



**Birla Institute of Technology & Science, Pilani**  
Pilani | Dubai | Goa | Hyderabad  
Practice School Division

# CHRONICLES

Health Care and Others



PRACTICE SCHOOL - I

Summer - 2019

## From the Desk of the Editor

It is my great pleasure to bring forth the inaugural edition of the PS-I Chronicles. This edition features over 2243 articles from PS-I students sharing their experiences during summer 2019.

The basic premise behind the release of PS-I Chronicles is to document the PS-I learning experience of students keeping the below objectives in view.

- To provide more information on the learning experiences by immediate senior students and PS-I faculty about stations, and thereby enlightening the learning opportunity among the student community.
- To provide the faculty with the enhanced information about the type and nature of work carried out at the organization.
- To transform the knowledge gained at the organization into class room teaching and also to identify the scope of deepening the collaborations with organization.

The articles have been classified into six categories based on the industry domain.

- Chronicle 1: Information Technology
- Chronicle 2: Electronics
- Chronicle 3: Chemical, Mechanical, Cement, Textile, Steel, Infrastructure
- Chronicle 4; Health Care and other
- Chronicle 5: Finance and Management
- Chronicle 6: Government Research labs.

I would like to thank students for sharing their experiences during their stint at the organization. I would also like to thank Prof. Arun Maity and Prof. M. K. Hamirwasia for reviewing the articles and providing us the feedback. I would also like to extend my thanks to Mr. Om Prakash Singh Shekhawat, Prof. S Murugesan, Dr. G Muthukumar and Mr. Varun Singh of the Practice School Division, of BITS, Pilani – Pilani Campus for their help in bringing out this edition of PS-I Chronicles.

I would be happy to receive any feedback regarding the Chronicles. Please feel free to email me at [psd@pilani.bits-pilani.ac.in](mailto:psd@pilani.bits-pilani.ac.in) or at [anil.gaikwad@pilani.bits-pilani.ac.in](mailto:anil.gaikwad@pilani.bits-pilani.ac.in).

## Anil Gaikwad

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## Domain: Healthcare & Others

### PS-I station: Aditya Jyot Eye Hospital , Mumbai

#### Student

Name: Jui Junnarkar (2017A1PS0320G )

#### Student Write-up

**Short Summary of work done:** My project topic for Practice School -1 was Economic Impact of Diabetic Retinopathy (DR) on Patients and Caregivers.

To measure the necessary variables, we prepared a questionnaire (attached herewith) involving all the costs associated with DR which are incurred by the patient and caregiver. We presented this questionnaire to the patients suffering from this eye ailment and one of their family members (caregiver). This questionnaire provides us with insights into whether a patient is following the treatment advised by the doctor. If the patient is cooperating, the questionnaire also records all the types of expenditures and their magnitudes. Using this data, we will draw conclusions after a thorough analysis as to how a person's economic costs increase if he / she suffers from DR.

**PS-I experience:** My PS-I was a good learning experience. The mentor at the hospital was helpful in my project. The hospital staff was cooperative and gave us the required data.

**Learning outcome:** I learnt a lot about managing people and handling an overall organization. I learnt the economic analysis techniques. I also learnt how to collect the required data for the completion of my project.

**PS-I is an exposure oriented course:** I would completely agree on the statement that "PS -1 is an exposure oriented course." We got a great deal of exposure in the hospital. Our mentor also arranged various talks for us to improve and progress. The project given to us was real time industry work and not just book reading.

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Name: Kartikeya Gupta (2017B3A30651P )

### Student Write-up

#### Short Summary of work done:

1. Design social media content and auto-schedule for Instagram / Facebook / Youtube.
2. Run fundraising campaign on Ketto for AJFTLE. Creating school brand ambassadors to fund eye surgeries in suppressed strata.
3. Sponsorship brochure and donation appeal for AJFTLE.
4. Business proposal for VC firms to raise capital for statewide penetration of AJEH.
5. Statistical study on DR in Maharashtra and suggest mitigation plan.
6. Paper on growth opportunities in cities for DR care/ eye care.

**PS-I experience:** An enriching and experiential learning curve under the guidance of Dr Prof. S Natarajan.

**Learning outcome:** I got a deep insight to the marketing outlook of the medical industry and judiciously used the learnt skills to get the best outcome.

**PS-I is an exposure oriented course:** Definitely, it is. The course handout and components keeps a strong check on the deliverables and bind us to follow the listed curriculum.

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Name: Garima Dhar (2017B1A20400P )

### Student Write-up

**Short Summary of work done:** The basic problem with this organizations marketing scheme was that it was known more because of the owners name and not the organizations work. I was in the marketing team to promote Aditya Jyot as a name and so made active their websites, blogs and was a part of their schemes and promotion work. I also helped them in the foundation day work and all the specifications required for marketing and helpful in social media. This included fundraising, CSR work, schemes etc.

**PS-I experience:** My PS-I experience was challenging as we had first hand experience of the challenges and problems faced in a corporate environment and had to come up with solutions and strategies to solve them upfront.

**Learning outcome:** I got to face the challenges faced by corporates first hand and from up close and was able to form and strategise new schemes to solve them. From ideation, initiation, implementation till the execution of the solution to a real life problem, i was to be a part of it. It was an eye opener and will surely help me in my corporate endeavours further.

**PS-I is an exposure oriented course:** PS-1 is an exposure oriented course for sure as in my case it helped me get a very good and first time experience of how corporate life works and gave me indepth insight of the heathcare sector as well. I got to meet leaders and people from very good healthcare companies and thus got to network with them as well.

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**Name: Saniya Minase (2017A8PS0705G )**

### **Student Write-up**

**Short Summary of work done:** Created an android app to enter details about medical samples, save it to a google spreadsheet and generate a barcode from the recorded data. Details such as sample type, patient ID, diagnosis, storage conditions, purpose of sample collection are recorded from a drop-down menu and automatically stored in a spreadsheet. A barcode is generated to uniquely identify the sample. The barcode is used to label the sample container, thus reducing proneness to human error, time taken to record details and protecting patient privacy, as compared to manually noting down data.

**PS-I experience:** The opportunity to learn something new on our own was very rewarding. Especially learning a new skill to try and solve a real problem people face was an enriching experience. To be able to create a useful interface for the hospital staff in limited time was a great motivation for us.

**Learning outcome:** Gained experience with android application development and design, creating a signed application and linking it to google scripts. Also learnt about

development with Visual Studio and design software such as Unity, while exploring alternative solutions.

**PS-I is an exposure oriented course:** PS-I was an exposure oriented course as we had to step outside of our comfort zone to learn new software in the span of a few weeks and at the same time come up with a workable solution to automate the manual process of data entry. Our PS-I station being an eye hospital, we also had to learn about the functioning of the hospital and its work to effectively provide a solution. Learning and working on a project on our own in a new environment was also a new experience.

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**Name: Varun Shah (2017B4AA0817G )**

### **Student Write-up**

**Short Summary of work done:** We have been assigned work about marketing and making a pitch for the VC for fundraising.

**PS-I experience:** It was a great experience with lot to learn.

**Learning outcome:** We learned about designing posts for social media and also collect data and pitch it to the VC

**PS-I is an exposure oriented course:** It is an exposure oriented course. It exposed us to areas where we haven't had prior experience and a great way to get an idea about the corporate world.

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**Name: Hritik Madankar (2017B1A30888P )**

### **Student Write-up**

**Short Summary of work done:** The project title was Automation of Pedigree Charts for Genetic Datasets. We were supposed to make a desktop based application that will automatically generate a basic pedigree chart based on the questionnaire asked to the patient. The chart can be edited further using an interactive UI. Also the data was stored about the patient's pedigree which can be used to do further research like statistical prediction of probability of the occurrence of a genetic disease.

**PS-I experience:** The experience was great. All the staff of the hospital was cooperative and cheerful. We worked hard to complete the task given to us. And in the end the hospital is going to use the software made by us, that feels very good.

**Learning outcome:** We learnt Desktop Application Development, Visual Basic and basics of MS-Access. We also interacted with many great people at the hospital which led to increase of our contact base.

**PS-I is an exposure oriented course:** PS-1 provided was a great exposure to me. Living away from college and home for 2 months. Managing accomodation, food and everything by self. Making connections with new people. It was overall a very productive experience.

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**PS-I station: APS Lifetech , Pune**

**Student**

**Name: Vallari Shende (2017B1A70699G)**

**Student Write-up**

**Short Summary of work done :**The project assigned to me was - "The Molecular Efficacy of Herbal Plants". It involved hands-on work in DNA extraction, Polymerase Chain Reaction as well as gel electrophoresis and documentation. We were required to study Next Generation Sequencing and the theory behind DNA extraction, Polymerase Chain Reaction, Recombinant DNA Technology and Plant Tissue Culture. We did DNA extraction of 30 plant samples in the lab using DNA extraction kits. Each and every step for DNA extraction was done by us, from preparing the chemicals to the final

visualisation of the results obtained. Similarly, for gel electrophoresis, we did everything from gel casting to final gel documentation.

**PS-I experience:** It was a great experience. I learned many new things, such as, how to operate different machinery in lab like, PCR Thermocycler, Refrigerated Centrifuge, gel documentation system, Autoclave, etc. I got familiar with different lab protocols. It was good to do some practical work along with theoretical learning.

**Learning outcome:** From this PS-I, I have learned that research work of biology in a lab is something which requires a lot of patience and dedication. Even if the procedure is followed meticulously, one may get the wrong results, or no results at all. And this lab work is necessary, because only theoretical research is not possible.

**PS-I is an exposure oriented course:** During PS-I, I got to work in a professional environment. I worked with interns from other colleges too. We learned to work as a team and tackled different problems together. I got to work in a functional lab and got to operate all the machinery. PS-I is definitely an exposure oriented course.

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**Name: Sarvgya Kumar (2017A1PS0630G)**

### **Student Write-up**

**Short Summary of work done:** To study the various sources of VOCs in IVF Lab and find a suitable replacement. Also to make a working prototype of a VOC Analyzer.

**PS-I experience:** Overall it has been a great experience. I did learn a lot of things about how things happen in the actual world.

**Learning outcome:** My work at PS-I taught me how to deal with a problem and the effective way to arrive at its solution.

**PS-I is an exposure oriented course:** Yes, it actually gives a good real life exposure and how things happen in the actual world.

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**Name: Aneesh Wagle (2017A2PS0970H)**

### **Student Write-up**

**Short Summary of work done:** The work allotted to me was designing of the new APS office and understanding the process involved in the same. This included understanding and designing of electrical systems etc and also coordinating with different people involved in the same.

**PS-I experience:** PS-1 experience was good in terms of understanding the professional workplace.

**Learning outcome:** I learnt how to manage a lot things and at the same time seeking and understanding answers to things we do not know.

**PS-I is an exposure oriented course:** Yes

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**Name: Maitrayee Nakade (2017B4AA0882G)**

### **Student Write-up**

**Short Summary of work done:** The project for PS-1 was to build company's website using AngularJS. The main aim was to make it more responsive and to make an user-friendly interface to pull more clients for the company. Skills learnt during this project were JavaScript, CSS, bootstrap, Angular CLI and using Visual Studio Code. Our first task was to build a demo website, for which we made a pizza delivery website. On further corrections by the mentor we started working on actual website. Finally, a basic structure of the website was made and accepted by the company.

**PS-I experience:** It was nice working with professionals and experts. We got an exposure to learn and implement front end web development.



**Learning outcome:** The learning outcome through this project was introduction to front end web development.

**PS-I is an exposure oriented course:** Depends on PS-I station and the project allotted.

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**Name:** [Shounak Naik \(2017B1A70835G\)](#)

### **Student Write-up**

**Short Summary of work done:** Our project is to extract DNA from 50 different herbal plants. Give the DNA for sequencing and identify the gene sequences which code for the medicinal compounds in the plant. After making copies of the gene of interest using PCR, we proceed with incorporating the gene of interest into an *E. coli* bacteria. Theoretically, using recombinant DNA technology, we can produce the medicinal compound a lot faster and more efficiently as the *E. coli* will produce as much compound in 20 minutes, whereas the plants can take years. By this, we only get the medicinal compound and not the rest of the compounds which are there in the plant. We also learnt on how sequencing occurs and learnt about NGS and tissue culturing. I also found the different techniques of sequencing namely Illumina, Oxford Nanopore, Ion torrent and Sanger remarkably brilliant. The nitty gritty of lab work were also understood.

**PS-I experience:** PS-1 gave me a lot of hands on experience on all the instruments in the lab. The lab ethics in a biotechnology lab were learnt. A lot of independence was given to us on how we carry out the extraction. We could improvise the protocol, machines, etc to best optimize the process. We could not however complete our project as the DNA extraction step takes a lot of time.

**Learning outcome:** The biggest learning outcome for me was that research in biology can be very tedious and frustrating. It requires a lot of patience and the initial step of data collection in biology research takes a lot of time. Even when you follow protocols meticulously, there is no guarantee of success. You have to keep on trying until you get proper results. I observed that the field of biotechnology has a huge economic potential which is largely untapped in India, which is why companies like APS Lifetech are making a fortune.

**PS-I is an exposure oriented course:** Yes. I agree with this statement. In my PS-I, I got exposure to the field of biotechnology. I will have to gauge if I am ready to pursue a career in biology research as it takes a lot of patience and it can be frustrating. A lot of scope for novel ideas is still there in this field and thus is very upcoming. A exposure about the lab work was provided to me.

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## **PS-I station: Birla Science Centre , Pilani**

### **Student**

**Name:** Purva Bhagwat (2017B4A30019G)

#### **Student Write-up**

**Short Summary of work done:** Keeping a track of number of visitors in the science center using opencv and tensorflow.

**PS-I experience:** It was a great learning experience.

**Learning outcome:** I came to know about a lot of technical stuff and all the different domains.

**PS-I is an exposure oriented course:** Yes it is.

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**Name:** Aaryan Upadhyaya (2017AAPS0336H)

#### **Student Write-up**

**Short Summary of work done:** A computer vision exhibit for the science center that has two applications that can be accessed through pressing buttons: (1) An age gender

estimator for multiple faces (2) A virtual piano that can be played by shining a bright light source in front of the camera that controls a pointer that is used to play the piano on the screen.

We started with a raspberry pi but it was extremely slow when it came to running the age gender detection code. So we switched to a Windows PC.

The whole application is in a single python code that plays the welcome audio, reads the serial data from the Arduino uno and according to the buttons (connected to the Uno) pressed, it switches between the home screen and the apps.

This code can be run in the beginning of the day and then will keep running.

**PS-I experience:** I learnt a lot of things about how to deploy a final product to the user. I worked in a team and divided work so that all of us learn something.

We had all resources available and the staff would provide anything we required at any time.

It's not just about completing the project here, you have to explain all the hardware and software requirements of your project and explain its operation very well to the staff so that they can deploy it later in the science center.

The projects need not be exhibits, it could be for making the overall functioning of the center efficiently.

**Learning outcome:** Got a good grip on python and its modules such as OpenCV, PySerial, Tensorflow, etc.

Had to think of possible real world scenarios while working.

Got a good idea of Serial communication between two devices.

**PS-I is an exposure oriented course:** Yes, it gave me exposure, but not in my field of study. I had to learn completely new things and whatever i've studied till now didn't come to use.

Yeah, we had to work in teams and face deadlines but it doesn't exactly mimic the actual work culture here atleast.

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**Name: Riya Doshi (2017A8PS0543G)**

## **Student Write-up**

**Short Summary of work done:** Made a Computer Vision exhibit.

Age and Gender detection

Design and development of a 8 note piano

Worked on Tensorflow, Opencv, Image processing work.

**PS-I experience:** Independence to choose project, equipment provided easily, learnt a lot from peers from here, different skills can be taken up from friends, there is no strict supervision, so, you can have fun and work at the same time.

**Learning outcome:** Team work, Computer Vision (I had no experience in this field at all) , Python script.

**PS-I is an exposure oriented course:** Lite.

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**Name:** Rakesh Bhugra (2017B4AA1519H)

### **Student Write-up**

**Short Summary of work done:** We made a project cum exhibit for the Birla Science Centre, Pilani in the domain of Artificial Intelligence and sub-domain of Computer Vision, it was one of first AI based models there. We made a person counter system using computer vision, our target was not to count people as could be done by any simple sensors but was to introduce AI based projects in the Science Centre as it should be updated with state-of-the-art technology. Our project achieved highly accurate results for object detection and tracking. The overview looks simple but the optimization is where all the hard work lies, our model detected and tracked multiple persons once inside frame, people were ID'd and tracked, it was optimized to run on GPU's so it never missed out in a single frame even when it peaked out up to 120 FPS. Once tracked if a person passes the ROI line the counter increases.

**PS-I experience:** It was fun, learning and a new experience.

**Learning outcome:** Planning and preparing for the real world projects for the first time

- Making feasible timelines are important
- Making feasible timeline is important but sticking to it no matter how hard it is aids your growth
- Everything doesn't go always as planned
- Smaller targets change along the way to achieve the main goal
- Things might look simpler on the outside, but when you go for the implementation you'll see the nuances, complexity and beauty of the product

**PS-I is an exposure oriented course:** Totally agree with this statement, it provided an exposure to new people, new working and living environment, how to get things done in real life, how to handle pressure, coordinate with team and much more.

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**PS-I station: Center for Medical Genetics, Chennai**

**Student**

**Name: Kandregula Bhaskar (2017A5PS1114P)**

**Student Write-up**

**Short Summary of work done:** I learnt how karyotyping of chromosomes done for peripheral blood and learnt some basics about genetic counselling. I did a project on *in-silico* studies of insulin resistance where I observed competitive inhibition of amyloid beta to insulin binding with its receptor. we prepared protein and peptide before docking and used ZDOCK server for the same. Based on Zscore results, I inferred that amyloid beta inhibiting insulin to bind with its receptor. I also had demonstration on MTT assay which is one of the important cytotoxic study done during drug development.

**PS-I experience:** It was overall good learning experience where I got chance to meet great professors through their lectures from various universities during guest lectures.

**Learning outcome:** Got basic knowledge about bioinformatics and how *in-silico* studies are done.

**PS-I is an exposure oriented course:** Yes, I had clinical and working exposure in CMG

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Name: Angeline Sharon (2017B1A10833G)

### Student Write-up

**Short Summary of work done:** The first week and a half went in getting used to the working of the place and learning basic laboratory skills that were used there. After that we were asked discuss with our instructors and come up with a topic that we would be working with throughout the course of our PS-I. I had decided to work on two projects. One was related to genetic counseling case studies and finding out the molecular basis of the diseases that I considered using bio informatics tools. My next project was about optimising the lab procedure by finding out the influence of time in the lab procedures. Apart from this, we were also made to write the standard operating procedures for some of the lab procedures. We also made a form for genetic counseling so that the process could be more systematic.

**PS-I experience:** It was indeed an enlightening experience. I learnt a lot of laboratory skills that will definitely be useful for me later. I understood how to write reports and make SOPS for lab procedures. I acquired several other soft skills also. I definitely improved my management skills through managing everything in a new city that my PS was at Chennai.

**Learning outcome:** I learnt many lab techniques, softwares and bioinformatics tools. I acquired skills in report writing and presentation making and also writing formal standard operating procedures.

**PS-I is an exposure oriented course:** It was truly a learning experience in terms of understanding how the corporate world works. It gave us a decent exposure to the job environment and taught us management skills as well.

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Name: Ayush Nair (2017A5PS1068P)

### Student Write-up

**Short Summary of work done:**

1. Did peptide-protein docking by ZDOCK to show competitive inhibition of human insulin on insulin receptor by amyloid beta and resulting effects of insulin resistance in Alzheimer's patients and resulting BLAST analysis.
2. Demonstration on animal cell culture and performed MTT assay to determine effects of Nystatin on cancer cell lines MDA-MV231.
3. Prepared a case presentation on unexpected VHL syndrome diagnosis and resulting Genetic counselling challenges.
4. I prepared a SOP on cell culture harvesting for CMG lab.
5. Cultured, Harvested, Karyotyped my own blood sample.

**PS-I experience:** A small PS-I station, but a very good one. The station works mainly on diagnosing genetic diseases, counselling and karyotyping samples. Very friendly and supportive staff. They motivated time to time and helped me whenever I didn't get my results. It was a really good learning experience. Do apply here if you want to learn more on clinical and molecular genetics.

**Learning outcome:** Basic introduction to bioinformatics, common bioinformatics, docking tools, peripheral blood culturing, harvesting and karyotyping analysis using ASI, animal cell culture maintenance, sub-culturing, MTT assay, genetic counselling, pre-counselling and post-counseling, clinical interventions and counselling challenges, basic introduction to genetic diseases and molecular techniques like FISH, PCR, Microarray, Gel electrophoresis.

**PS-I is an exposure oriented course:** The aim of PS-I is to get a practical exposure and applying it to theory. I can't say for other domains, but for clinical labs, I'll suggest try getting your hands dirty and do as much benchwork as you can, and get results which you could publish. It's better to start diving into the domain of research as soon as possible and PS-1 is the perfect place for that. So while, PS-1 is meant to get exposure, I'll suggest not to be restricted to it and be as much involved as you can to get maximum rewards. In the end, it'll be a more enriching experience. Please do choose your PS-I stations carefully. You might loose a great opportunity eventually if you don't do more background research beforehand.

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**Name:** Achalla Vaishnav Pavan Kumar (2017A5PS1112P)

### **Student Write-up**

**Short Summary of work done:** My projects- chromosomal disease frequency in India and other countries and karyotyping.

**PS-I experience:** It was a very good learning experience.

**Learning outcome:** Cytogenetic testing and animal cell culture.

**PS-I is an exposure oriented course:** Yes, this is correct.

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**Name:** Shiva's Chaterji (2017B1AB0409P)

### **Student Write-up**

**Short Summary of work done:** We were taught the basics of genetics and inheritance patterns. We were also given hands on exposure for karyotyping and we're then allowed to choose individual projects. Mine was Primer Design for the PCR based detection of the BCR-ABL fusion gene in Chronic Myeloid Leukemeia.

**PS-I experience:** I chose CMG to get exposure into the functioning of a genetics laboratory and I learnt about various methods and techniques of genetics laboratories use. The staff i worked with were friendly and encouraging and helped make it an educational experience overall.

**Learning outcome:** I learnt how to apply theoretical knowledge in the practical world, how to balance work and life schedules and about various intricacies and tools in the field of biology.

**PS-I is an exposure oriented course:** Yes, it gives an opportunity to apply theoretical knowledge in the real world and provide a hands on approach into the subject of choice.

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**Name:** A V Pavan kumar (2017A5PS1112P)

### **Student Write-up**



**Short Summary of work done:** The chromosomal abnormalities in various regions of india and other countries is being studied. A form is being made for genetic counseling which makes documentation easy and saves their tie during counseling is being made.

**PS-I experience:** It was very good and informative as well as our PS-I instructors were friendly with us. The whole experience till now is very good.

**Learning outcome:** Learned about various cytogenetic techniques.

**PS-I is an exposure oriented course:** Yes, PS-1 is a very good opportunity to observe how an organization works and also acquire the knowledge related to our stream.

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**PS-I station: Council of Science & Technology (CST), Lucknow**

**Student**

**Name: Dhruv Garg (2017B4A30409G )**

**Student Write-up**

**Short Summary of work done:** Some typing work in hindi and after that, as a part of team of 3, Automation of detection and comparison of buildings in satellite images.

**PS-I experience:** It was great, useful and helped me experience the corporate life.

**Learning outcome:** Basics of CNN, some coding, and other things.

**PS-I is an exposure oriented course:** Very true. The exposure to the job life, to the deadlines, to the various kinds of work was really amazing.

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**Name: Saahil Dhaka (2017B4A20666P)**

### **Student Write-up**

**Short Summary of work done:** We initially studied the various types of Intellectual Property Rights and products available. We studied the process of filing these claims as well as the reforms that have been done recently. We noticed that this information is not available to the general public as well as the prior art search databases and tools are paid.

So to provide information regarding IP and Prior Art Search, we built a portal using Flask and Django frameworks of python. To do this, we had to first learn python, then django and flask. We integrated the project with the already existing portal available and built a basic search engine to use free databases.

**PS-I experience:** The experience was great as I was introduced to development and learnt many new things. Initially finding accommodation was difficult and the climate was very hot but later all the problems were sorted out. I'm thankful that I was introduced to python and have landed many online projects as well due to the skills I had to learn for my PS-I project.

**Learning outcome:** I learnt web development through flask and django frameworks of python as well as a little bit of HTML and CSS.

**PS-I is an exposure oriented course:** It is true to some extent but the duration does limit the amount of exposure one can gain.

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**Name: Shashwat Kakkar (2017AAPS0269H)**

### **Student Write-up**

**Short Summary of work done:** I took up the work in astronomy department of CST where I was basically given the work of astronomy popularization. We studied various topics related to astronomy like eclipses, mercury transits, venus transits, observed sun

through especially designed telescopes with H-alpha filters, observed the working of Indira Gandhi Planetarium which is the biggest of its kind in Uttar Pradesh and also learnt how the organisation does the work of astronomy popularization through various events organized during eclipses and also the use of mobile planetariums to educate and awaken the interest of school children in the areas where they do not have access to good facilities. After studying all these things, we made attractive presentations on these which will be finally compiled into a video which will be played in the shows of planetarium for people who visit Indira Gandhi Planetarium so that they also develop interest in astronomy.

**PS-I experience:** It was a great experience working for the first time in an organization and i get to learn so much in astronomy department where i worked as mentioned above and got the chance to interact with some professionals working in those fields. So in short we really enjoyed working here.

**Learning outcome:** learnt about the working of planetarium on a large scale and also about various concepts of astronomy. We also observed sun through especially designed telescopes and also about mobile planetariums which was a fascinating experience in itself.

**PS-I is an exposure oriented course:** It truly provides an exposure to the outside corporate world and also provides us an excellent opportunity to learn about how to work in an organization and besides peers and we get to interact with various distinguished professionals which increases our network and also helps us in future.

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**Name:** Raghav Kumar Gupta (2017B3A30480G)

### **Student Write-up**

**Short Summary of work done:** We made a website for a state level competition conducted by the organization. During the course of the development, we learned how to use HTML,CSS and Django.

**PS-I experience:** It was an enriching experience on working in an organization. Also the project allowed to me was of my area of interest which further helped me advance my skills in that area.

**Learning outcome:** I learned how to work in a group and how to manage projects in a given timeline.

**PS-I is an exposure oriented course:** Yes.

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**Name:** Navya Mishra (2017B2A80700G)

### **Student Write-up**

**Short Summary of work done:** I worked at Indira Gandhi Planetarium run by CST, UP. My project can be understood as a combination of astronomy exploration and astronomy popularisation. Space science and astronomy, to the common man, to this day, remain a mystery well out of reach. Hence, we joined the planetarium and helped it in its goal of bringing people closer to the mysteries of the unexplored universe. The planetarium hosts many visitors everyday who spend a considerable time viewing the exhibits of replica satellites, satellite launch vehicles etc. To give them a better idea of the stories and specifications associated with these mega projects, we created informative presentations to be displayed alongside the models. Other than this, we ourselves explored astronomy by learning about handling telescopes. We had a sun watching session and we observed several properties and features of the sun like flares, filaments, solar wind etc. We learnt how to operate a mobile planetarium. We learnt about its technical aspects and the software behind it. Hence, we got to learn a lot and gain hands on experience in the field of astronomy and we gave back to the organisation by taking a step forward in the direction of their goal.

**PS-I experience:** I have been fascinated by astronomy since childhood. Infact, it was my childhood dream to pursue the space sciences. Hence, when I got allotted the astronomy division at CST UP, I was looking forward to activities that would bring me closer to astronomy and I was not disappointed. My mentor was very enthusiastic about providing the best experiences to me and my team mates. We got hands on experience on handling, assembling and deassembling of telescopes. We had a sun watching session. It was 36 degrees in Lucknow but the session was worth standing in the scorching sun. We observed the sun and its properties like flares, filaments, solar wind, black and white spots. We also saw a large variety of telescopes, equipment used for astronomical observations, explored concepts like astrophotography and our mentor motivated us to pursue our passion and interest in astronomy further. I had no problem adjusting with my teammates. We worked towards astronomy popularisation to help the organisation and it feels good to have contributed to their goal and the work that we

have done will be displayed for the public to see everyday and would bring them closer to astronomy and the mysteries of the universe. I had a good experience. PS-1 will definitely be a good memory.

**Learning outcome:** Since I am interested in astronomy, everyday was a learning experience. I learnt basics of astrophysics and astronomy, learnt to assemble, deassemble and focus a solar telescope, I learnt about various Indian space programmes and milestones. I learnt about many people pursuing astronomy that motivated me to think in that direction too. I learnt about planetaria, how they are operated, the technicalities behind them and the software used. I worked in a team and observed the working of a professional organisation and the challenges associated with it.

**PS-I is an exposure oriented course:** I believe PS-1 is indeed an exposure oriented course. I got exposure to a completely new field of science- astronomy and I thoroughly enjoyed it. Be it the scientific learning, the hands-on astronomical activities like sun watching and telescope handling or the experience of working with a new set of people in a team in a professional environment. Also through my project, I did something to bring space science and common public together and hence, it was a good experience for me.

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**Name:** Shivansh Agarwal (2017ABPS1044P)

### **Student Write-up**

**Short Summary of work done:** We worked in the Hindustan Bioenergy Lab. We learnt about banana tissue culture and helped in the replacement of plastic bags with bio-degradable bags.

**PS-I experience:** It was a very nice experience. I learnt a lot in the PS-I and gained practical knowledge.

**Learning outcome:** I learnt about banana tissue culture and micropropagation.

**PS-I is an exposure oriented course:** Definitely Yes!  
We gain a lot of practical knowledge, on how to deal with real world problems.

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**Name: Shashwat Khare (2017A8PS0249P)**

### **Student Write-up**

**Short Summary of work done:** I did a project in android app development here. Not only that, I also learned some database management skills too like SQLite and JSON.

**PS-I experience:** It was a very wonderful experience. I learned a lot of practical aspects of android development in this project. Not only that, I also learned some database management skills too.

**Learning outcome:** Android app development and databases like SQLite and JSON format of data.

**PS-I is an exposure oriented course:** I did a project in android app development here. It was a very wonderful experience. I learned a lot of practical aspects of android development in this project. Not only that, I also learned some database management skills too.

I got exposure to a department of the government working for the promotion of science and technology in the whole of Uttar Pradesh. It taught me the basics of many aspects of the promotion of science and technology.

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**Name: Shivam Thukral (2017A8PS0974G)**

### **Student Write-up**

**Short Summary of work done:** I helped the organization in reducing their manual work and the amount of paper work required by digitalising one of their premier programs in which more than 200 applications come in. During working for the same, I decided to change this system of hard copy applications and manual work of seperating, reading and judging all those entries which was very time consuming and that is why I proposed to make an online web portal that would make the event completely online with no paperwork, manual labor involved and would take a lot less time than what it used to

take before this. The portal was futuristic in approach, it even has a feature for the judges to accept/reject a project online itself and the selected students are automatically sent a mail with a specific QR code that is unique to them only. The website has been done, approved and it will go live around mid August and will be used as the form of registration for the competition this time.

**PS-I experience:** PS-I was an enriching experience where i got to interact with lots of people who had lots of different ideas and ways of working. I learnt how to work under organisation set-up and how to follow the norms of it, how to take up the idea of your boss/mentor and improve upon it and deliver everything that is needed on time and with the right quality.

**Learning outcome:** I learnt how to function in an organization and come up with new, creative ideas. I learnt how to manage lots of stuff in a short space of time and how to finish a project with the right quality in the given amount of time. I had not done Web development before this so i learnt HTML, CSS and Django as well during my PS-I.

**PS-I is an exposure oriented course:** Yes, PS-I is an exposure oriented course and it helps the students who are stepping out into the professional world for the first time to learn how to work in an organization and work as a team and now as an individual. The exposure that we get is extremely important in shaping our future selves as we are exposed to the industry finally and we know exactly what is required of us.

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**Name: Kunal Rastogi (2017A2PS0833P)**

### **Student Write-up**

**Short Summary of work done:** We were assigned to create an information portals describing the various IPR present for the official page of CST. The portal would be responsible for giving users with preliminary information regarding various IPR and how to file them.

**PS-I experience:** It was good. We were able to gauge a working environment and what is expected of us in a professional environment.

**Learning outcome:** I got to learn various things about IPR and how to file them. I also got to learn front end development as well as how to work in team.

**PS-I is an exposure oriented course:** We get a lot of exposure regarding the professional environment and how we are to conduct ourselves.

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**Name:** Aditya Srivastava (2017B2A10567P)

### **Student Write-up**

**Short Summary of work done:** Today due to rapid increase of vehicles on roads, the management of traffic is turning out to be a humongous task. This project aims to develop a dynamic traffic management system to tackle the congestion problem at four lanes.

**PS-I experience:** Had a great experience working at CST.

**Learning outcome:** Learned openCV and its application.

**PS-I is an exposure oriented course:** True. Had great exposure to the work culture in a professional organisation while working in CST.

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**Name:** Shashvat Shukla (2017A7PS0064G)

### **Student Write-up**

**Short Summary of work done:** The project allotted to my team was under the area of android app development. The project was to make a science quiz app for students belonging to 6-8th standards. The subjects included in this quiz app are Physics, Chemistry and Biology. I was given the task of preparing the database for this quiz app. I used SQLite for the offline database and JSON for the online database. Firebase was



used to provide a real time database. NCERT textbooks, ICSE textbooks were the sources for the questions present in the database. The textbooks used were of classes 6-8th. Also, the questions inserted into the database were such that quiz does not become monotonous. This work gave me a lot of opportunity to learn new courses.

**PS-I experience:** It was a wonderful experience. A lot of exposure was there as it was my first time to work in an organization. The staff was very cooperative and my mentor was also decent in behaviour.

**Learning outcome:** Android app development, SQL, JSON, Firebase.

**PS-I is an exposure oriented course:** It is definitely true as the students get an opportunity to work in an organisation. It does not matter whether the students get opportunity to work in their respective branches / department. This is because the main aim of PS-1 is to make us aware about the way to work in an organisation.

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## **PS-I station: Department of Agriculture, Goa**

### **Student**

**Name:** Anumolu Varsha (2017A7PS0089G)

### **Student Write-up**

**Short Summary of work done:** We had to decrease the communication gap between the farmers and the agriculture department. So, we made an Optical Character Recognition Software. It reads the information on the forms and enters them onto the database automatically. This decreases the burden on the data entry officers.

**PS-I experience:** We went to the zonal agricultural offices and took a survey from the farmers and the officers to understand the problems faced by them on the website. We understood that farmers don't use the website. So, we thought making the data entry process is better and made an OCR.

**Learning outcome:** Understood the working of a company and a balance between work and life.

**PS-I is an exposure oriented course:** Very true

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**Name:** Ankitha Sai Venkata (2017AAPS1235H)

### **Student Write-up**

**Short Summary of work done:** As our PS-I station was in the department of agriculture, we tried to ease the current farmer and department officer interaction and tried to increase the efficiency of certain parts of the process. We have built an Optical Character Recognition software so that the department officers can scan the application forms bought by the farmers and have the handwriting form be read and inputted into a database automatically. We also built a whatsapp chatbot for the farmers to receive status updates of their application processing without having to physically go to the office and inquire there.

**PS-I experience:** We visited zonal agriculture offices around Goa and surveyed the farmers and government officers there. We analysed our survey results and found out that the farmers don't use the website very often. Hence, we decided to provide a solution that does not require the website and can be accessed easily by farmers who are not very technologically savvy.

**Learning outcome:** We used various python libraries to create our OCR software.

**PS-I is an exposure oriented course:** Yes, we learned a lot about teamwork.

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**Name:** Ratnakant Dinraj Govenker (2017A8PS0722G)

## Student Write-up

**Short Summary of work done:** The department of agriculture, Government of Goa has a flagship project called 'e-Krishi', under the Rashtriya Krishi Vikas Yojana (RKVY) which aims to digitise the process of availing and processing subsidies and other schemes available to the farmer. The 'e-Krishi' project has tremendous scope to increase the efficiency of the system by making use of new and emerging software and technology. The project work consisted of interacting with different government officials and farmers throughout the state in order to understand the functioning and efficiency of the e-Krishi system. Based on the results of these interactions, ideas were brainstormed for projects and certain projects were finalised to be worked upon. The projects included a WhatsApp chatbot used for pushing information about assured prices, schemes and subsidies to the farmers. This bot provided a platform to decrease the communication gap between the public and the government and helped farmers get answers to their queries with ease and convenience. Another project done was an Optical Character Recognition (OCR) software created for the government officials to aid the process of data entry, where the officials could scan the paper-based applications submitted by the farmers and enter it automatically into the internal database or the e-Krishi web-interface. This software helped reduce the time taken to process the large number of applications received by the office and increase the overall efficiency of the process.

**PS-I experience:** The project done at PS-I included visiting several zonal agricultural offices and interviewing the staff to know more about the working of the organisation. There were surveys conducted among the farming community of the state and this included meeting and talking to the farmers about farming, their profession and lifestyle. The work included a lot of brainstorming with the mentor and other staff at the office in order to find suitable solutions for the problems faced by the farmers and the staff. Quite a bit of self study was involved in order to learn computer programming in the Python framework and using libraries in Python. There was also a need to understand and implement Artificial Intelligence and Deep Learning in order to create an Optical Character Recognition (OCR) software.

**Learning outcome:** The surveys and interviews conducted greatly helped increase the communication skills and to interact with people of different backgrounds and lifestyles. The work done in the project included computer programming which was not directly aligned with my coursework and hence self study was needed in order to learn new programming languages, software and libraries in order to complete the project. The project also gave an opportunity to briefly study Artificial intelligence and Machine learning. The project was done in groups and hence teamwork, coordination and time management was essential in ensuring successful completion of the project work.

**PS-I is an exposure oriented course:** PS-I at the department of agriculture provided an opportunity to learn about the functioning of the government and the bureaucracy.

The organisation gave us an opportunity to work on a project which has the possibility of being implemented throughout the state and can truly help the farming community of Goa. Even though the projects chosen were not directly aligned with my discipline or interests, it gave me an opportunity to study computer programming and to learn and implement concepts like Machine Learning and Artificial Intelligence. The reports and presentations helped students to learn about the professional standards required in order to work in an organisation. Discussions and brainstorming with the mentor gave an insight into the work that the government does and the constructive feedback received greatly aided in working on our projects. The PS-I helped in sharpening the skills of problem solving and critical analysis and the project done helped in finding solutions to issues concerning lakhs of people involved in agriculture throughout the state of Goa.

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**Name: Sanyam Jain (2017A7PS0014P)**

### **Student Write-up**

**Short Summary of work done:** First of all, we done a survey in which we found that the e-krishi website is very complex and none of the farmers uses it. Also, since the farmers don't fill forms online, they do it manually so then this hard copy data is converted to soft by some data entry officers. To solve the above problem, we designed and created a whatsapp chatbot and an OCR. WhatsApp chatbot is for farmers to know any information regarding krishi and various schemes. Now they don't have to come to zonal agricultural office again and again. Also OCR will directly convert the hand written text into soft database which will save a lot of time of the officers.

**PS-I experience:** My PS-1 was very good. Office was very good. Mentor was very workaholic and always inspired us. Working in a government office was a different experience compared to others. In spite of work, we enjoyed a lot. And finally, the department was very happy with our work as we were the ones to choose the project for us and finally completed it.

**Learning outcome:** The main thing I learnt is how to work as a team and how to convince someone on your point. I came to know how government program and projects work.

For my project, I learnt python and various other libraries in python.

**PS-I is an exposure oriented course:** Yes. I agree with this. PS-1 helped me knowing how the government departments actually works. The various activities during PS-I helped me in improving my communication skills and presentation skills.

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**Name: Sarvodaya Singh (2017A3PS0363P)**

### **Student Write-up**

**Short Summary of work done:** We visited the zonal agricultural office of Mapusa and Ponda, found out the problems in the current process which were being faced by farmers and the employees. We questioned the farmers to find their problems through questionnaire. Then, we analyzed the results and worked on developing a WhatsApp Chatbot for easing the communication and an OCR software for ease and automation of data entry process. We learnt technical skills like Coding, Machine Learning, etc and exposure to how things work in government offices.

**PS-I experience:** It was a fun and good learning experience. We got to know about how things work in a government organization from the grass-roots of the department to the very top.

**Learning outcome:** We learnt technical skills like Coding, Machine Learning, etc and exposure to how things work in government offices.

**PS-I is an exposure oriented course:** I completely agree to the above statement, since it was my first experience of a real life job, now I know what to expect after I got a job.

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**PS-I station: Department of Health & Family Welfare, Govt. of West Bengal, Kolkata**

**Student**

Name: Harsh Vardhan Mishra (2016A1PS0643P)

## Student Write-up

**Short Summary of work done:** The project assigned was on ways to reduce waiting time in public private partnership based diagnostic services in medical college & hospitals which include MRI and CT scan services. The project included studying samples at the field of study and determining whether the average time was on the higher side or was within the comfort level of patients. The waiting time was associated with patient satisfaction and overall patient experience. The project included the study of the process of MRI and CT scan and also the mechanism of the whole process. The average time of both MRI and CT scan was studied and found to be dependent on a case to case basis. Two types of waiting time were observed – Appointment and Queue Waiting Time. The reasons for both the waiting times were different and the solution approach to the two were also different and were proposed in the report. The PS-I also included a visit to two other hospitals other than the site assigned. The visits were for orientation purposes and were conducted to give a brief overview of the projects in action in those hospitals and also to observe the working of the hospital. The visits included study tour of the hospitals and the important points were discussed and noted down by the PS – I students.

**PS-I experience:** PS-I at Department of Health & Family Welfare, Government of West Bengal was a great experience and the whole team learnt about the functioning of hospitals and it was an amazing experience to be able to contact directly with the highest authorities of the PS-I station.

**Learning outcome:** PS- I was a learning experience especially because the PS-I students got to know about the working of the Government Hospitals. Each group worked on their projects and got to learn a lot from the experience. My group got to know about the process of MRI and CT scan and also the whole mechanism in place. Also got to know about the waiting time associated with the scans and the reasons for the waiting time. Solutions to the waiting time were presented in front of the officials from the station. Got to know about the authorities of Department of Health & Family Welfare, Government of West Bengal and the interaction with them was also a great informative exchange.

**PS-I is an exposure oriented course:** PS-I provides great exposure to students who are new to the corporate world and hence it is a great course included in the BITS Pilani curriculum. The exposure provided to the students helps in identifying where the students stand in the face of the corporate world. Interning at different stations and sharing experiences also widens knowledge levels.

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## PS-I station: Deshpande Foundation, Hubballi

### Student

Name: Rishi Nair (2017A3PS0453G)

### Student Write-up

**Short Summary of work done:** I mainly worked for data analysis, publicity and media outreach here along with mini projects on cost benefit analysis and market research. In data analysis, I have analyzed the admission application data to one of the fellowship program in Deshpande Education Trust (DET) and have drawn insights from the analysis of the data using advanced tools like Visual Basic for Applications (VBA), Macros, Pivot tables, Pivot Charts and Slicers. During the first half of the internship, I was actively working with the publicity and media outreach team and this led to me curating a social media post for Deshpande Foundation Facebook page, taking an interview of an eminent employee here and writing an article for the monthly magazine. I have also compiled documents on cost benefit analysis and market research along the way.

**PS-I experience:** It was good since Hubballi is a good place.

**Learning outcome:** Understood the importance of uniformity of data and its classification to analyze data in a proper way and draw out conclusions from it. Learned the basics of VBA, macros and creating buttons in excel. Learned to use pivot tables and charts to present and analyze data effectively and more importantly to use Macro enabled buttons to automate all tasks related to the analysis efficiently.

I learned about the decision-making tool called cost-benefit analysis. Compared the similarities and differences between CBA and SROI. Learned the difference between CBA and SROI and when each is used, or their combination is used. I also realized that slicers created a very simple user interface to pinpoint to the data that needed to be analyzed.

**PS-I is an exposure oriented course:** Yes. I do agree that PS-I is an exposure oriented course since it helped me get exposed to a few new unexplored things, didn't dive deep into any of them, but got a good grasp of each of them.

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**Name:** KUNDA SATYANARAYANA (2017A7PS0095P)

### **Student Write-up**

**Short Summary of work done:** My work at Deshpande foundation can be divided broadly into three domains.

Public Relation & Media Outreach

Data analysis

Content Development (Offline Pedagogy, Lesson plans)

First part, I managed various responsibilities as a part of Media team. Sandhya ma'am was our POC at Deshpande.

Second part, the data analysis department is in its growing stage. So, I did various comparative data analysis on many large databases.

Third part, I have essentially decided what the teacher should do, every minute in the class over the year. Lesson plans were created to ensure maximum participation of the students for a better learning experience.

**PS-I experience:** Orientation

Tour of the 3 offices of Deshpande Foundation in Hubballi

Interests gathering

Selecting the domain interested

Working on various problems in that domain

**Learning outcome:** Even though, I gained much work related knowledge, I am very grateful for this PS-I experience, where I had learned the company's hierarchy and how to get help in problems faced, whom to ask. How to communicate and giving insights and updates to your superior.

**PS-I is an exposure oriented course:** Very real exposure to the actual office experience, which could've been very difficult to adjust to on job. One gets acquainted with the various nuances of the daily office work and understanding of the various departments at work. How to maintain a healthy working relationship with them all.



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**Name: Nilanjan Majumder (2017A5PS1124P)**

### **Student Write-up**

**Short Summary of work done:** Market Analysis - Making an extensive list and create an in-depth analysis of relevant NGOs.

Operational Cost Cutting - Finding methods to reduce 'cost per beneficiary'.

Data Analysis - Analysis of placement data of students of Deshpande Foundation.

Finding insights and creating strategies from the data to streamline the workflow.

**PS-I experience:** My PS-1 experience was quite enriching. Co-workers were very helpful and the work was not boring.

**Learning outcome:** Learnt about data analysis.

**PS-I is an exposure oriented course:** Yes, it is. The more you talk to your co-workers and supervisors, the more task you will be given and the more you will learn.

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**PS-I station: Food, Civil supplies and Consumer Affairs Department ,  
Jaipur**

### **Student**

**Name: Sanyam Jain (2017A5PS1120P)**

### **Student Write-up**

**Short Summary of work done:** The SDG Cell at the Department of Economics and Statistics deals with the SDG Goals 2030 and how the indicators can be fulfilled by 2030 to make Rajasthan SDG accomplished State. Under the guidance of the SDG cell,

I have worked under the project of developing the Rajasthan State Index for the SDG Goals 2030, in order to show the district wise performances and ongoing strategies by the government of Rajasthan in order to track and increase the productive quotient towards SDG Goals 2030. By developing the SDG Rajasthan Index, Rajasthan is going to be the first state to prepare a District wise performance report on the indicators under SDG 2030 among all the states in the nation. I am really fortunate to work under the guidance of the mentors as i did inculcate many skills. I learnt a lot about the working of the departments under DES and how the economic survey and budget making is processed and sampled before publishing. Apart from this, I learnt designing by ADobe photoshop and Illustrator and I also learnt the normalising function for calculating the index score for SDG 2030.

**PS-I experience:** Within a week of PS-I, I was fortunate to get the opportunity of attending the SDG orientation which was attended by many statistical officers, I got a chance to meet them and interact with them. I also attended the state conference for SDG where many civil servants gave their precious thoughts on fulfilling the SDG Goals. The work under DES also involved contacting the other departments and going to the different departments if needed in order to collect the relevant data, which has helped me to learn the ways of communicating with the government officials. Overall, my PS-1 experience was very good and I will remember it forever.

**Learning outcome:** I got the opportunity to know about the functioning of the government of Rajasthan and how they work tirelessly for ensuring best outcome for the state. I also got a lot of exposure about the Sustainable Development Goals 2030 which is now a days a very trending topic as if they are fulfilled then not only our state but our nation will prosper endlessly. I also got to learn the ways of calculating the SDG index score by arithmetic mean and normalizing formula given by India index for SDG 2030.

**PS-I is an exposure oriented course:** I totally agree on this statement as there is no such route learning in PS-1. With such great PS-I stations and a systematic grading scheme students get a lot of exposure as well as they inculcate many skills, so yes PS-1 is an exposure oriented course.

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**Name: Anurag Dalmia (2017B3AA0898H)**

**Student Write-up**

**Short Summary of work done:** I got to learn about the economy of Rajasthan and the industrial sector of Rajasthan. My project was about analyzing the industrial sector of Rajasthan and finding its prospect in the future economy of Rajasthan. As the economy moves from lower to higher stages of development, there occurs a shift from simpler to more modern and complicated techniques of production on the one hand and from primary to secondary and/or to tertiary sectors on the other. But Rajasthan and India, in general, jumped from agriculture to services sector. I performed forecasting and build regression models to predict the future values and the variables which significantly affect the Industry value added to GSDP.

**PS-I experience:** It was a wonderful experience to see how the department works and releases reports of the economy. It was good to work on the project as it was helped my apply economics practically. In all, it was a fulfilling internship.

**Learning outcome:** I got to learn about the economy of Rajasthan and the industrial sector of Rajasthan. I learned how statistical models can be used for prediction and determining significant variables affecting GDP components. It also helped me enrich my skills in R programming.

**PS-I is an exposure oriented course:** PS-1 should be an exposure oriented course and students should learn as much as they can from that internship if its in their domain of interest. This will give them a real industrial exposure and the interns should be allowed to participate and assist in the project ongoing in the company as per their abilities as it gives a real experience of how a job will be like.

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**Name:** [Rajeev Singh Naruka \(2017A7PS0010P\)](#)

## **Student Write-up**

**Short Summary of work done:** Since the directorate deals with economy and statistics of the state, We had a lot of state-wide data of different sectors of economy available for analysis. So, I was able to develop a predictive computation model with the help of Artificial Neural Networks and other mathematical models like Deep Learning (back-propagation), feed-forward, etc. The model was used to predict the yield of major crops in Rajasthan (any particular district, wheat in particular) with the help of attributes like rainfall, solar irradiation, humidity, etc. by training the model with the data available for past years. In the process, I also learned about the other predictive models like Bayes, Decision Tree, Lazy, etc. used in classification and other problems.

**PS-I experience:** The overall experience at DES, Jaipur was fulfilling and helpful. I learned a lot in the field I wanted i.e. Machine Learning. The staffs were quite helpful throughout the PS-1 period. The mentors and instructors were very understanding and kind to help me out wherever and whenever I needed.

**Learning outcome:** Understanding the predictive computational models in the field of Machine Learning and Deep Learning (Artificial Neural Networks, feed-forward, Back-propagation, Bayes, Lazy, Decision Trees). Application of ANN in real life scenarios. Developed and understanding of the office work culture too.

**PS-I is an exposure oriented course:** There is no doubt that PS-I is an exposure oriented course. The first-hand experience we gain while working under a mentor or a superior officer is very valuable. Understanding office culture and working under supervision gives you a sense of responsibility and certainly provides much-needed exposure for the life ahead.

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**PS-I station: Funskool (india) Ltd. , Goa**

**Student**

**Name: Narvekarutpal Rajeev (2017B5A40141G)**

**Student Write-up**

**Short Summary of work done:** A case analysis of standard manufacturing of the paw patroller at Funskool. Involved Takt Time calculation and concepts of Lean Manufacturing.

**PS-I experience:** Good. Instructor was understanding, Funskool staff were cooperative.

**Learning outcome:** I learnt about factory and shop floor management which is bound to be useful.

**PS-I is an exposure oriented course:** I agree. My PS-I station exposed me to not only the technical side of a manufacturing plant but also the planning and maintenance side of which I earlier had no clue.

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**Name: Vrinda (2017B1A31316H)**

### **Student Write-up**

**Short Summary of work done:** Production enhancement

Calculated OEE overall equipment effectiveness and TPM (Total Productive Maintenance) to measure the current levels of production and use it to improve overall production levels.

Did this for quite a lot of data and thus also suggested the required changes.

Like for the data that we got, the company lacked in the working hours of the machines compared to the available hours, also called as availability. Increasing availability will increase OEE and thus production.

**PS-I experience:** It was quite good experience. Learnt about new things that might help me in my future.

**Learning outcome:** Learnt about how to increase production in a factory.

**PS-I is an exposure oriented course:** Yes it is.

We get to learn the things practically rather than just being theoretical.

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**PS-I station: G.M.R. Varalakshmi Foundation, Hyderabad**

**Student**

Name: Anyam Sai Praneeth Reddy (2017A3PS0513H)

### Student Write-up

**Short Summary of work done:** We, our team worked on two projects, they are impact assessment of nutrition supplement centre which provide nutrition supplement to the pregnant and lactating women, so we had to assess its reach, outcome, process, etc and our next project is collecting national performance standards of the projects that are taken by GMR VF and compare them to this center.

**PS-I experience:** It was better than I expected, I met new people which changed my perspective. I got to know about how a corporate sector works.

**Learning outcome:** Improved language usage, soft skills, working skills.

**PS-I is an exposure oriented course:** I recommend it to the further batches

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Name: G.S.S Sai Anurag (2017ABPS1634H)

### Student Write-up

**Short Summary of work done:** On the first day, we were given the choice to choose between various projects. The project we chose was "Identifying startup ideas / rural enterprises in the nearby villages". We were asked to do a survey in the villages to identify what the people here want. Then, we decided to implement the idea of polyhouse in one village in which agriculture was more prominent. Also, we decided to implement organic farming methods to get better yields. We also proposed to start a dairy farm in one village where there was no arable land. So this was my work experience in GMR Varalakshmi Foundation.

**PS-I experience:** The best thing about this station is that we got to interact with farmers and villagers. Not only farmers but we also got to interact with higher officials such as the deputy director Dept. of horticulture, Govt. of Telangana. My overall experience was very good.

**Learning outcome:** Develop soft skills was the major learning outcome.

**PS-I is an exposure oriented course:** Definitely yes! Because we got to know about how an organization works. In my opinion this is the best industry exposure a second year student could get.

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**Name: K S Kaushik (2017A4PS0714H)**

### **Student Write-up**

**Short Summary of work done:** Our project involved identifying different start-up ideas and rural enterprise, and rank them according to their feasibility of implementation at this station. The projects were aimed to help the villagers in the villages under this not for profit foundation.

**PS-I experience:** We considered many projects which would help the villagers and we came up with one idea for each village. We wrote 3 project proposals and submitted them to the head of this foundation. We considered the budget of the foundation, cost of projects and their net benefits and ranked them for their implementation here.

**Learning outcome:** We learned, up to an extent, project appraisal, and how to come up with a project idea, write up a report in it, considering it's cash flow analysis and finally pitching the project to concerned authorities.

**PS-I is an exposure oriented course:** PS-I definitely helps us understand how an organisations work, and how day to day work is done.

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**Name: Vansidhar Reddy (2017B3PS1012G)**

### **Student Write-up**

**Short Summary of work done:** Worked on a project related to the field of education, analysed the marks of children who were enrolled into gifted children scheme. Gave some advises to their parents and also interacted with the children about their academics.

**PS-I experience:** It was quite good, was able to understand different perspectives regarding the education. Factors that do affect the academic performance of a child.

**Learning outcome:** Became aware how a NGO operates, its constraints, the amount of change it can get into life's of people.

**PS-I is an exposure oriented course:** We got a good exposure about how the things work in real life situations. You know the problems , you come up with better ideas.

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**Name: Meera Ramprasad (2017B4AA1021G)**

### **Student Write-up**

**Short Summary of work done:** Development of digitalised content for two courses conduct by GMRVF under the PMKVY, Government of India.

**PS-I experience:** Made 100% use of the opportunity.

**Learning outcome:** Learnt how a professional environment works, familiarised with the corporate world.

**PS-I is an exposure oriented course:** Yes, it enables you with the requisite office soft skills.

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Name: Jaswanth Sabbiseti (2017A7PS0126H)

### Student Write-up

**Short Summary of work done:** We conducted online examination for the students and we developed a web portal to evaluate the students performance.

**PS-I experience:** Very Good

**Learning outcome:** I learnt how an organisation works and I learnt web development and I used my PS-I period in a good, effective way.

**PS-I is an exposure oriented course:** Yes

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**PS-I station: G.M.R. Varalakshmi Foundation, New Delhi**

### Student

Name: Surya Vatsalya (2017A7PS0032G)

### Student Write-up

**Short Summary of work done:** GMR has a CSR branch to help poor and handicapped people to avail the facilities provided by government. Unfortunately, the branch was working at a very root level and kept track of everything in handwritten registers. We created a GUI interface using language python and library Tkinter. It was used to enter data which entered the data through predefined queries in sql. This was used to keep track of those who applied / received the facilities. The credentials were also entered in a excel sheet through openpyxl library for analysis by the main centre.

**PS-I experience:** It was nice working on practical issues and in a corporate environment.

**Learning outcome:** We learnt a lot of databases, problem solving in real life, how to interact with sensors and work in a group.

**PS-I is an exposure oriented course:** I agree, it is true.

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**Name:** Dewansh Kaloni (2017B5A80688P)

### **Student Write-up**

**Short Summary of work done:** The aim of the project is to create a software application to help the institute we are working for, G.M.R. Varalakshmi, to keep track of their items sold through empower department of the organization.

This project was designed in such a way to ensure that all problems faced by the “empower” department of the GMR Varalakshmi foundation regarding their billing format and current logistics are resolved to utmost accuracy. Analysis of project working and forming out outlook on how to deal with the project. “Development of Automated Billing Software” topic was chosen.

A problem was raised of difficulty in manual billing system by the organization. After deeply studying their existing methodology and working of the department. We were given time to come up with a solution.

**Problem:** - The institute runs a sub-division named “Empower” which faces the problem of having manual billing system for a large facility.

**Solution:** - To have an automated billing software which resolve the issue.

**PS-I experience:** It was good as the working environment was great and people were very helpful and cooperative.

**Learning outcome:** Marketing skills, Coding, Macros Application.

**PS-I is an exposure oriented course:** Correct, PS-1 provides opportunities to understand the physical world closely.

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Name: Abhimanyu Gulia (2017A8PS0799H)

### Student Write-up

**Short Summary of work done:** We created a database system for managing student data. With the help of python, excel we successfully completed our project.

**PS-I experience:** It was good. It helped me to increase my skillset. Also, provided exposure.

**Learning outcome:** I learnt python, data management.

**PS-I is an exposure oriented course:** Yes it's true that "PS-1 is an exposure oriented course". Its necessary for student to get exposure at the right stage. It will also help us to build our CV. Also, if student wants to do MS/MBA from foreign, it's very necessary to do PS-1.

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### PS-I station: Helpage India, Hyderabad

#### Student

Name: Yammanuri Lokesh Kumar (2017AAPS0383G)

### Student Write-up

**Short Summary of work done:** We travelled far and wide to visit helpage offices to get a feel for their large variety of work, taking case studies where ever we went, we organised digital literacy events, visited RDO offices and marked world elders abuse awareness day successfully. Further, more we toured the city in search of those who are willing to partner up with helpage.

**PS-I experience:** Better than initially expected it was somewhat fun, considering we got a lot of work done and enjoyed as a group. We got due recognition for our deeds and I believe it also reflected in our evaluation which was satisfying.

**Learning outcome:** Multitude of things ranging from marketing skills to teaching in digital literacy events, also the natural result of respect elderly.

**PS-I is an exposure oriented course:** 100% true, every one had to meet people, learn the map of Hyderabad, deal with dignitaries and so on.

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**Name: Vaishnavi Reddy S (2017ABPS1431H)**

### **Student Write-up**

**Short Summary of work done:** I mainly worked in the sponsorship and media marketing team wherein we were worked on making videos, brochures and presentations for the publicity of certain programs by helpage and working on getting sponsor for the same.

**PS-I experience:** It was an add on to what we were already doing in campus. But as it was for an NGO, it was an enriching experience.

**Learning outcome:** It was majorly about values. And also about how to balance various things given to us.

**PS-I is an exposure oriented course:** For us, it wasn't about technical experience. This was mainly about the exposure on the harsh realities of life.

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**Name: Sathyadev K (2017A8PS0697H)**

## Student Write-up

**Short Summary of work done:** Data pertaining to different regions were analysed to come up with statistics that helped the organisation to come up with advocacy statements.

**PS-I experience:** The experience was new working in an NGO. The social work is a different field from what we normally experience in daily life.

**Learning outcome:** Detailed understanding of the advocacy process in organizations fighting for their cause.

**PS-I is an exposure oriented course:** True.

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**Name:** [Narendra Maheshwari \(2017D2TS1239P\)](#)

## Student Write-up

**Short Summary of work done:** Helpage India is an NGO and there were many projects monitored by Helpage. In this, we have travelled a lot during the first month and the expense were done by on our own. We went to many villages and tried to understand their problems. We have visited many old aged home and got to know about their issues. Our project work majorly focused on elders and their issues and how we can try to resolve it. We were also a part of medical health care unit where we visited many slum and local areas through a medical mobile van which was a blessing for the people of that locality especially elders as it used to provide them free medical assistance and medicines and then we were part of resource mobilization team who's main motive was to raise funds from schools for elderly people.

**PS-I experience:** The experience was quite good. We got to know about many people and their problems. We came to know that we can interact with the people who are specially abled.

**Learning outcome:** The restlessness turned into a cool and calm behavior and we have developed a feeling of care towards the grey people of the society.

**PS-I is an exposure oriented course:** Yes it is, it was wonderful experience.

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**Name:** Narlagiri Shilpa (2017B3PS1251H)

### **Student Write-up**

**Short Summary of work done:** I got the PS-I station called Helpage India. It's an NGO which works for the rights of senior citizens. Here, they divided us into groups where we assigned a project called Age Care (which works on helpline centre and visiting old age homes). we have done on updating the excel sheets of old age homes which were given by our In-charge and visited 13 to 15 old age homes in and around the city.

**PS-I experience:** PS-1 is basically an exposure to field work. Where I got experienced to field work like going to old age homes talking to senior citizens about their problems and how they have been treated by their childrens. We have also taken some helpline calls regarding abandoned cases and taken them to police stations and joined them in old age homes.

**Learning outcome:** I learnt how to file a case in the police station about abandoned cases and how to get no objection letter. I learnt how to use excel software in updating the old age home sheets.

**PS-I is an exposure oriented course:** Yes, PS-1 is an exposure oriented course because we have done statistics in updating the excel sheets and made graphs with excel tools which helped us to analyse the data and this made our work simple.

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**Name:** Parkibanda Sri Lakshmi (2017B5PS1254H)

### **Student Write-up**

**Short Summary of work done:** My work is to visit the village and interact with the elderly people about their lifestyle and problems. And also visiting the schools to inculcate love, care and respect in young generations towards the elderly people, collecting funds and using them for the benefits of elderly people.

**PS-I experience:** It was a wonderful experience working in helpage and the instructor of our team has helped us a lot and guided us through out the working tenure.

**Learning outcome:** I have learned that helpage serves the people who are needy and poor. I also learned about the senior citizens, problems they are facing and how to overcome their problems. I also get to know about sections and acts which are used to empower senior citizens.

**PS-I is an exposure oriented course:** Yes its true, because everyone had to visit places, meet the people and so on.

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**Name: Isha Nagpal (2017B3TS1203P)**

### **Student Write-up**

**Short Summary of work done:** Marketing and sponsorship for the organisation.

1. Designed their brochures.
2. Event management
3. Made videos for publicity
4. Worked on CSR sponsorship

**PS-I experience:** Good

**Learning outcome:** Learnt adobe softwares and soft skills majorly.

**PS-I is an exposure oriented course:** Yes, for a college student industry exposure is must before we sit for placements. PS-1 was not just about industry exposure but life exposure as well.

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## PS-I station: HelpAge India, Shimla

### Student

Name: Prateek Tayal (2017B3A30485H)

#### Student Write-up

**Short Summary of work done:** First, I was assigned work on MHU (mobile health unit). I learnt its working and after that helped in maintaining records of the patients. Then, I was assigned target to enroll advantage care and associate cards. Then, I was assigned work in livelihood program which include visiting and understanding their working of home care, old age, day care center.

**PS-I experience:** It was very pleasure experience. I came to know about the reality of life, how senior citizens are important to the society.

**Learning outcome:** Learned organization skills, it helps me creating a sense of discipline in my life. How to take responsibility in life, it helps me creating strong mutual trust and human relations.

**PS-I is an exposure oriented course:** Yes, it helps me creating management skills, it shows the real reality of life. Overall, it was great experience of life.

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Name: Yash Jain (2017A7PS0186H)

#### Student Write-up

**Short Summary of work done:** First 20 days of our work was at rampur village which is 150 kms. from shimla, daily field trips were made with MHUs there. Rest of the 30



days were in shimla reviewing various schemes by HelpAge India. Field trips were made to different Old Age Homes, Day Care Homes, Home Care Sites etc. AdvantAge Cards were also made by us which focused on the interaction with people at our homes only.

**PS-I experience:** PS-1 experience at HelpAge India, was an amazing one. The place like shimla is heaven for this time of the year. I don't think I could get this type of experience anywhere other than this PS-I. This internship has made me real my responsibilities towards the elderly.

**Learning outcome:** The main learning outcome of this PS-I was getting to know about the main problems of the elderly and their solutions and help them live a healthy and independent life.

**PS-I is an exposure oriented course:** The kind of exposure here at my PS-I has been eye opening. We often ignore our elders and this PS-I has made me realise what I am an individual can do for the society.

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**Name:** [Geetansh Hans \(2017B3A81079H\)](#)

### **Student Write-up**

**Short Summary of work done:** We were supposed to interact with the beneficiaries of HelpAge India in shimla and understand the schemes run by HelpAge India to uplift elders in shimla district. We made various case studies and we were briefly introduced with various schemes run by HelpAge India, shimla. We also visited Day Care Centre run by HelpAge, Home Care pilot scheme sites, sites of 3 MHUs and interacted with beneficiaries. We were also given a task of adding new members to advantage card scheme of HelpAge India.

**PS-I experience:** The experience was really good. We learnt a lot in these 2 months. We also experienced how difficult it is for the HelpAge India team to gain the trust of elders in order to introduce them to various schemes initiated by them.

**Learning outcome:** We learnt that the elders are being ignored by the society and the government and HelpAge is working really hard to uplift them and help them live a life full of dignity and respect.

**PS-I is an exposure oriented course:** The statement is totally true because you will never be able to experience these 2 months again in your life. We interacted with various elders and we also interacted with the staff of HelpAge India, Shimla office. It's really hard to get this kind of exposure somewhere else.

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**Name: Prabhnoor Singh Duggal (2017A4PS0654G)**

### **Student Write-up**

**Short Summary of work done:** First, I was given the job of understanding the functioning of Mobile Health Unit (MHU). Then after, I was done with that, my responsibility was to handle the details of anyone who visited the MHU and also make some case studies. On alternate Saturdays, my job was to maintain the records in a free eye check up camp organized by HelpAge. After that, I started with my livelihood program, which included visiting day care centres, home care centres and Old Age homes, my task in these locations was to understand the working and interact with the elderly.

**PS-I experience:** My experience at HelpAge was a great one. I learnt a lot of information about the challenges faced by the elders, the ongoing programs to support them and what in future would happen if no action is taken.

**Learning outcome:** The main learning outcome is about elder abuse. Also, we learnt to interact with people and gain some confidence while doing so.

**PS-I is an exposure oriented course:** I fully agree with this, the exposure I got here has no other alternative, I could not have gained this experience anywhere else.

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## PS-I station: Indian Red Cross Society (IRCS), Chennai

### Student

Name: Santosh Raghav Srivatsan (2017A8PS1924G)

#### Student Write-up

**Short Summary of work done:** My project was to design an embedded system for the blood bank. The system displays the stock details of all the blood groups. The data to be displayed is sent to the system via bluetooth using an android application. The first step in the project was to decide all the hardware components and finalize the proteus connections. The next step was to program the Arduino and the last step was writing an Android application to store details of all the blood groups and send it to the system via bluetooth.

**PS-I experience:** The organization did not have projects for the students initially. However, they were receptive to our ideas and suggestions and gave us a comfortable environment to carry out our work.

**Learning outcome:** Steps involved in designing an embedded system. Arduino programming using C. Android programming using Java.

**PS-I is an exposure oriented course:** I agree. Students often find themselves in a different city and have to learn how to manage their work and leisure time. This is a valuable learning experience which will prove useful later on. Also, students have to interact with the organization and develop a product which meets the organizations requirements. This will help improve the student's social and communication skills. Students also gain a lot of in depth concepts related to their project. Since PS-I is a practical course, it helps solidify a lot of concepts taught in college.

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Name: Aditya Joshi (2017A8PS1926G)

#### Student Write-up

**Short Summary of work done:** Built a chatbot which helps patients of the hospital for scheduling appointments with the doctors.

**PS-I experience:** It was a good experience with a proper working environment.

**Learning outcome:** Learned various concepts in Natural Language processing and Machine Learning.

**PS-I is an exposure oriented course:** Yes it is. It provides a working environment which is a good exposure for students.

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**Name:** Navneet Raghunath (2017A3PS1902G)

### **Student Write-up**

**Short Summary of work done:** The project given to me as part of my PS-I was to develop an application to facilitate easy communication at the time of a disaster. The application had to enable the disaster management team to communicate crucial information with relief volunteers spread across the country.

**PS-I experience:** My PS-I experience was an enlightening one. I got a chance to interact with professionals from an esteemed organisation. It gave me an opportunity to work with new people as a team to accomplish a common goal.

**Learning outcome:** PS-I taught me skills such as professional and interpersonal communication as well as team work and conflict resolution. PS-I also enables me to learn web development which will prove to be a useful skill in the future.

**PS-I is an exposure oriented course:** The statement is valid and justified. PS-I taught me the inner workings of a professional organisation as well the work ethic required to be a part of the corporate ecosystem.

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## PS-I station: Indian Red Cross Society, Bangalore

### Student

Name: Kartikeya Aryan Agarwal (2017A3PS0253P)

#### Student Write-up

**Short Summary of work done:** Building an application for the IRCS and visiting blood camps and Red Cross affiliated organisations so as to understand their working methodology.

**PS-I experience:** It was great.

**Learning outcome:** Application development  
Social work  
Being more creative  
Discipline + Time Management

**PS-I is an exposure oriented course:** As for me, I got to learn a lot from this organisation. Not only that IRCS is not only a blood bank, but also that I got to learn how an organisation works. It taught me to lead a more disciplined and time abiding life. Also, I feel that my public speaking qualities have improved, also in the various group discussions organised.

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Name: Ayush Chandak (2017A8PS0434P)

#### Student Write-up

**Short Summary of work done:** Made an official app for IRCS, KSB

**PS-I experience:** It was good got to learn many things.

**Learning outcome:** Learned App development.

**PS-I is an exposure oriented course:** Yes, it really provided the experience with how professionals work.

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**PS-I station: Indian Red Cross Society (IRCS), Hyderabad**

**Student**

**Name:** Uppala Sravanthi (2017B4AA1490H)

**Student Write-up**

**Short Summary of work done:** I digitalised few of there works like surveys I did them using google docs and reported the results which really helped them, it also reduced the time they spend on analysing data, created e-newsletters on canva, e-brochures on canva, wrote reports for the events, analysed data and submitted them in the form of pie charts.

**PS-I experience:** It was really a unique experience to work with a quasi NGO. I have many memorable experiences. I got to work with retired IAS officers, I learnt a lot from them.

**Learning outcome:** Data analysis, creating news letters using canva.

**PS-I is an exposure oriented course:** Yes, we got to know how the work with a quasi governmental organisation be like.

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**PS-I station: Indian Red Cross Society (IRCS), Mumbai**

## Student

Name: Shubham Jadhav (2017A8PS0802H)

### Student Write-up

**Short Summary of work done:** Making a user friendly dashboard for Indian Red Cross Society for their quality assurance program.

**PS-I experience:** The dashboard in which the Admin (IRCS, Mumbai Lab) and other participating labs (around 150 blood centres around India) could log in.

Admin can do the following tasks- 1) Assign tasks to other labs by sending the blood samples (physically, via post) and test reports (via website).

2) View the performance of reports sent by labs for various diseases.

3) Statistically analyse the report sent to find the best kit.

The labs will log in and can do the following tasks-1) Update the test report.

**Learning outcome:** We get to learn about HTML, JAVASCRIPT, CSS, PYTHON, DJANGO, PHP, MySQL, ATOM, SUBLIME TEXT.

**PS-I is an exposure oriented course:** Yes, It is exposure oriented course.

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Name: Kush Jain (2017A3PS0425G)

### Student Write-up

**Short Summary of work done:** Designed a website for the External Quality Assurance Scheme (EQAS) program for proficiency testing of samples held by Indian Red Cross Society - Mumbai. The work involved frontend and backend development of the website and database management system.

**PS-I experience:** It was a good experience and had various learning outcomes. The project gave me an insight into the timeline and methods involved in a project by an organization. I also learnt about key communication skills, teamwork and perseverance.

**Learning outcome:** Learnt about the working of a blood bank organization and the steps involved in developing a website.

**PS-I is an exposure oriented course:** PS-I gives great insight into the working of a project in any industry. It teaches us to build skills which are not learnt in the courses taught at BITS. It also teaches necessary skills needed for the corporate world.

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**Name:** Kirti Sharma (2017ABPS0310P)

### **Student Write-up**

**Short Summary of work done:** To digitalize the manual work done at IRCS for the EQAS / proficiency testing, We developed a software package for the labs in contact with IRCS and a python based GUI for IRCS to send and receive report data for the statistical analysis of the tests carried out for different disease and different kits.

**PS-I experience:** Gained a lot in terms of technical knowledge and also found solutions to the hurdles faced during the development of the software.

**Learning outcome:** In terms of technical knowledge, learnt using GWT, CMD, SQL injection, PHP, Apache and Ajax.

**PS-I is an exposure oriented course:** The statement fits true in all the aspects. PS-I is a programme for freshmen to understand the working of professional world and make themselves to learn all the soft skills needed to fit in a firm and a place.

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Name: Dishita Malav (2017A7PS0164P)

### Student Write-up

**Short Summary of work done:** Digitized the process of EQAS (External Quality Assurance Scheme) by automating the process of data acquirement and statistical analysis.

**PS-I experience:** It helped me to learn time management and the importance of teamwork. It increased my knowledge of Python and improved my coding.

**Learning outcome:** Learnt about how a blood center works and the programming skills required for the project.

**PS-I is an exposure oriented course:** PS-1 teaches you the skills which are not learnt in the courses at campus. It gives a realistic idea of the corporate world and provides insight into the working of the assigned industry.

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Name: Moitrish Majumdar (2017B4A70750G)

### Student Write-up

**Short Summary of work done:** The project allotted to me during PS-I involved the development of a website for IRCS. The website is to be used to administer the External Quality Assurance Scheme (EQAS) of IRCS. Under this programme, various participating blood banks across the country are scrutinised for the quality and accuracy of their testing labs. The different participating blood banks have labs which test blood samples for infections like HIV, malaria and syphilis. The aim of the EQAS programme is to compare the test results of participating labs and determine whether these labs undertake the testing of blood samples accurately or not.

Currently, the EQAS programme is administered manually and the website would digitise this process and is designed such that labs can upload test results online and these results can be analysed and checked by IRCS at the click of a button.

**PS-I experience:** During the course of PS-1, I was able to learn several new skills which will be crucial for my future endeavours. Moreover, I was exposed to an

organisation and its various departments. I was able to observe how the organisation delegates work to departments according to its requirements. Moreover, I realised the importance of continuously optimising an organisation's departments to ensure its smooth functioning.

**Learning outcome:** I was able to learn new skills in the area of web development and database management. I also learnt how an organisation functions and effectively coordinates between all its departments.

**PS-I is an exposure oriented course:** PS-I definitely provides exposure to real-world intricacies involved in operating an organisation. It also offers exposure to the importance of deadlines and submissions with respect to project completion.

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## **PS-I station: Indian Red Cross Society Blood Bank (IRCS), New Delhi**

### **Student**

**Name:** Shubham Gupta (2017A7PS0126P)

### **Student Write-up**

**Short Summary of work done:** Revamped the existing e-newsletter. Changes its template to a more modern one, automated some of the data entry process using mails and whatsapp chats.

**PS-I experience:** The experience was good. We got to learn new techniques and ways to use these techniques in real world scenarios.

**Learning outcome:** We learned new languages and we learned the difference between prototyping, testing and actual production.

**PS-I is an exposure oriented course:** This is quite true as PS-1 provides opportunity to work in industry, gives exposure in industry related fields and activities as well as provides an insight as to how work is done in an industry.

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**Name: Om Aditya Paliwal (2017A8PS0557H)**

### **Student Write-up**

**Short Summary of work done:** I had been given the project of electronic newsletter in which we had to make a modified newsletter as the previous newsletter was old and in a pdf format. We made newsletter look attractive with a blog like structure with 9 files that can be attached and .txt files can be linked to update newsletter easily. We learnt and used HTML CSS JavaScript frameworks and jQuery to make frontend and backend of our website. We also added print option to make all news article appear in one page.

**PS-I experience:** It was a great experience in red cross society working for their electronic newsletter. We learnt HTML, CSS, JavaScript during the first month and then made frontend part in the fourth week and final backed linking in the final week of our work. We also added print option to make all news article appear in one page. It was overall a good experience to know about the work going on in such an organisation and helping them. Also, reaching there on time and working 10 to 4 helped us in being punctual and disciplined.

**Learning outcome:** I learnt HTML, CSS, JavaScript, jQuery and applied their knowledge on making an attractive website with my group members. I learnt how to make frontend attractive and link files using backend JavaScript.

**PS-I is an exposure oriented course:** PS-I is truly an exposure oriented course. The knowledge we gain doing real life work with application in their day to day life. We get to know new people, how to be punctual and be disciplined. Giving quizzes, group discussion and seminar on our work on a regular basis helps us to access our work and not let ourselves become lazy. Overall, it was a great experience in PS-I.

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Name: Abhishek Bhardwaj (2017A7PS1497H)

## Student Write-up

**Short Summary of work done:** My work as an intern of red cross society was to work on project entitled "DEVELOPMENT OF A VOLUNTEER DATABASE USING DRUPAL 8 FRAMEWORK". This project will move manual filling of form to e-form which would aid in creating a systematic database which is not there with the institute at present. Also, views were created for searching of volunteer details based on various filters like state, district, age, gender, type of training undertaken/working which will help the institute to get the information as per the requirements. Further, this project will provide access to the volunteer to make necessary changes like change in mobile no. or address and will regularly update their details in database which keeps the database up-to date.

**PS-I experience:** PS-I taught me to work under an organisation, respect the various level of organisation, regularity and punctuality and work under pressure to complete the task on various deadlines and get the best out of yourself in such pressure conditions. My PS-I station was an NGO which also taught how to work selflessly for the betterment of society and help the ones in need in cases of emergencies or natural calamities. Our project was also aimed to help this institute in development of volunteer database and help them to retrieve this when and where required to fulfill the requirement.

**Learning outcome:** Web development was the main concern of the project and we learnt HTML, CSS, JavaScript as a part of this project. The web development platform Drupal 8 was the main software we dealt with. We came across various modules of Drupal -8 to create web form and to view the database based on various filters that were implemented based on the requirements of institute. Web-form module was mainly used to create the web-form, View modules was used to create search view and taxonomy manager was also used to complete the requirement of various search fields.

**PS-I is an exposure oriented course:** Yes in my regards this statement is justified as per my experience. We learn to work in an organisation atmosphere and work well under pressure to perform and complete the task on deadlines.

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Name: Shubham Singhal (2017AAPS1741H)

### Student Write-up

**Short Summary of work done:** Our project was volunteer database through Drupal 8. In the starting week, we learnt the front end development and then we moved to the Drupal-8 CMS platform, as Red Cross uses Drupal 8. We used this to create a volunteer form for the organisation. We also created the search page with all the filters and roles asked by the organisation. All this work was done on a local host using MAMP.

**PS-I experience:** It was quite good. I get to know students from other campuses and their achievements. Through our PS station, we get to know different steps taken by the Indian Red Cross to help society. Also, being an NGO, we were given freedom to work out the things in our own way.

**Learning outcome:** I learnt how to apply our course knowledge in the industry and which courses will be more important for me to take in the future. It also helped me to improve my interpersonal skills.

**PS-I is an exposure oriented course:** PS-I gives an exposure about corporate culture. It also improves our interpersonal skills. Throughout our PS-I, different types of evaluation components are there which improves skills necessary for personality development like group discussions, seminars. Also, students get an opportunity to make themselves self learners.

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Name: Prem Gupta (2017A7PS0063G)

### Student Write-up

**Short Summary of work done:** IRCS is a voluntary humanitarian organization to protect human life and health based in India. Therefore, they are always in a need of volunteers who can help in the work. The volunteers also need to be trained before assigning work to them. Earlier, the process of volunteer registration was done manually. Through our project, we made it easier by making a webform in Drupal 8 website of IRCS. We also implemented a search page through which results can be

filtered and viewed easily. All work was done in Drupal 8 which is an open-source content management framework.

**PS-I experience:** The experience was great and we got to learn web development and Drupal 8. Our instructor and supervisors at the red cross were very supportive throughout the project. They helped us whenever we were stuck in our project.

**Learning outcome:** Learned about web development, Drupal 8, MySQL, time management and working in a team.

**PS-I is an exposure oriented course:** I would agree with this statement. When we were assigned our project it looked so difficult to complete but we worked on it learning something new everyday and completed it successfully. Had it not been for PS-I, we would have never touched Drupal, let alone work with it.

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**Name: Pranav Balakrishnan (2017A8PS0594G)**

### **Student Write-up**

**Short Summary of work done:** We developed an information board for IRCS blood bank to encourage people to donate blood and take part in the activities organized by the institution. This information comprised of units of various components of blood available in the bank, and the charges for obtaining those components. This had two implementations, one on an LCD screen and one on a combination of multiple LED matrices. The project required the knowledge of interfacing of various hardware components to achieve a cost effective, long term, error free and easy to troubleshoot solution.

The LCD screen implementation used a Raspberry Pi, a single board computer that ran on certain scripts in the Linux operating environment to automate certain tasks on startup and carry them out repeatedly after a given interval of time.

The other implementation involved using LED matrices that were controlled by an Arduino, a single board microcontroller. This implementation also used a script to monitor a website and continually extract data (using web scraping) from it to display on the LED wall.

**PS-I experience:** The experience was certainly something new and pretty exciting. It was the first time I was directly involved in an office's day to day activities and hence was pretty interesting. The work environment was also fairly relaxed and they went out of their way to help us with problems I had with respect to administration.

**Learning outcome:** I learnt quite a bit about interfacing various hardware components and some devices available for these applications. Also learnt about scripting and programming in both Python and C++.

**PS-I is an exposure oriented course:** Based on the experience at my PS-I station, I was exposed to a new environment. So it did certainly add some value to the administrative side. Technically there wasn't that much more exposure. The same things could easily be learnt by someone themselves when needed.

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**Name:** Kartikey Sharma (2017B5AA0420G)

### **Student Write-up**

**Short Summary of work done:** My project was to develop promotional content for IRCS in the form of videos. In a team of three, we covered events and conferences which took place at their national headquarters and compiled a synopsis video for each event which covered the key moments and acted as an informative video for the general public. We also developed an informative promotional videos for the courses offered by IRCS. All the videos went on their official website and on their official social media channels.

**PS-I experience:** Overall the experience was decent and the workload was less as compared to other projects.

**Learning outcome:** Learning outcomes of this project were,

1. Using a high end DSLR camera to shoot quality videos.
2. Learning the ethics of how to behave in an official conference.
3. Editing professional quality videos using Adobe Premiere Pro.
4. Analyzing YouTube analytics and studying social media trends.

**PS-I is an exposure oriented course:** It is an exposure oriented course, agreed. You get to know how organizations work, that's something which is very important to learn before you set foot outside the college.

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**Name: Radhesh Sarma (2017B4A70886H)**

### **Student Write-up**

**Short Summary of work done:** We were asked to prepare inoffice tools like Mass emailer / Mass SMS sender to help red cross staff to send mass emails. We were asked to prepare an editorial helper app which helps an editorialist to prepare a newsletter for Indian Red Cross Society.

**PS-I experience:** PS-I is an exposure oriented learning course which helped us to improve our presentation and communication skills.

**Learning outcome:** I learn python, how to use gmail API, use spacy library.

**PS-I is an exposure oriented course:** Yes, PS-I is an exposure oriented course.

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**Name: Abhinav Pathak (2017A7PS0937G)**

### **Student Write-up**

**Short Summary of work done:** Worked on TV display programming, electronic LED matrix board and video making and production.

**PS-I experience:** Working at IRCS taught me how to handle multiple projects at a time while accomplishing small goals at a time.



**Learning outcome:** Learnt how to make and edit videos, how to program RaspberryPi and Arduino to display things on variety of outlets.

**PS-I is an exposure oriented course:** PS-I does provide industry exposure and gives an experience that is required in order to prepare for the real world.

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**Name: Mehul Bhatia (2017AAPS0401H)**

### **Student Write-up**

**Short Summary of work done:** I was assigned a project to revamp the electronic newsletter of the organization. It was a good learning experience as I learnt web development for the project. I learnt various frontend and backend web development frameworks like HTML, CSS, Javascript, NodeJS, etc. And, I also gained valuable experience in team work.

**PS-I experience:** I had a good experience.

**Learning outcome:** I learnt web development.

**PS-I is an exposure oriented course:** Yes, I got exposed to real life problems in my PS-I. But it depends a lot on the individual. Like, one must try to get a project of interest which helps the organization. And, I got exposure to the way things work in an autonomous organization.

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**Name: Sarthak Checker (2017B5AA0649G)**

### **Student Write-up**

**Short Summary of work done:** Design an LED board array, using Arduino and Raspberry Pi that displays the number of blood units available in the blood bank.

Shoot and edit promotional and educational videos for the events and courses happening at our PS-I station, to increase the awareness.

**PS-I experience:** Our PS-I was good. The staff was very cooperative. The station had adequate facilities and was located at a convenient location. The work was challenging and likeable.

**Learning outcome:** I learnt programming an Arduino using Raspberry Pi. I also learnt high end video production software - Adobe Premiere.

**PS-I is an exposure oriented course:** Yes, I agree. It tells how to work with mentors and fellow colleagues. It tells us to work within deadlines and produce good work.

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**Name: Dharesh Vatsa (2017A1PS1100H)**

### **Student Write-up**

**Short Summary of work done:** We were supposed to make an e-newsletter for the organisation which would highlight the various activities being undertaken by the organisation at various levels and would spread the nature of the organisation's work amongst general public.

**PS-I experience:** It was a great experience where I learned both technical and personal skills. Through the project, I learnt the skill of web development and working on the project as a group helped me in learning an important values like cooperation and unity.

**Learning outcome:** I learnt full stack web development. The various technologies which I learned are-HTML, CSS, JAVASCRIPT and BOOTSTRAP for frontend web development and NODE and MYSQL for backend web development.

**PS-I is an exposure oriented course:** I agree with this statement because, we got an idea of how different organisations and the industries work by closely associating with them for over 45 days. We truly learn something when we are exposed to it and PS-I exposes us to industry for the first time through which we got organisational skills which can prove to be very fruitful to us when we step out in the corporate sector.

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**Name: Arpit Khandelwal (2017A4PS0596G)**

### **Student Write-up**

**Short Summary of work done:** Made an android application for the IRCS blood bank. The app provides the number of existing blood bank units to all the app users and also provides them with information regarding when they last donated blood. Apart from this, the app also allowed a blood seeker to fill a blood requisition form online.

**PS-I experience:** It was a good experience overall.

**Learning outcome:** Learned android application development, MySQL databases. Was not only a test of our technical skills, but also got us habituated to the corporate culture, helped us follow and stick to deadlines.

**PS-I is an exposure oriented course:** Fairly accurate. Having never worked in an office before, this was surely a welcoming experience.

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**Name: Tanmay Mathur (2017A7PS0925G)**

### **Student Write-up**

**Short Summary of work done:** We revamped the newsletter using queries and CSS.

**PS-I experience:** It was a good learning experience where we had to start from scratch about learning the relevant softwares.

**Learning outcome:** Web dev6.

**PS-I is an exposure oriented course:** We had a wonderful exposure to the work culture. The way the staff was so cooperative amongst each other and to us was amazing. And we learned a lot in the process.

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## **PS-I station: Jaguar Overseas Ltd. , New Delhi**

### **Student**

**Name: Abhishek Dubey (2017A3PS0483H)**

### **Student Write-up**

**Short Summary of work done:** I learn about electrical sub-station in detail then about mobile sub-station which was a completely new topic for me and problems faced during the execution of the project which is the electrical sub-station in Central African Republic (CAR) and how to solve it then i learn about instrument transformers in detail, how they work, functioning, principle and then finally about Gas Insulated Switchgear (GIS).

**PS-I experience:** The experience of PS-I was overall good. We got to interact with the employee there and got an exposure of how they apply the studied theory in practical.

**Learning outcome:** Got to know about very new topics, project related to them. Problems faced during the execution of the project and how to solve them.

**PS-I is an exposure oriented course:** yes

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## PS-I station: Knack Packaging Pvt Ltd, Mehsana

### Student

Name: Aman Jain (2017A3PS0416G)

### Student Write-up

**Short Summary of work done:** Our work here at knack packaging was to study its product and its processes and then we were allowed to learn about the marketing and management prospects of the company and were given the work to give some modifications into the basic structure. We also created an extension called web scrapper that helped the company in its working a lot and suggester the company some changes regarding their working methods.

**PS-I experience:** The work environment at PS-I station was quite helpful. The faculty here was immensely supportive and the regional managers that were allotted to us were also good. All in all, this my experience was good and I got to learn something from it.

**Learning outcome:** I learnt about how a packaging industry and its plant works. Also, I learnt about how the marketing bracket as well as management of any company works and helped the company and amending some of the things.

**PS-I is an exposure oriented course:** It is definately an exposure oriented course as this is the first exposure of any student directly to the industry and with the immense co operation of our college as well as the people here at the company. This becomes a delightful as well as a learning experience.

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## PS-I station: L.V. Prasad Eye Institute, Hyderabad

### Student

Name: Tangeda Sai Sharan (2017A7PS0241H)

### Student Write-up

**Short Summary of work done:** Used image processing techniques to find out tumor volume from MRI, CT scan 2D Slices. Also, created cloud based platform for storing and viewing files along with in-built dicom web viewer. Also created a cloud based audio digital library to download audio books for free for blind people all over the world.

**PS-I experience:** It was new, I learned how to talk and communicate with colleagues of different levels. I got a chance to talk and explain people about something I'm building. I also importantly learned how to co-ordinate with people of different sectors.

**Learning outcome:** I learned image processing, improved my skills in communicating with people and improved my web development skills as well.

**PS-I is an exposure oriented course:** I very much agree to it, initially based on previous feedback, I thought It would be a waste of time. But frankly I couldn't have learned these anywhere by going to classes. I thank BITS Pilani for giving me this wonderful opportunity.

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Name: S. G . Sai Vennela (2017A7PS0127H)

### Student Write-up

**Short Summary of work done:** Studying eye movements with eye trackers / eye hand coordination task and develop code for eye link 1000.

**PS-I experience:** Our mentors motivated us in utilising our time productively, so as we inculcate new skills in us and this is more of a chance to explore ourselves.

**Learning outcome:** Matlab.

**PS-I is an exposure oriented course:** This is absolutely true and this is how we learn a lot of things.

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**Name: Samhitha Koduganti (2017A5PS1168H)**

### **Student Write-up**

**Short Summary of work done:** My project was based on checking for mutations in Fuchs Endothelial Corneal Dystrophy (FECD) patient samples.

**PS-I experience:** I got to learn a few lab techniques- PCR, Gel Electrophoresis, Sequencing PCR and Ethanol precipitation.

**Learning outcome:** It was a good learning experience. I got good exposures to the research field. It was a much needed experience so that we could get to know about the real working environment.

**PS-I is an exposure oriented course:** Yes.

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**PS-I station: Law Pundits LLP, Trivandrum**

### **Student**

**Name: Swastik Mohanty (2017A8PS0282P)**

### **Student Write-up**

**Short Summary of work done:** We had to do a digital marketing for the firm, for the entire duration of 8 weeks we were to scrape the web manually collecting contacts

according to the job assigned to us. The contacts we collected varied from those of reputed lawyers to the marketing head of the law firms / companies. Certain contacts were very easy to find as they were from reputed companies but at times we had to look throughly to find the contact, so the speed varied from 10 contacts in a minute to 10 minutes for a contact (we didn't pursue the individual after that time as we had a lot of contacts to cover and not nearly enough time). So, for the entire duration of our PS-I, we worked hard and each day extensively searched the net to gain contacts and make a database.

**PS-I experience:** It started with an orientation. Law Pundits is an upcoming company so the office is not at par with the other successful companies but the work atmosphere was good. Our mentor was very lenient, understanding and took proper time for explaining to us regarding our jobs. We had one hour break everyday and could take a brief break if something urgent came up. Overall, this experience taught me a lot and gave me a good idea about what to do in the nearby future.

**Learning outcome:** There were no technical skills gained but we gained some valuable insights about digital marketing. Moreover, we learnt how to work well with others and meet deadlines.

**PS-I is an exposure oriented course:** Yes it is indeed, it gave me a sense of real world and the exact exposure I needed to help me to grow and improve upon my weak areas.

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**Name:** [Pranav Nair \(2017A8PS0607H\)](#)

## **Student Write-up**

**Short Summary of work done:** For the entire duration of the PS-I, we were given data filling in excel sheets and digital marketing works. My work included scouting out required contacts which fit in the mold of the specified classifications from Legal Tech Austria, American Law Firms, Legal500 Finland, Legal500 France, New York Stock Exchange, Johannesburg Stock Exchange, Nairobi Stock Exchange, Shenzhen Stock Exchange, Shanghai Stock Exchange, US Law Schools, and Legal500 USA.

**PS-I experience:** Although, the work was very repetitive and at time tedious, the work environment was great. The company employees were very helpful and friendly.



**Learning outcome:** Improved efficiency in microsoft excel sheet, better eye for digital marketing ideas and upgraded work ethics.

**PS-I is an exposure oriented course:** I personally would agree with the above statement. It gives an individual appropriate exposure about what corporate world is like and how would one have to tone themselves to be a significant part of that.

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**Name: Aditya Jyothilal (2017A1PS0848P)**

### **Student Write-up**

**Short Summary of work done:** Collection of data relevant to conducting an upcoming event of the law firm. The work mainly involved web scraping and excel sheets for the collection of contacts of legal professional around the world. I was able to pick up a few marketing strategies involved in hosting an international event.

**PS-I experience:** It was helpful in understanding how I should prepare myself for the future. It helped me to improve my work ethics and sincerity towards my goals .

**Learning outcome:** Marketing experience, better understanding and practice of microsoft excel.

**PS-I is an exposure oriented course:** As this was my first experience in a workplace environment, it was refreshing to understand the importance of effective communication with co-workers, the decorum and discipline to be maintained in an office.

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**PS-I station: Lenest, Mumbai**

## Student

Name: Tina Patil (2017B3AA0316G)

### Student Write-up

**Short Summary of work done:** The project I worked on was: NABH audit at Lé Nest. Quality Council of India (QCI) has setup National Accreditation Board (NAB) for hospitals and healthcare organisations. This body is responsible for auditing healthcare providers and certify them. My work for this project involved ensuring that the hospital met all the criteria that NABH mentions and is completely ready to file for an accreditation. For this, I first read up existing literature and found out parameters to gauge quality of an healthcare organisation - international as well as Indian parameters. I procured a list of requirements. This list consisted of several subdivisions from maintenance of all types of data to the equipment servicing. The primary goal here was to archive all the daily activities at Lé Nest. This project involved carefully monitoring how the nurses entered patient data and equipment calibration values. This project involved working with the administration and nursing staff at Lé Nest and I got their complete support. Finally, I fixed up an internal audit with a professional auditor and she mentioned various other improvements which we immediately incorporated into the system. Overall, this project required close inspection and researching the hospital data and it was a new domain of work for me which was a further great addition to this project.

**PS-I experience:** The experience was an eye opener and really introduced us to the work culture in corporates. The team at Lé Nest was very approachable and ready to help us in our projects.

**Learning outcome:** I learnt how to coordinate and to work together with a team. Also, I improved upon my communication, researching and coordination skills.

**PS-I is an exposure oriented course:** It is indeed an exposure oriented course as it shows us the real work world. So, in this way we are mentally prepared as to what is to be expected in our future endeavours and the kind of conduct we need to keep when working for an organisation.

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## Student Write-up

**Short Summary of work done:** I was involved in launching obstetric intensive care services in the existing healthcare setup. In the healthcare industry, the intensive care department is the most critical and deals with high stakes. To ensure the safety of a person's life, a lot of research and meticulous planning is required for the procedures to go smoothly. I was to create a new added service in the existing system with standardized methods comparable globally, to look at the feasibility and evaluate the infrastructural needs as well as implementation and execution of the project, to create a module with standard protocols to be followed by the staff and doctors for perpetual standardization of delivery of the service, to suggest workshops and emergency training drills to ensure preparedness and professionalism of the team at all times. My second project was to develop an application for the clinic. This app would aid in the daily administrative task of booking appointments, market and advertise the clinic's specialties and exclusive services, as well as provide the pregnant woman with health tips and facts and answers to FAQs. Thus, the app was developed with both the staff's and the patient's convenience in mind.

**PS-I experience:** It was an all round enriching and personality developing experience. Apart from the work which was interesting and challenging, we were given multiple avenues for knowledge acquisition and networking through interactions with industry experts who had been invited by Dr. Mukesh Gupta to talk to us. Even through observation of the skills possessed by a leader such as Dr. Mukesh Gupta we learnt valuable soft skills. My overall experience was a strongly positive one which could give me an idea of professional work.

**Learning outcome:** To understand how a professional work environment functions, learn what is needed to keep an organisation running, learn how to communicate and network, give powerful presentations, to choose and execute projects that create an impact.

Through the projects that I worked on, I got an experience of starting a new added service i.e. obstetric ICU from the ground up right from what is needed to begin to how to keep it operating at global standards and learnt how to develop an application for an organisation from scratch.

**PS-I is an exposure oriented course:** I completely agree with this statement because through the practice school component of our education we find ourselves working for organisations that give us an idea of the professional workplace and it also gives us a way to network with industry professionals and get our foot in the door which otherwise would be very difficult.

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**Name: Abhay Kanodia (2017A5PS1108P)**

### **Student Write-up**

**Short Summary of work done:** Supply Chain Management (SCM), process of procurement and auditing of existing systems to increase productivity of the organisation by optimizing purchase and tender processes.

**PS-I experience:** Fine.

**Learning outcome:** Learned about how health care supply chain functions.

- learned about the process of procurement of medicines.
- factors that should be considered important in terms of inventory management before planning an official audit.
- how are tenders and quotations placed, managed and followed during the whole process.

**PS-I is an exposure oriented course:** I agree with the statement.

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**Name: Chinmay Pathak (2017A8PS0983G)**

### **Student Write-up**

**Short Summary of work done:** I was responsible for developing a chatbot for the hospital website. The chatbot would be responsible for redirecting users to the hospital's youtube channel.

**PS-I experience:** The PS-I station was pretty good. Dr. Mukesh is really helpful and there is a lot to learn from him. The hospital is a large organization and I am happy that I was able to help the organization.

**Learning outcome:** I learnt machine learning, django, python and web development.

**PS-I is an exposure oriented course:** Yes, I agree with the following statement as I learnt python during this practice school.

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**Name:** Adarsh Umesh Marigeri (2017B4AA0234G)

### **Student Write-up**

**Short Summary of work done:** Queue Management System.

Made a user interface for information entry of different patients for token allotment; Integrated with a backend database to the doctors desk for calling of the next patient.

Android application development.

Made the payment system, along with the home page for the app.

Coordinated with other members for common activities.

**PS-I experience:** Very productive and excellent learning experience.

**Learning outcome:** Technical skills learnt are,

1. Python packages, Learning gspread for linking sheets with the patients entry, Json software.

2. Use of android studio, Cardview feature, Java for linking different accessories.

**PS-I is an exposure oriented course:** Yes, it gave me lot of exposure to real life problems and hence gained knowledge on how to tackle them.

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**Name:** Chainika Shah (2017B5AA0872G)

## Student Write-up

**Short Summary of work done:** I was assigned two projects based on my resume. This station being a healthcare organisation that specialises in mother and baby care (obstetrics and paediatrics). One of my project was to analyse the psychological changes that take place in women during the pregnancy phase of her life. This study focussed on the causes, how one can avoid them and questionnaires to keep a check on emotions along with the patients overall health. The second project was an application development for the hospital that will help in automising the appointment booking and payment system, thus making it hassle free. This app also has other features like doctor profiles, health tips and facts, FAQs that link the answers with similar YouTube videos.

**PS-I experience:** I had a decent experience at Le’Nest. We came here everyday and worked on our own projects. Apart from that, we had regular discussions and talks organised by the doctors. We had to give weekly updates to the doctor. The staff here is friendly and the work is not hectic.

**Learning outcome:** I mainly watched a lot of videos and worked on android studio. I learnt a lot on personality development and understanding how business works (through the various talks that were organised).

**PS-I is an exposure oriented course:** Yes, it does help you to explore your interests but that depends on the station you get.

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**PS-I station: Medanta, Sri Ganganagar**

## Student

**Name: Mani Agarwal (2017A5PS1185H)**

## Student Write-up

**Short Summary of work done:** Learnt the importance of scanning staff files and the work of a medical records department. Learnt how to issue birth and death certificates to the attendants.

**PS-I experience:** The mentors and the staff was very helpful. Got to make some new good friends. The healthy and friendly behavior of the staff inspired to work.

**Learning outcome:** Got to know how to communicate the persons from higher authority. And what is a corporate life and how is it.

**PS-I is an exposure oriented course:** Through PS-I course, I came to know what all departments does an organization has. The relationship among all the departments and their dependence upon each other gave me the idea how does a corporate life work.

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**Name:** [Shrishti Khicher \(2017B5TS1207P\)](#)

### **Student Write-up**

**Short Summary of work done:** Mainly worked in HR department. Got to learn about human resource as a department and its tremendous significance in any organization. Helped in the joining process and in taking interviews of candidates. Learned about management as a whole including managing resources and energy in the PS-I station. It was a bit hectic at times; however managing time through this has been a crucial learning. Overall, a good learning experience.

**PS-I experience:** Knowledgeable and an exposure to corporate life.

**Learning outcome:** Benefitted in managing time on a daily basis. Being involved in the day-to-day working of an organization, gave a taste of actual corporate life. All in all, it was a quality learning experience.

**PS-I is an exposure oriented course:** True.

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## PS-I station: Million Sparks Foundation, Noida

### Student

Name: Aashi Aggarwal (2017A3PS0574H)

#### Student Write-up

**Short Summary of work done:** Two Projects were allotted (to a group of 3)

1. Multi-label text classification: It was an ML-NLP project. Created an API using Flask (A Python Micro-framework) which classifies the comment as input by the user into one of the four categories viz. Positive, Negative, Query, Neutral. It was created for the comments of Chalklit app at Million Sparks Foundation.
2. AppContent - Created dataset for adaptive testing platform using Bloom's Taxonomy.

**PS-I experience:** I gained valuable experience. All in all, the atmosphere at the MSF office is simply uplifting and fun and I enjoyed working with such a great and impressive team.

**Learning outcome:** Office work culture, professional communications, teamwork and leadership. Through the projects, we learnt various technical skills - ML, NLP, Text mining, Flask.

**PS-I is an exposure oriented course:** An internship enables you to gain first-hand exposure of working in the real world. It also allows students to harness the skill, knowledge and theoretical practice learnt. Not only that, you also develop other qualities required in the professional world.

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Name: Himank Methi (2017A3PS0274P)

#### Student Write-up

**Short Summary of work done:** Created an API using Flask (A Python Micro-framework) which classifies the comment as input by the user into one of the four categories viz. Positive, Negative, Query, Neutral. It was created for the comments of



Chalklit app at Million Sparks Foundation. Also developed question banks for the assessment of students of class 6th to 10th using Bloom's Taxonomy.

**PS-I experience:** I had a great experience at Million Sparks. Staff was friendly and supportive.

**Learning outcome:** Technical skills-Text mining, Natural language processing, Machine learning, Bloom's taxonomy.  
Soft skills- Team work, Problem solving skills, Work ethics.

**PS-I is an exposure oriented course:** I agree.

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**Name:** Harsh Garg (2017B3A80544P)

### **Student Write-up**

**Short Summary of work done:** Created an API using Flask (A Python Micro-framework) which classifies the comment as input by the user into one of the four categories viz. Positive, Negative, Query, Neutral. It was created for the comments of Chalklit app at Million Sparks Foundation. Also, developed question banks for the assessment of students of class 6th to 10th using Bloom's Taxonomy.

**PS-I experience:** I had a great experience at Million Sparks. Staff was friendly and supportive.

**Learning outcome:** Technical skills-Text mining, Natural language processing, Machine learning, Bloom's taxonomy.  
Soft skills- Team work, Problem solving skills, Work ethics.

**PS-I is an exposure oriented course:** Yes, this PS-I provided me an exposure to the organizational and corporate culture.

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Name: Harsh Bhimrajka (2017A7PS0046G)

### Student Write-up

**Short Summary of work done:** A major part of my work included designing social media posters and posts for the organization. Being an NGO, the organization's need was to increase its social media presence by regular posts mostly comprising of international days, trivial questions, facts and current affairs. Later on, I was handed over the responsibility of using social media analytics to better the content and thereby enhance the organization's stature which would help them attract fruitful funding from large and reputed companies.

**PS-I experience:** It was good. I had a real-life experience of how the corporate world works.

**Learning outcome:** The major takeaway from this project will be the enormous knowledge I gained related to matters of social media handles of large and reputed NGOs.

Basics of photoshop and google analytics helped me to gain knowledge of the public domain.

**PS-I is an exposure oriented course:** I agree.

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Name: Sanyukta Jain (2017B2A70145G)

### Student Write-up

**Short Summary of work done:** Created an API using Flask (A Python Micro-framework) which classifies the comment as input by the user into one of the four categories viz. Positive, Negative, Query, Neutral. It was created for the comments of Chalklit app at Million Sparks Foundation. Also, developed posts on the sustainable development goals of the UNDP, to be released on their app's wall.

**PS-I experience:** It was good exposure into the culture of start-up company. The staff was nice and supportive.

**Learning outcome:** I learned python, different libraries of python (nltk and regex), process to make a working API and what sustainable development goals are and the need for them to be included in the curriculum.

**PS-I is an exposure oriented course:** Yes, it provided me insight into the working of a startup NGO.

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## **PS-I station: Orchid Bio Medical Systems, Goa**

### **Student**

**Name: Sneha Das (2017A5PS1191H)**

### **Student Write-up**

**Short Summary of work done:** Our main focus was to find out the different diagnostic techniques for the diagnosis of several diseases such as malaria. We focused on the developing technique that is, the rapid membrane technique, its advantages and limitations and the working principle.

**PS-I experience:** Our PS-I was mostly a see and learn process. The interactions with the company employees helped us understand better and gain depth about the topic. Overall, the experience was an interesting one which helped us to apply some of the principles already learnt before.

**Learning outcome:** It helped us to understand how a company actually works. The different instruments used and the different principles upon which diagnosis of a disease can be done was understood. Also, the importance of quality control and quality assurance was also understood.

**PS-I is an exposure oriented course:** Yes, PS-I is an exposure oriented course. It makes us understand how exactly a company functions, what are the basic requirements and how important every step in a manufacturing process is.

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## **PS-I station: Pharmalab India Pvt. Ltd. , Ahmedabad**

### **Student**

**Name: Prakhar Sinha (2017A4PS0478H)**

### **Student Write-up**

**Short Summary of work done:** I did a project on 'occupational hazard and safety measures for employees at Pharmalab India' along with one other friend of mine. We learnt about the rules and regulations which should be followed by any company/factory and checked ourselves if they were being followed at the station. We conducted a survey among the employees and workers regarding the existing health and safety measures at the company. We performed mathematical analyses on the data collected. We also held a presentation for them to teach about the health and safety practices they should adopt in the future.

**PS-I experience:** It was an interesting learning experience. We got a firsthand experience of how companies function in the industry. We came to know the pros and cons of the corporate life, how companies and employees make their decisions, how a company works like a well oiled machine. The project also helped us to develop our interpersonal and intrapersonal skills. It helped me to make new friends and acquaintances and consequently increase my network.

**Learning outcome:** We learnt about the pros and cons of the corporate life, how companies and employees make their decisions, how a company works like a well oiled machine. During the project, we learnt about the various rules and regulations which should be followed by the companies. We learnt about the attitude of the workers and employees towards the management vis-a-vis the health and safety measures and regulations at the company. We learnt about the various mathematical methods to use for analysis of data and which method should be used for which kind of data.

**PS-I is an exposure oriented course:** I agree with this statement. PS-I provides the students with an amazing opportunity to experience the working and functioning of the companies in the industries firsthand. It's an entirely exposure oriented course.

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**Name: Shreyas Shashank Patil (2017A7PS1568H)**

### **Student Write-up**

**Short Summary of work done:** 1. Overview (company, depts, products)  
2. Lectures - Automation (hardware, software)  
3. Project - Created an integrated dashboard-based web portal for Pharmalab

**PS-I experience:** Good.  
Got an in-depth knowledge of how a company works.

**Learning outcome:** Industry exposure, Industry based knowledge (Healthcare, Automation) and Field based knowledge (CS).

**PS-I is an exposure oriented course:** True. Got a working knowledge of how an industry functions, apart from specific subject based learning.

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**PS-I station: Qualpro Diagnostics, Goa**

### **Student**

**Name: Shivani Soni (2017B1TS1223P)**

### **Student Write-up**

**Short Summary of work done:** During the PS-I, how the manufacturing takes place for different product like ELISA, rapid test kit for diagnosis of disease was explored and the theory behind the concept used in the manufacturing was also studied.

**PS-I experience:** PS-I experience was a learning one, in which many things were explored.

**Learning outcome:** How the kit manufacturing takes place and what is the principle behind that.

**PS-I is an exposure oriented course:** Yes, it is. It provided me a good opportunity to explore things.

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**Name:** Mahima Sharma (2017A5PS1117P)

### **Student Write-up**

**Short Summary of work done:** Learnt the manufacturing, working and packing of the test kits manufactured by Qualpro Diagnostics. Learnt about rapid detection technique and ELISA technique in detection of HCV, HIV.

**PS-I experience:** Great learning experience.

**Learning outcome:** How industry works.

**PS-I is an exposure oriented course:** True.

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**Name:** Isha Kailas Joshi (2017A5PS1089P)

## Student Write-up

**Short Summary of work done:** We were not assigned any tasks to do in the PS-I station. However, we were toured through various departments of the company and explained how they manufacture number of diagnostic kits per unit time. Also, we were given a few demonstrations of how some instruments and processes worked. In our company, Qualpro Diagnostics, we were shown the production line of the manufacture of ELISA based diagnostic kits and the related Quality Control departments. Whereas, in their sister companies, Zephyr Biomedicals, Orchid Biomedical Systems and Tulip Diagnostics, we were shown how they manufacture RDT (Rapid Diagnostic Test) based kits for various diseases. Besides the demonstrations at the PS-I station, we were evaluated regularly and hence had to be prepared with the theoretical knowledge behind the processes.

**PS-I experience:** My experience at PS-I can be summarized as being good overall. Along with the practical knowledge gained at the PS-I station and the theoretical knowledge gained by reading from various websites, my other skills, like presentation skills, public speaking ability, etc. has been improved.

**Learning outcome:** I learned how ELISA based HIV detection kits are manufactured in detail, as well as the principle of Enzyme-Linked Immunosorbent Assay (ELISA) and its application in biomedical field. I also got to learn briefly how RDTs are designed and their production process. Additionally, I got an overview of how a company operates.

**PS-I is an exposure oriented course:** Yes, through PS-I, one can get primary exposure of the operation of a company related to their branch. Despite not being too detailed, it can be a good experience for a student who looks forward to have a career in the industrial sector.

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**Name: Pratik Kakade (2017A5PS1189H)**

## Student Write-up

**Short Summary of work done:** Our work was mostly related to observing various aspects of preparation of diagnostic kits for HIV. Understanding the working of rapid diagnostic test in the detection of HIV. We also learned about the Quality Control and Quality Assurance aspect of the same.

**PS-I experience:** The PS-I experience was great. Came to know about various aspects for production of diagnostic kits. There were several instances where we could apply what we had learned in our lectures.

**Learning outcome:** We had direct application of what we had learned earlier like antigen-antibody aspect. It had also helped us to understand how a pharmaceutical industry works and the working of the diagnostic kit.

**PS-I is an exposure oriented course:** Yes PS-I is an exposure oriented course. The more you are involved in the same the more you learn from it.

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## **PS-I station: RA Chem Pharma, Hyderabad**

### **Student**

**Name: Vedita Belsare (2017A5PS1102P)**

### **Student Write-up**

#### **Short Summary of work done:**

- 1) Knowing what are the various departments in a Pharmaceutical plant. Visiting them and understanding the work nature of each and every department like Quality Control, Production, Warehouse etc. and also how these are arranged in a hierarchy of manufacturing process of solid dosage forms.
- 2) Understanding the principles and working of various machines and equipments in the departments. For example, HPLC, Gas Chromatography, Blenders, Capsule Filling Machines etc.
- 3) Knowing the causes of appearance of black particles in tablets by investigating various steps in its manufacture in the production department.
- 4) Understanding the meaning of OOS (Out of Specifications) formulations and the role of placebo in the same by going through various SOPs and OOS log books of the company.



**PS-I experience:** It was a great experience to work with RA Chem Pharma as it gave me a good exposure to the process of manufacturing of solid dosage forms along with two other projects on black particles and role of placebo in OOS.

**Learning outcome:** 1) Visited various departments of the pharmaceutical plant and getting an insight of the manufacturing process of solid dosage forms (capsules and tablets).

2) Investigating the causes of appearance of black particles in tablets.

3) Understanding the role of placebo in OOS (Out of Specifications) formulations.

**PS-I is an exposure oriented course:** Yes, it is an exposure oriented course which gives us an insight of the working of an industry for a great span of time and also makes us research on certain good number of topics which enlightens us.

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**PS-I station: Samhita Social Ventures, Mumbai**

**Student**

**Name: Vedika Rathi (2017B5A30826P)**

**Student Write-up**

**Short Summary of work done:** Under Companies Act 2013, companies that fall under the specified criteria are required to perform CSR activities of the amount that is 2% of their profits averaged over last 3 FYs. However, corporates find it difficult to search for local NGOs that would best fit the kind of activities they would want to perform and NGOs find it difficult to collect funds for their activities. Samhita is a CSR consultant that connects corporates on one hand and NGOs on the other, thus facilitating the process and making sure the money is properly invested. Samhita works in different sectors like WASH, women empowerment, skilling, etc. Flagship programs include Swacch Maharashtra Grand Challenge, 1000 days, 13 to 30, etc. Under the WASH space, to look for companies which might be interested for investing in it and contacting them for the same. To look for innovators across the country that have great solutions for investment in school sanitation, sanitation workers, faecal sludge management and toilet usage, so as to include them in our grant fund challenge and give implementation assistance in Chandrapur with the help of local network of NGOs. I was primarily working with the WASH team.

**PS-I experience:** The work and exposure that one can get is great. The work is mostly non-tech based. People working here came from various backgrounds and talking to them was a great experience for me. Though the firm had not much different work for me, it was somehow monotonous in the beginning but later on when asked for work I got a variety of it.

**Learning outcome:** Understanding the CSR space, the needs and concerns of the corporates, how complex the process of solving a social problem is, the need of innovations to address the needs of the society, even if innovations are present how to make them reach the society at large, how to draft your emails for conversations with different heirarchy levels, understanding how calls between different us and different corporates are done.

**PS-I is an exposure oriented course:** The exposure at Samhita is great. I got exposed to the social problems in our country along with corporate world that can help to solve them with its CSR expenditure and innovations alongside, and how innovators can help ease out the process and lead to great outcomes eventually.

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**Name:** [Shubham Jain \(2017A1PS1357H\)](#)

## **Student Write-up**

**Short Summary of work done:** Making pitch proposals for various clients, Identifying key stakeholders, Developing a central repository for all the documents.

**PS-I experience:** It was a wonderful experience, I got to work with alumni of London School of Economics, Yale, Ashoka University, Johns Hopkins University and learnt a great deal from them. I would have never joined a social sector company if not for PS-I and I must say I thoroughly enjoyed my time working at Samhita. The culture here is absolutely amazing, people love coming to work here and the work life balance is perfect. I worked on a few strategy consulting cases and made pitches for top Indian pharma and media firms and even the United Nations.

I was a part of the Water, Sanitation and Hygiene (WASH) department while also juggled a few projects from the research and knowledge department. We were working on a project that would directly impact the lives of over 22 lakh Indians. Working on such projects really widens your horizons.

Mumbai is a nice city to work in, especially the amount of food choices here never end. Overall it was a wonderful experience.

**Learning outcome:** I learnt how to find value addition as a company and as an individual, I also learnt how important it is to measure impact in whatever you do. I got to know about India's problem at a much deeper level while also realising how firms like Samhita are aiding NGOs in efficiently doing ground level work.

**PS-I is an exposure oriented course:** It definitely is!

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**Name:** Madhav Rathi (2017B3AA0811H)

### **Student Write-up**

**Short Summary of work done:** As a part of the implementation team at Samhita, i managed the CSR project for one of their clients. The work involved some research in the nascent stage of the project after which I had to contact potential partners that we could work with on the project. The project involved funding skill development programs in rural areas to provide employment opportunities and livelihood to eco backward people.

**PS-I experience:** Great environment. Very professional.

**Learning outcome:** Knowledge about the CSR space in India and project management.

**PS-I is an exposure oriented course:** The course is totally practical. I gained a lot of industry exposure and lerned how the corporate world works.

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**Name:** Srishti Gupta (2017A3PS0293P)

### **Student Write-up**

**Short Summary of work done:** As an intern, my day to day responsibilities were to assist my organization mentor in her functioning as the Implementation Manager, like giving her inputs and insights from case studies, finding on-board partners for ongoing projects, potential international, corporate and Govt. body funders for upcoming projects, updating budget sheets, preparing presentations to be delivered to the clients and partners. I also got the opportunity to work / take up projects under different departments namely- Strategic Initiatives, Strategy and Partnerships. My job here was to perform research and provide summary / analysis and reports, suggesting intelligent ways to go about the prospective projects at Samhita and new approaches that need hand holding, like introducing the culture of philanthropic giving and bringing high worth donors on board with us and creating databases and resources to be used by the team.

**PS-I experience:** My working experience at Samhita, as my PS-I station was extremely helpful to me in developing the professional side of my personality, enhancing my communication and inter-personal skills, besides giving me exposure to the working and operation of a well-going organization like Samhita. It was a great experience overall.

**Learning outcome:** I got a chance to learn about the working and operation of Samhita as an organization, different positions of responsibility and associated roles, professional way of dealing with day to day challenges at work, communication and group discussion skills through various projects and acquired new technical skills like Python, Prezi, Microsoft office, etc.

**PS-I is an exposure oriented course:** Surely, PS-I is an exposure oriented course, and I think I'm better equipped for the placement season with the experience I have through this course.

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**PS-I station: Tamil Nadu Science and Technology Centre, Chennai**

**Student**

**Name: R. Surya prathap reddy (2017AAPS0447H)**

**Student Write-up**

**Short Summary of work done:** We built an obstacle avoiding robot that will move in random direction. It can also respond to commands given through android phone by using bluetooth module.

**PS-I experience:** It's a great experience.

**Learning outcome:** Arduino ,basic 3d modelling.

**PS-I is an exposure oriented course:** Yes.

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**Name:** Nishanth Sanjeev (2017A7PS0970G)

### **Student Write-up**

**Short Summary of work done:** Built a navigation robot, that acts as a tour guide for the museum section of the center. Implemented obstacle avoidance, as well as path definition by reading RFID tags.

**PS-I experience:** Was a learning experience that I took a lot from.

**Learning outcome:** Learnt how to code a Raspberry Pi module in Python, and how to implement and interface peripheral modules.

**PS-I is an exposure oriented course:** Definitely is true. Designing and implementing my project, it was difficult to learn the softwares, etc required. But the constant challenges proved fruitful in the end and we got a lot of exposure.

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**Name:** Asrita Venkata Mandalam (2017A7PS1179P)

## Student Write-up

**Short Summary of work done:** App development and Augmented reality.

**PS-I experience:** It was a good environment. They let us choose a project relevant to our branch that would help the PS-I station as well. They provided all of the resources that we required and regularly followed up on our work.

**Learning outcome:** I've learnt how to use Augmented reality software to develop any sort of application that requires it.

**PS-I is an exposure oriented course:** I agree with this statement as my PS-I centre helped me learn and apply concepts from a field that I chose. It gave me a work oriented environment to work on my project.

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**Name:** [Srujana N \(2017A7PS0013P\)](#)

## Student Write-up

**Short Summary of work done:** Created an iOS mobile application along with Augmented reality features. The mobile application was created to provide information and guide the visitors who came to TNSTC. An app for both iOS and android devices was created. AR maps was the category that was explored in Augmented reality. Softwares used during the process: Xcode, Sketch, Protopie, AdobeXD, Unity, Vuforia, Android studio, Flutter. This project helped to explore the UI/UX field, new programming languages such as Swift and Kotlin, numerous possibilities of using Augmented reality.

**PS-I experience:** Provided exposure to working environment and performing group projects.

**Learning outcome:** 1. iOS app development  
2. Augmented reality (AR Maps)

**PS-I is an exposure oriented course:** Yes.

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**Name: Varshith Annabathina (2017A8PS1680H)**

### **Student Write-up**

**Short Summary of work done:** We have done on obstacle avoiding voice controlled Robot. We first worked on obstacle avoiding we brought the required material and attached the ultrasonic sensors and for the movement we fixed servo motors and the servo motors will be moving the head part and the hand part. We used 2 sensors for detecting the obstacle that is in front of the robot another one is for detecting the depth of steps come the distance increases and it stops. After that, we moved to voice controlled part we controlled it by phone bluetooth module is the main that is used for intermediating in between the human voice and the Robo we can control through phone. If we say move right on phone it moves right similarly left and viceversa and if we say Hi or Hello. It will raise its hand.

**PS-I experience:** it's a good experience to work here had learned something that is useful for core.

**Learning outcome:** Knowledge gained here will be usefull in future for core side.

**PS-I is an exposure oriented course:** Haa truly.

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**Name: Sheryala Sai Dharma Srinidhi (2017AAPS0357H)**

### **Student Write-up**

**Short Summary of work done:** An obstacle avoiding autonomous robot with speech recognition.

**PS-I experience:** Very nice.

**Learning outcome:** Got some experience on how the corporate work will be.

**PS-I is an exposure oriented course:** Yes .

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**Name:** Kumpatla Jnana Veera Venkata Sairam Satish (2017AAPS0284H)

### **Student Write-up**

**Short Summary of work done:** Obstacle avoiding robot with voice controlling using arduino.

**PS-I experience:** Good to have working experience at science center.

**Learning outcome:** Arduino IDE, Proteus softwares.

**PS-I is an exposure oriented course:** Yes , I agree.

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**PS-I station:** TV Today Network Ltd. , Noida

### **Student**

**Name:** Abhyudaya Prakash Rai (2017B4AA0816H)

### **Student Write-up**

**Short Summary of work done:** The purpose of this internship was to get an exposure to corporate world. It is important for TV today to keep up with the competitors in the cut-throat competition in entertainment where giants like NDTV and ABP play. Hence,



all the operations of the company should be fast, accurate and efficient. The process of keeping a track of company's performance by calculating various scores on daily data, updating the master files with daily data and making ppts from this data offers was automated as a part of this project. Automation is an important aspect especially in an news organisation where performance and efficiency are so crucial. This was done using various supporting libraries of python.

**PS-I experience:** Very fun.

**Learning outcome:** Academically, basics python particularly openpyxl, pandas, pptx, numpy, matplotlib libraries. Through PS-I, I have had many more real life teaching.

**PS-I is an exposure oriented course:** I would agree with this statement as this PS-I has been a learning experience for me on corporate culture, work-life balance and much more.

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**Name:** Utkarsh Tewari (2017B2A30671G)

### **Student Write-up**

**Short Summary of work done:** Automation of the excel files using Python and making a simple Graphical User Interface (GUI) for the same.

**PS-I experience:** It was a nice experience working at TV Today Network.

**Learning outcome:** Learnt various python libraries.

**PS-I is an exposure oriented course:** I fully agree with the above statement.

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Name: Ashwani Singh (2017A7PS0932G)

### Student Write-up

**Short Summary of work done:** The purpose of this internship was to get an exposure to the corporate world. It is important for TV TODAY NETWORK to keep up with the competitors in the cut-throat competition in media and broadcasting world where giants like NEWS18 and REPUBLIC TV which are leaving no stones unturned to gain market share.

Hence all the operations of the company should be fast, accurate and efficient. The process of keeping the track of Target rating point (TRP) and parameters such as impression and the Average Time Spent (ATS) is important to get an idea as to how people of different region having different age group perceive the content shown by the company and how can they improve even further to attract more user base. All of these processes are time-consuming and since done by humans is prone to error.

Automation is an important aspect especially in a media and broadcasting organisation where performance and efficiency are so crucial. Python – a high level scripting language was used for automating the daily work.

**PS-I experience:** Awesome.

**Learning outcome:** Learnt the practical application of Python and MYSQL.

**PS-I is an exposure oriented course:** Yes it is !

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**PS-I station: Zephyr Biomedical, Goa**

### Student

Name: Shubhendu Kumar Tripathi (2017B1A10433P)

### Student Write-up

**Short Summary of work done:** My main aim of the project was about to study intricacies about principle and usage of Gold conjugates in Malarial RDT kit.

I also learnt about various departments involved in the manufacturing of RDT kit such as - quality control, manufacturing, assembling, packaging, etc.

**PS-I experience:** Briefly I can say that PS-I can really prove to be very helpful for overall personality development of a student. And I think so, it very well did in my case.

**Learning outcome:** Apart from some technical skills, I learnt many soft skills such as good communication skills, acting as a team player, work ethics, etc.

**PS-I is an exposure oriented course:** I strongly agree with the statement. It not only gives a student an industry exposure but gives him/her a real world exposure.

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**Name:** [Snehashish Choudhary \(2017B1A20412P\)](#)

### **Student Write-up**

**Short Summary of work done:** In our PS-I station, we were shown the different departments of our station like packaging, manufacturing, production, etc. We were also demonstrated how different test kits are prepared and manufactured. We also saw how the process occurs there and how different people do their work with so much of concentration. We were also taught about the Gold conjugate synthesis which was our project topic. We did different test kits testing there. Then, we examined what if we use some other metal instead of Gold. Basically, this was all the work done in the PS-I station.

**PS-I experience:** It was very nice experience as we learnt how a biomedical firm works and how the process of manufacturing and production occur in that company.

**Learning outcome:** We learnt about the Rapid Diagnostic Test (RDTs) Kits, how it is manufactured. We also learnt about the properties of Gold colloid.

**PS-I is an exposure oriented course:** This statement holds correct since we got the exposure of a biomedical firm, how things happen in that company.

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**Name: Amisha Saxena (2017A5PS1105P)**

### **Student Write-up**

**Short Summary of work done:** Zephyr Biomedicals was a company that manufactures RTD i. e Rapid test devices. These devices are used for rapid detection of pathogenic diseases like malaria, dengue, syphilis etc. Also, nowadays RDTs are used in the area of rapid testing for pregnancy. We as interns got a chance to look around their labs, study their SOPs and visit their manufacturing production and packaging departments. We took a close look at these processes and understood their functioning and principles.

**PS-I experience:** PS-I is surely a thrilling experience where you get exposed to conditions similar to job and thus get to learn many things related to both experience and knowledge.

**Learning outcome:** Before coming here, I knew nothing about RDTs and always wondered how they gave such a rapid detection. After coming here I got to look closely at all their machines and processes. I understood everything about their principles. Also, I got an exposure to the company settings and work ethics.

**PS-I is an exposure oriented course:** I totally agree with this. As I said in the above sections, it gives a good exposure to company and factory conditions and feels like a practice done for the working life ahead.

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**Name: Gauri Chaturvedi (2017A5PS1079P)**

### **Student Write-up**

**Short Summary of work done:** Our work was related to the manufacturing, packaging and quality control aspects of Rapid Diagnostic Test (RDT) kits. Our company manufactures RDTs for rapid and accurate diagnosis of diseases like malaria, syphilis, typhoid, prostate cancer etc. We were exposed to different departments like quality

control, production, manufacturing and packaging. These are the departments which are present in all RDT making companies all over the world. The main focus of our work was related to immunochemistry as this is the basis of working of all RDTs. The manufacturing department covers the process of making immunochromatographic strips and its components like release pad, gold conjugate pad, NC membrane and absorbent pad. The production department was concerned with the preparation of colloidal gold conjugate solution containing coated antibodies or antigens. The quality control department was involved in checking the quality acceptance and working of all these components discussed above and was done in 3 stages. At last, the packaging department assembles all these components together along with the buffer solution, dropper and silica gels (desiccant) in a proper kit containing 25 devices. The products on which we focussed were parascreen, enteroscreen, syphicheck, paramax-3 and denguecheck. These products use both antigen and antibody based detection tests where a complex of antibodies / antigens and colloidal gold is made and this helps in giving the test results on the immunochromatographic strips. The research and development department of the company is concerned with finding which antigens or antibodies are present in the blood during which disease and how that can be detected by these RDTs.

**PS-I experience:** The PS-I experience was very good as I got to know about various safety practices which are present in the professional research labs. Our company allowed us to explore all departmental work and observe how the work is done in professional setting. Our instructor was very helpful and was always ready to guide us and the people in the company also explained us each and every thing in detail and their importance.

**Learning outcome:** I learnt how to work in a group in a coordinated manner. At our company, I learnt how the work is done in a systematic manner by all employees and what is the process of research work in these big companies. I also learnt about modern equipments and instruments which are used in professional labs and for what purpose they are used. Further, I learnt about different departments and their work in an extensive manner.

**PS-I is an exposure oriented course:** Yes it is an exposure oriented project as you can learn about how to give a professional presentations and how to write a good report.

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