake,
R.B. Narayanrao Borawake College,
Shrirampur,
Tal. Shrirampur, Dist. Ahmednagar -413709

Subject :- Association as a Research Guide..

Sir,

It gives me pleasure to inform you that your application for 'Association' as a Research Guide with Post – Graduate Research Centre in Geography of our college has been accepted. We will allot you research students for Ph.D. Degree through admission process of Savitribai Phule Pune University of Pune.

With best regards,

(Dr. Sanjay Takate)
PRINCIPAL,
AGASTI ARTS, COMM. & DADASAHEB RUPWATE SCIENCE COLLEGE, AKOLE

Copy to,
The Principal,
R.B. Narayanrao Borawake College, Shrirampur,
Tal. Shrirampur, Dist. Ahmednagar

Rayat Shikshan Sanstha`s

R.B.Narayanrao Borawake College

Shrirampur - 413 709, Dist. Ahmednagar.

Affiliated to Savitribai Phule Pune University

[(Id.No. PU/AN/AS/02/(1960)](Jr./HSC/Id.No.J - 12.14.001)

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"Education through self help is our motto" - KARMAVEER

स्थापना : १९६०

Dr. K.H. Shinde

Principal

M.A., M.Phil., Ph.D.

Founder

Padmabhushan Dr. Karmaveer Bhaurao Patil D.Litt.

☎ Offi. : 02422 222347, Resi. : 02422 222072, Fax : 02422-222472 E-mail ID : rbnbcollege@gmail.com Web : www.rbnbcollege

Ref. No. Byhand /2020-21

Date : 20/06/2020

To,

Hon. Dr. Sunil Unde

M.D. Psychiatry,

Unde Hospital, Shrirampur

Sub: Permission for the Case Studies of Patient

Respected Sir,

With reference to the above subject, the students of M.A. Psychology (Clinical Psychology) have to do a case study project, run under the Savitribai Phule Pune University, Pune. It is a crucial part of the syllabus. So we request you to give permission for the case study project and guide them and do the needful.

Thanking you

Yours faithfully

Head

Department of Psychology

R.B.N. Borawake College

Shrirampur

Principal

R.B.N. Borawake College

Shrirampur

Rayat Shikshan Sanstha`s

R.B.Narayanrao Borawake College

Shrirampur - 413 709, Dist. Ahmednagar.

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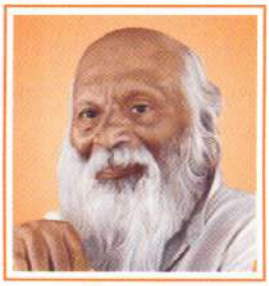
स्थापना : १९६०

Dr. K.H. Shinde
Principal
M.A., M.Phil., Ph.D.



Founder
Padmabhushan Dr. Karmaveer Bhaurao Patil D.Litt.

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Ref. No. By hand / 2020-21

Date : 20/06/2020

To,
Hon. Dr. Sanket Mundada
M.D. Psychiatry,
Namrata Hospital, Shrirampur

Sub: Permission for the Case Studies of Patient

Respected Sir,

With reference to the above subject, the students of M.A. Psychology (Clinical Psychology) have to do a case study project, run under the Savitribai Phule Pune University, Pune. It is a crucial part of the syllabus. So we request you to give permission for the case study project and guide them and do the needful.

Thanking you

Allotted

Yours faithfully

Head
Department of Psychology
R.B.N. Borawake College
Shrirampur

Principal
R.B.N. Borawake College
Shrirampur

"Education through self help is our motto" - KARMAVEER
Estd. 1960

Dr. K.H.Shinde
Principal
M.A., M.phil.,Ph.D

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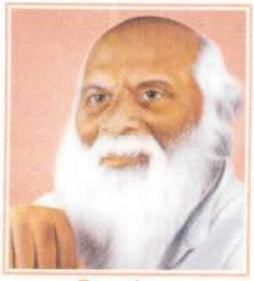

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Ref. No. By hand / 2020-21

Date : 20/06/2020

To,

Hon. Dr. Mohan Sahastrabuddhe

M.D. Psychiatry, Shrirampur

Sub: Permission for the Case Studies of Patient

Respected Sir,

With reference to the above subject, the students of M.A. Psychology (Clinical Psychology) have to do a case study project, run under the Savitribai Phule Pune University, Pune. It is a crucial part of the syllabus. So we request you to give permission for the case study project and guide them and do the needful.

Thanking you

Yours faithfully

Principal
R.B.N. Borawake College
Shrirampur

Head
Department of Psychology
R.B.N. Borawake College
Shrirampur

Permission granted

Dr. Mohan Sahasrabudhe
M.D.(Psychiatry)
Reg.No. 48049