



YENEPOYA

(DEEMED TO BE UNIVERSITY)

Recognized under Sec 3(A) of the UGC Act 1956

Accredited by NAAC with 'A' Grade

Details of the Collaborative Activity

2018-19

Name of the Collaborating Institute: Molsys Pvt. Ltd, Bangalore

Name of the Collaborating Department from YDU: Yenepoya Research Center

Activities:

- **Industry Internship Training:**

Two PG Diploma students in Multiomics Technology had undertaken Six months industry training at Molsys Pvt. Ltd. during 2018-19.

- Mr. Masoom Ahmed
- Mr. Nischith YS

ATTESTED

Dr. Gangadhara Somayaji K S
Registrar
Yenepoya (Deemed to be University)
University Road, Deralakatte
Mangalore 575 018, Karnataka.



MOLSYS
SCIENTIFIC
FOSTERING SMART SCIENCE

MOLSYS PRIVATE LIMITED
45 Halcyon Defence Enclave, Sathanur,
Bagalur Post, Yelahanka, Bangalore 562149
Karnataka INDIA +91(0) 91088 96655
info@molsys.in
www.molsys.in

Date: March 31st, 2019

Ref. No: Mol/3103/2019-GB1

To,

The Registrar,
Yenepoya University, Mangalore,
Karnataka 575022

Subject: BiSEP Student internship training support at MolSys, Bangalore.

Dear Sir,

We are happy to support the internship of Mr. Nischith at MolSys. He will be trained in genomic data analysis and metagenomics.

Please feel free to reach us for any further assistance.

Yours sincerely,

Gangadhar Somayaji

Authorized Signature
Molsys Pvt. Ltd.
Yelahanka, Bangalore-49



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Dr. Gangadhara Somayaji K S
Registrar
Yenepoya (Deemed to be University)
University Road, Deralakatte
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(Page 1 of 1)

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Monthly Report - July 2019

During the month of July, Nishchith continued towards exploring Metagenomics sequencing analysis using qiime2. Also understanding basics of exploratory data analysis using R, and he attend the PG diploma classes, and also continued to support the material preparation for the inhouse courses. Furthermore, he was actively involved in Molsys CSR activities.

Molsys Pvt. Ltd.

Bengaluru

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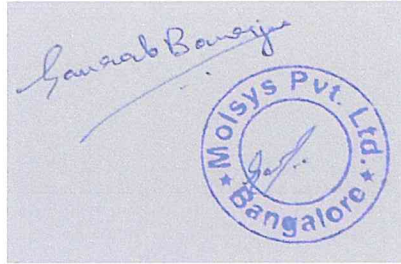

Dr.Gangadhara Somayaji K.S.
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Molsys Pvt Ltd

BiSEP Batch II (2019-2020) Attendance Record of RESIDENT STUDENTS OF KARNATAKA for the month of April 2019

Domain Name: Multiomics Technology

Sl. No.	KBAT Reg No	Name of the Candidate	No. of Working days	No. of Days Attended	Attendance %	Whether payment of Fellowship recommended (Yes/No)	Aadhar No.	Bank Acc No.	Bank Name	Branch Name	IFSC
1	18475 6179	Nishchith Y S	20	19	95%	Yes	97817941 1282	33261010050 58	Canara Bank	Derallikatte	CNRB00 03326



Gaurab Banerjee,
COO,
Molsys Pvt. Ltd

Signature of Course Mentor

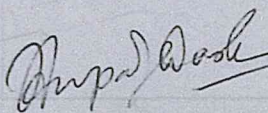
Date 02 May 2017

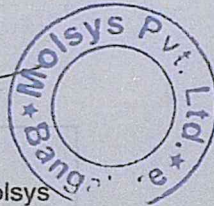
Place Bangalore

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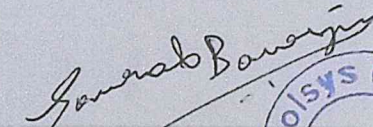
Dr.Gangadhara Somayaji K.S.
Registrar
Yenepoya(Deemed to be University)
University Road, Derallikatte
Mangalore- 575 015

Molsys Scientific Pvt. Ltd.											
BiSEP Batch II (2018-2019) Attendance Record of RESIDENT STUDENTS OF KARNATAKA for the month of October 2018											
Domain Name: Multiomics Technology											
Sl. No.	KBAT Registration Number	Name of the Candidate	No. of Working days	No. of Days Attended	Attendance Percentage (Total No. of days attended x 100 ÷ Total no. of Working Days).	Whether payment of Fellowship recommended (Yes/No)	Aadhar No.	Bank Account No.	Bank Name	Branch Name	IFSC
1	199089057	Masoom Ahmed	26	25	96.15	Yes	728764961108	67308449961	State Bank of India	Eripuram	SBIN0071204


Anupam J Das
Signature of CEO at Molsys Pvt. Ltd.



Date: 16/11/2018
Place: Bengaluru



Gaurab Banerjee
Signature of COO at Molsys Pvt. Ltd.



Date: 16/11/2018
Place: Bengaluru

Molsys Pvt.Ltd, 01 Kogilu, Mittiganalli Cross, Yelahanka, Bengaluru 560064, Karnataka, INDIA | +91 9108896655 | anupam.das@molsys.in www.molsys.in

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Monthly Report

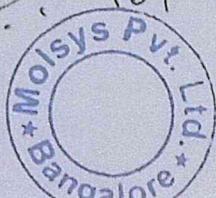
-Masoom Ahmed



It took me a little time to get acclimatize to the company environment. My supervisor and everyone in the company helped me to achieve the same at the earliest. The first task I was assigned was to revise the analysis techniques that I learned during the academic training. Revision mainly included Next Generation Sequencing analysis and Learning about the Linux operating system. During this revisit I was also exposed to some really helpful commands which I have never used before. The next step was to learn about the Fastqc results interpretation in depth. I also learned to use command line interface of the Fastqc analysis. Later I learned about two different types of trimmers and the command line interface of both and how to use it. I learned to write a bash script to automate the Fastqc analysis incorporating the trimmers once the analysis is done and doing the analysis again. Automating pipelines using the bash script was found to have certain disadvantages like it was found to be slow and everything was ran from the external commands it was also found to be difficult for the user and not well when it's a low level operation. I also started to learn basics of HTML in between which would help me in creating user interfaces. Once the bash script was complete I started to learn python in detail. I tried to delve deep into various aspects of the language which made me feel that the language was easy to learn and has a lot of advantages.

I started developing a script with the help of my supervisor using python to automate the NGS analysis and I used vim editor as the editor. The script used modules like 'argparse' and 'os' which would help to run the commands in 'o.s' and was designed to take both the paired end and single end data. I incorporated two types of trimmers like 'trimmomatic' and 'TrimGalore'. I also incorporated two types of aligners 'bowtie2' and 'bwa'. I reached a stage where I also scripted the commands needed to use samtools for the conversion, sorting, indexing and also giving an output '.txt' file which includes the statistics. In between these I also read certain papers and also finished assignments which the company gave me.

Ganesh Babu
16/11/2018



For **MOLSYS PVT. LTD.** ATTESTED

Rehith B.S

Authorised Signatory


Dr. Gangadhara Somayaji K.S.
Registrar
Yenepoya (Deemed to be University)
University Road, Deralakatte
Mangalore- 575 018, Karnataka

November 2018

Molsys Pvt. Ltd.

**BiSEP Batch II (2018-2019) Attendance Record of RESIDENT STUDENTS OF KARNATAKA
for the month of November 2018
Domain Name: Multiomics Technology**

Sl. No.	KBAT Registration Number	Name of the Candidate	No. of Working days	No. of Days Attended	Attendance Percentage (Total No. of days attended x 100 ÷ Total no. of Working Days).	Whether Payment of Fellowship Recommended (Yes/No)	Aadhar No.	Bank Account No.	Bank Name	Branch Name	IFSC
1	199089057	Masoom Ahmed	24	24	100	Yes	728764961108	67308449961	State Bank of India	Eripuram	SBIN0071204

Gaurab Banerjee


Gaurab Banerjee
Signature of COO at Molsys Pvt. Ltd.
Date: 3/12/2018
Place: Bengaluru

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Page 1

[Signature]
Dr. Gangadhara Somayaji K S
Registrar
Yenepoya (Deemed to be University)
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Mangalore 575 018, Karnataka.

Molsys Pvt. Ltd.
BISEP Batch II (2018-2019) Attendance Record of RESIDENT STUDENTS OF KARNATAKA for the month of December 2018
 Domain Name: Multiomics Technology

Sl. No.	KBAT Registration Number	Name of the Candidate	No. of Working days	No. of Days Attended	Attendance Percentage (Total No. of days attended x 100 ÷ Total no. of Working Days).	Whether payment of Fellowship recommended (Yes/No)	Aadhar No.	Bank Account No.	Bank Name	Branch Name	IFSC
1	199089057	Masoom Ahmed	25	23	92	Yes	728764961103	67308499951	State Bank of India	Enpuram	SBIN0071204

FOR MOLSYS PVT. LTD.

Anupam J Das
 Director

Signature of CEO at Molsys Pvt. Ltd.
 Date: 2/01/2019
 Place: Bengaluru

Gaurab Banerjee

Signature of COO at Molsys Pvt. Ltd.
 Date: 2/01/2019
 Place: Bengaluru



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Dr. angalithara Somayaji KS
 Registrar
 Yenepoya (Deemed to be University)
 University Road, Deralakatte
 Mangalore 575 018; Karnataka.

Jan 2019

Molsys Pvt. Ltd.

**BiSEP Batch II (2018-2019) Attendance Record of RESIDENT STUDENTS OF KARNATAKA
for the month of January 2019
Domain Name: Multiomics Technology**

Sl. No.	KBAT Registration Number	Name of the Candidate	No. of Working days	No. of Days Attended	Attendance Percentage (Total No. of days attended x 100 ÷ Total no. of Working Days).	Whether Payment of Fellowship Recommended (Yes/No)	Aadhar No.	Bank Account No.	Bank Name	Branch Name	IFSC
1	199089057	Masoom Ahmed	24	24	100	Yes	728764961108	67308449961	State Bank of India	Eripuram	SBIN0071204

Gaurab Banerjee


Gaurab Banerjee
Signature of COO at Molsys Pvt. Ltd.
Date: 5/02/2019
Place: Bengaluru

ATTESTED


Dr. Gangadhara Somayaji K S
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Mangalore 575 014

Feb 2019

Molsys Pvt. Ltd.

**BiSEP Batch II (2018-2019) Attendance Record of RESIDENT STUDENTS OF KARNATAKA
for the month of February 2019
Domain Name: Multiomics Technology**

Sl. No.	KBAT Registration Number	Name of the Candidate	No. of Working days	No. of Days Attended	Attendance Percentage (Total No. of days attended x 100 ÷ Total no. of Working Days).	Whether Payment of Fellowship Recommended (Yes/No)	Aadhar No.	Bank Account No.	Bank Name	Branch Name	IFSC
1	199089057	Masoom Ahmed	24	24	100	Yes	728764961108	67308449961	State Bank of India	Eripuram	SBIN0071204

Gaurab Banerjee


Gaurab Banerjee
Signature of COO at Molsys Pvt. Ltd.
Date: 28/02/2019
Place: Bengaluru


ATTESTED

March 2019

Molsys Pvt. Ltd.

**BiSEP Batch II (2018-2019) Attendance Record of RESIDENT STUDENTS OF KARNATAKA
for the month of March 2019
Domain Name: Multiomics Technology**

Sl. No.	KBAT Registration Number	Name of the Candidate	No. of Working days	No. of Days Attended	Attendance Percentage (Total No. of days attended x 100 ÷ Total no. of Working Days).	Whether Payment of Fellowship Recommended (Yes/No)	Aadhar No.	Bank Account No.	Bank Name	Branch Name	IFSC
1	199089057	Masoom Ahmed	24	24	100	Yes	728764961108	67308449961	State Bank of India	Eripuram	SBIN0071204

Gaurab Banerjee


Gaurab Banerjee
Signature of COO at Molsys Pvt. Ltd.
Date: 4/04/2019
Place: Bengaluru

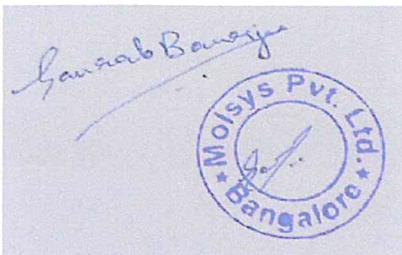
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[Signature]
Dr. Gangadhara Somayaji K S
Registrar
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University Road, Yenepoya
Mangalore 575 001

External assessment report

Name: Masoom Ahmed
KBAT reg no: 199089057


Sl. no.	Evaluation criteria	Max marks	Masoom Ahmed (Marks obtained)
1.	Communication	40	30
2.	Team work and responsibilities	40	35
3.	Skills and proficiency	40	35
4.	Work quality	40	30
5.	Time management	40	35
	Total	200	165



Molsys Pvt. Ltd.

Bengaluru – 20/03/2019

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Registrar
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