



# Criterion-1: Curricular Aspects

Key Indicator – 1.3: Curriculum Enrichment

**Metric: 1.3.3**

## Programmes:

**B. Tech. (Information Technology & Mathematical Innovations)**

**M.Sc. (Mathematics Education)**

**B.A. (Hons) Humanities and Social Sciences**

<b>Syllabus</b>	<b>B.Tech. (Information Technology &amp; Mathematical Innovations):</b> <a href="https://www.du.ac.in/uploads/Revi_syll_19082019/19082019_B.TECH_IT_MI.pdf">https://www.du.ac.in/uploads/Revi_syll_19082019/19082019_B.TECH_IT_MI.pdf</a>  <b>M.Sc. Mathematics Education:</b> <a href="https://www.du.ac.in/uploads/RevisedSyllabi1/Annexure-169.%20REVISED%20SYLLABUS%20OF%20M.SC.-FINAL-16.07.2019.pdf">https://www.du.ac.in/uploads/RevisedSyllabi1/Annexure-169.%20REVISED%20SYLLABUS%20OF%20M.SC.-FINAL-16.07.2019.pdf</a>  <b>B.A. (Hons.) Humanities &amp; Social Science:</b> <a href="https://www.du.ac.in/uploads/RevisedSyllabi1/Annexure-168.%20REVISED%20SYLLABUS%20OF%20B.A.%20HONS-FINAL-16.07.2019.pdf">https://www.du.ac.in/uploads/RevisedSyllabi1/Annexure-168.%20REVISED%20SYLLABUS%20OF%20B.A.%20HONS-FINAL-16.07.2019.pdf</a>
<b>Sample Project Reports</b>	Annexure-I
<b>Sample Internship Letters</b>	Annexure-II



# Annexure-I

## Sample Project Reports



Project	Project Title	Link of Project	Year
Sem Long Project	<b>Mathematical Game: Sudoku</b>	<a href="https://cic.du.ac.in/userfiles/downloads/11904_11932_Mathematical_game_SLP.pdf">https://cic.du.ac.in/userfiles/downloads/11904_11932_Mathematical_game_SLP.pdf</a>	2022
Sem Long Project	<b>Card Game In Python : The Black Jack</b>	<a href="https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/Card%20Game%20In%20Python%20%20The%20Black%20Jack%20(2).pdf">https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/Card%20Game%20In%20Python%20%20The%20Black%20Jack%20(2).pdf</a>	2022
Sem Long Project	<b>Bad Math</b>	<a href="https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/BadMath%20(1).pdf">https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/BadMath%20(1).pdf</a>	2022
Sem Long Project	<b>Educational Website</b>	<a href="https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/Educational_Website_SLP.pdf">https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/Educational_Website_SLP.pdf</a>	2022
Sem Long Project	<b>Grader : Android Development of Learning App</b>	<a href="https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/Grader%20Android%20Development%20:%20Learning%20App.pdf">https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/Grader%20Android%20Development%20:%20Learning%20App.pdf</a>	2022
Sem Long Project	<b>Comparision Of DeepLearning Methods For Forecasting Covid-19 in India</b>	<a href="https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/Comparision%20Of%20DeepLearning%20Methods%20For%20Forecasting%20Covid-19%20in%20India.pdf">https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/Comparision%20Of%20DeepLearning%20Methods%20For%20Forecasting%20Covid-19%20in%20India.pdf</a>	2022
Sem Long Project	<b>Documenting Social Innovations</b>	<a href="https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/B.A/documeenting%20social%20innovations.pdf">https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/B.A/documeenting%20social%20innovations.pdf</a>	2022
Sem Long Project	<b>Fashion Innovation</b>	<a href="https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/B.A/Fashion%20Innovation.pdf">https://cic.du.ac.in/userfiles/downloads/ProjectBooklets/B.A/Fashion%20Innovation.pdf</a>	2022
Sem Long Project	<b>An Empirical Study of the Effectiveness of Existing Digital Resources On Pythagorean Theorem In Promoting Discovery Learning Among Secondary School Students</b>	<a href="https://cic.du.ac.in/userfiles/downloads/p13.pdf">https://cic.du.ac.in/userfiles/downloads/p13.pdf</a>	2021
Sem Long Project	<b>Exploring the Methods To Enhance the Fundamental Numeracy Skill at Foundational Stage 3-8 Years: A Meta-Analysis</b>	<a href="https://cic.du.ac.in/userfiles/downloads/p15.pdf">https://cic.du.ac.in/userfiles/downloads/p15.pdf</a>	2021



# Annexure-II

## Sample Internship Letters

Ref:APPT/00018322/2018

June 25, 2019

**TO WHOM IT MAY CONCERN**

This is to certify that **Rahul Yadav** a student of B.Tech (Information Technology & Mathematical Innovation), Cluster Innovation Centre, University of Delhi, India has successfully completed 06 (Six) months (From **December 29, 2018 to June 19, 2019** ) long internship program at **#One97 Communications Ltd. (Paytm) Bangalore**. During the period of his internship program with us his primary profile was **Software Engineer**. We found him sincere, quick learner, hardworking and productive.

We wish him all the best in his future career.

Amit Sinha



Vice President

---

Registered Address:

#One97 Communications Ltd. (Paytm) 144/533, 2nd floor, 22nd main, 150 Feet Ring Road, HSR Layout 1st Sector (AGARA),  
Bangalore – 560102

04-Jul-19

## TO WHOM SO EVER IT MAY CONCERN

This is to acknowledge that **Arjun Sharma**, student of **Cluster Innovation Center, Delhi University** has interned in our organization, Swiggy (Bundl Technologies Pvt Ltd), from 07-Jan-19 to 21-Jun-19. His work was on a project "**Computer Vision**".

During his tenure, we found him to be an enthusiastic contributor and a keen learner. He was a part of our **Technology** team.

We deeply appreciate him for his commitment towards the tasks assigned to him quality of work.

We wish Arjun Sharma the best in his studies and future career.

Yours Sincerely,

For Bundl Technologies Pvt. Ltd.



**Girish Menon**

**VP- Human Resources**



SWIGGY  
FOOD DELIVERY APP

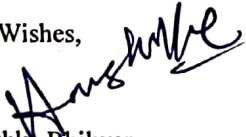
**TO WHOMSOEVER IT MAY CONCERN**  
**Experience Certificate**

Date : 25th June 2019.

This is to certify that Mr. Sumit Verma has worked with ComMutiny-the youth collective, from 17th January, 2019 to 20th June, 2019 for the role of Content Management and Amplification. His job responsibilities included the following as part of her designated role: Conducting secondary research to understand Organization in India, in addition to studying the competitive environment. Assisting in the content development process and for the digital marketing strategies. During his tenure with our organization, he remained involved in his work with determination and sincerity. We found him active and competent in executing all assigned tasks. He is a hard-working and motivated professional. His contribution for the realization of organizational goals and objectives has proven to be helpful in the advancement of our establishment.

We wish him success in all his future endeavors.

Best Wishes,

  
Anushka Bhilwar  
Digital Marketing Head  
ComMutiny – The Youth Collective



**INTERNSHIP COMPLETION CERTIFICATE**

Date: 14<sup>th</sup> June'19  
Name: Utkarsh Mittal

Dear Utkarsh Mittal,

We would like to take this opportunity to congratulate you on the successful completion of your project during internship with the Company.

This letter certifies that you have completed your internship with Accenture Solutions Pvt. Ltd.

The duration of internship was from 16<sup>th</sup> Jan, 2019 to 14<sup>th</sup> June, 2019 under the guidance of Anika Mahajan and Anup Nair.

**Project Title:**

1. Responsible AI
2. Video Analytics

**Project Details:**

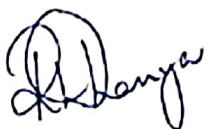
1. Fairness is an increasingly important concern as machine learning models are used to support decision making in high-stakes applications such as mortgage lending, hiring, and prison sentencing. The objective of this project was to develop a new Python toolkit for algorithmic fairness to help facilitate the transition of fairness research algorithms to use in an industrial setting. The package is designed to include a comprehensive set of fairness metrics for datasets and models, explanations for these metrics, and algorithms to mitigate bias in datasets and models.

2. The objective of this project was to develop video analytics capability for one of the top steel producing companies globally and help them derive insights from closed-circuit television (CCTV) footage of their coal transporting wagons. The problem was the theft (pilferage) of coal in transit and the client's requirement was to identify cases of coal pilferage along with level of severity (low/medium/high) for the purposes of internal auditing and reporting to stakeholders. The end goal of the project was to develop an end-to-end model deployed at a cloud server which takes direct inputs from CCTV cameras and flags the wagons corresponding to cases of pilferage, generating a report of all such cases.

Your inputs to the assignment were very well received and we appreciate your contribution to the project.

We wish you the very best for the future.

Yours sincerely,



**Dhanya Rajeswaran,  
Associate Director- HR  
Accenture India**



# **MAHESHWARI HEALTH CARE L.L.P.**

Regd.Off.: 26, Unique Appartment, Sector-13, Rohini, Delhi-110085

Ph.: 9899676650 Email : vipul.solumed@gmail.com

Godown: 4/2, 1<sup>st</sup> Floor, Jhandapur, Sahibabad Industrial Area, Ghaziabad-201010, U.P

Ref. No. ....

Date.....

Dated. 5<sup>th</sup>, July, 2019.

## **TO WHOMSOEVER IT MAY CONCERN**


This is to certify that Mr. Nikhil Maheshwari & Mr. Vipul Gautam have started this Company by the Name of MAHESHWARI HEALTHCARE L.L.P. in December, 2018. Since then, Mr. Nikhil Maheshwari as a Director is looking after the complete Marketing Domain of the Company (both National & International).

During his tenure with the firm, his overall performance was excellent. He is sincere, dedicated and hardworking and is still expanding the working domains for the Company.

We wish him good luck for his future endeavors and a continued progress at Mcare.

Yours sincerely,

For Maheshwari Healthcare L.L.P.



(Vipul Gautam)

Director

For Maheshwari Health Care L.L.P.

Director



[www.zomato.com](http://www.zomato.com)  
[info@zomato.com](mailto:info@zomato.com)

June 10, 2019

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Sanjeev Dubey** was working at Zomato Media Private Limited as an Intern with **Corporate – Tech Team** from **January 07, 2019** till **May 24, 2019**.

I wish him the very best in all his future endeavors.

Sincerely,

For and on behalf of Zomato Media Private Limited,

*Daminee!!*

Daminee Sawhney

(VP, Operations)

**ZOMATO MEDIA PRIVATE LIMITED**

**Registered Address:** Ground Floor 12A, 94 Meghdoot, Nehru Place, New Delhi-110019

**CIN:** U74999DL2018PTC342569

To Whom It May Concern

This is a letter of certification that Vivek Patle, an undergraduate student at the Cluster Innovation Centre, University of Delhi, has done his *Major Internship* with me on the project '*Mechanism Design in Land Assembly Environments*' from December 19, 2018 to July 1, 2019.



Rakesh Chaturvedi

Assistant Professor, IIIT Delhi

Department of Social Sciences and Humanities





## *Internship Completion Certificate*

This is to certify that Mr./Ms. ...Vinay Raj....., a B. Tech (IT & MI; VIII Sem.) student of Cluster Innovation Centre, University of Delhi, has successfully completed his/ her internship from (internship start date...1/1/19..) to (end date...31/5/19.). The project undertaken by him/~~her~~ was in (Mention subject...Robotics.....) titled .....Design and development on autonomous boat for water quality sampling and Geolocation positioning system for non-gps area...

*Sujit H.B*

Mentor's Name: Dr. P.B. Sujit

Designation and Organization: Assistant Professor

Contact Number: +91-11-26907459

Email Address: [sujit@iiitd.ac.in](mailto:sujit@iiitd.ac.in)

Date: 27 June 2019

**Experience Letter For Internship**

**TO WHOM IT MAY CONCERN**

This letter is to certify that **Mr. Sumit Kumar s/o Mr. Bishwanath Yadav** has successfully completed his internship program with Sahaniya Technologies Pvt. Ltd. His Internship tenure was from **17 January 2019 to 27 June 2019** for the duration of six months. He was working as Software tester and Developer Intern and was actively & diligently involved in the task assigned to him.

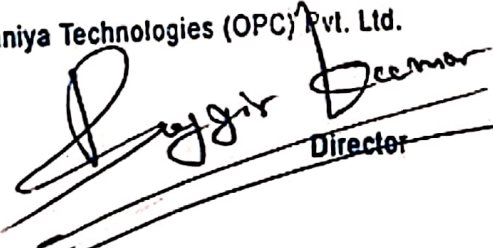
During the period internship, we found him punctual and committed to work. His learning ability and adjusting to the need of organisation is appreciable. His feedback and evaluation proved his keen learning ability and his communication & interpersonal skills are also commendable.

We wish him a bright future.

Thanks.

Er. Rajgir Kumar  
Director

For Sahaniya Technologies (OPC) Pvt. Ltd.

  
Director

Signature and stamp



---

**Brightstar Research LLP**

827, Tower B-3, Spaze I-Tech Park, Sector 49, Sohna Road, Gurgaon-122001,  
Tel No: +91.124.438.2086 : +91.124.438.3584

---

Date: June, 27th, 2019

**Sub – Internship Completion Letter**

We are glad to inform you that Mr Kunal Rao from Cluster Innovation Centre, University of Delhi, has successfully completed his internship at Brightstar Research LLP, from Feb 2019 – April – 2019 post which he has been hired under direct payrolls of one of our client as Derivative Research Analyst.

During his internship he was made to learn to develop various algorithmic trading models and strategies.

We have found him extremely hard working and very much interested in learning the subject and that is the reason he has been given the opportunity to work on full time basis.

Sincerely,

For Brightstar Research LLP

**For Brightstar Research LLP**

  
Anshay Sethi

(Authorised Signatory/Partner  
Partner)



Brightstar Research LLP

---

Brightstar Research LLP  
827, Tower B-3, Spaze I-Tech Park, Sector 49, Sohna Road, Gurgaon-122001,  
Tel No: +91.124.438.2086 : +91.124.438.3584

---

Date: June, 27th, 2019

**Sub – Internship Completion Letter**

We are glad to inform you that Mr Kunal Rao from Cluster Innovation Centre, University of Delhi, has successfully completed his internship at Brightstar Research LLP, from Feb 2019 – April – 2019 post which he has been hired under direct payrolls of one of our client as Derivative Research Analyst.

During his internship he was made to learn to develop various algorithmic trading models and strategies.

We have found him extremely hard working and very much interested in learning the subject and that is the reason he has been given the opportunity to work on full time basis.

Sincerely,

For Brightstar Research LLP

For Brightstar Research LLP

  
Anubhav Sethi

Authorised Signatory/Partner  
(Partner)

[www.brightstar-research.com](http://www.brightstar-research.com)