DISCOVERY WEEK AT CERN

On the 15th of June, a group of nine boys escorted by Dr Ashish Dean left for Geneva, Switzerland to experience life in one of the finest institutions in the world in its field - European Organisation for Nuclear Research (CERN). It was a most exciting prospect as School had organized a program of such magnitude for the first time, and it was supported by the fact that all of us had an interest in the field of work explored at CERN.

The five-day internship program kicked off at 0800 hours on the 16th of June, with us meeting some of the topmost authorities at CERN. The highlight was meeting the Director General, Dr Rolf Dieter Heuer himself. The ‘showcases of CERN’, the Microcosm and the Globe provided us a preview of what we might be staring at for the next five days. It, befittingly, related to the modern day applications and we were drawn into the origin and the thoughts that revolved around such discoveries. The day was organized in a way to expose us to what CERN’s aim is: exploring Fundamental questions such as ‘where do we come from?’ and ‘what are we made of?’ These gave the internship the intellectual gravitas that it deserved. After visiting the computing centre we learnt that India has two centers on the CERN radar and we were happy to know that so many countries had pooled in resources to further the cause of science through CERN.

The lecture on ‘applications’ showed us how certain useful instruments such as the MRI machines and Proton Radiation Therapy for Cancer were actually products of CERN’s experiments and furthered by the CERN application center! The second day began with forays into the relatively unknown realm of Anti-Matter and Dark Matter and CERN’s aim to find clues to these mysteries after the reopening of the Large Hadron Collider (LHC) in early 2015. The speaker’s promise to tell us everything that he had learnt in 30 years in a condensed form truly began to clear some of the pressing questions in our minds. We were exposed to simple experiments such as the Moon Shadow experiment and Parabolic Motion of matter and anti-matter lead us to answers relating to the properties of these relatively ‘tough to explore’ particles. The LINAC/LEIR and the crystal lab showed us the big windows of opportunity that exist for different professions in CERN. Hence the involvement of engineers, technicians and computing experts who formed the majority of the CERN complex were brought to light. It brought us back to the complications and challenges encountered in the study of something so minute. It also sets the stage for a future where there will have to be developments as mentioned by our speaker earlier.

On the third day, we had informative sessions and explored the process involved in building the Resistive Plate Chambers (RPCs) with students from the Birla Institute of Technology and Science (BITS) who had been a part of the Summer Internship Programme. The ‘Masterclass’ at the end of the day was aimed at data processing exercises with data collected by the Compact Muon Solenoid (CMS) detector of the Large Hadron Collider. It was the most convoluted, yet exciting and fun event with the group achieving great results which corresponded to the findings at CERN Control Centre. Some in the group even came across data related to the Higgs Boson! This was an extremely helpful part of the roster and it told us what processing and condensation of data means (contd. on Page 4)
Well Done! match 3-0. against Selaqui International School and
The School Soccer Team played a friendly match
Gold Award
The following boys have completed the various levels
won an individual
medal in the team event while Laxman Santhanam
Rastogi and Krish Aggarwal. They secured a
by Kabir Kochar, Lakshman Santhanam, Dhairya
Ashish Pande, Vansh Aggarwal, Jhehan Javeri, Atreya
Arora and Akarsh Tibrewal won a
medal in the team event and Saket Golyan won a bronze medal
Arush Sood, Savar Khanna, Saket Golyan, Ayushman
Shreyansh Chedda
Best Position Paper
Karan Sethy
Best Delegate
DSW
Development Manager and FCS Software Solutions as
disparities in the world, which led me to work in the
Sir Ratan Tata Trust and the Uttarakhand State AIDS
program on voluntary blood donation (a joint initiative of
Teach as a Teaching Assistant in Australia and later in India
profession?
DSW
Mr Pratyush Vaishnav (PTV)
who recently joined the School as a History teacher
PTV
The Doon School Weekly (DSW)
Vaishnav
The short period during which I had the chance to
return to School as a teacher. However, any Doscos would
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Congratulations!

Blazer.

three levels and have also been awarded the

Gold Award

Devang Mehra and Arunabh Utkarsh

Chaddha

Bronze Award

won an individual

medal in the team event while Laxman Santhanam

Rastogi and Krish Aggarwal. They secured a

by Kabir Kochar, Lakshman Santhanam, Dhairya

In the Under-14 category the School was represented

in the individual

the team event and Saket Golyan won a bronze medal

The School Badminton team took part in the

International Award for Young People

BADMINTON: Sabharsh Singh Sidhu, Sabir Singh,

*: Madhav Bhardwaj and Arpit

Soccer

bronze

2.

The Doon School Weekly (DSW): Could you tell us a little about your background?

Mr Pratyush Vaishnav (PTV): I was born and brought up in The Doon School. Both my parents worked in School, my father taught Mathematics for 30 years and held various positions such as the Dean of Studies, Dean of Activities and Dean of Admissions. My mother taught extra Hindi for 7 years before she took up the job of the Matron of Jaipur House. After graduating from The Doon School, I completed a Bachelors degree with Honours in History from St. Stephen's College, Delhi, and then went on to do my Post Graduate studies in Australia. Subsequent to graduating I stayed on to work in Australia for a year as a Teaching Assistant at Australian School of Business Administration Technology and Research. Living in Australia changed my perception about a lot of things. I realized two things: the incredible opportunities I have been blessed with – through nothing more than an accident of my birth – and the fundamental disparities in the world, which led me to work in the Development Sector. I headed the Sir Ratan Tata Trust project on Social Marketing of Voluntary Blood Donation with the IMA Blood Bank of Uttarakhand. I later did small stints with IAYP India as Training and Development Manager and FCS Software Solutions as Training and Business Head. Most recently I worked as a Consultant NGO and Small Scale Start-ups.

DSW: Why did you decide to enter your current profession?

PTV: The short period during which I had the chance to teach as a Teaching Assistant in Australia and later in India while conceptualizing and launching the school education program on voluntary blood donation (a joint initiative of Sir Ratan Tata Trust and the Uttarakhand State AIDS Control Society), I felt myself drawn towards the field of education. I believe that teaching is an incredible profession - each day you have the opportunity to enthuse students with the content you teach, support them in their personal growth, and celebrate their successes and challenges. The job isn’t easy, but having students share the impact you made on their lives is a gratifying and humbling experience.

DSW: Other than teaching, what other activities do you plan to get involved in at Doon?

PTV: I am a keen sportsman and can play most sports offered in School. I have played Cricket professionally and would like to work with the School Cricket team. I would like to be involved with the School community service program since I have extensive experience of working in the development sector. I am also an avid mountaineer and have done most treks in the minor Himalayas and would like to be part of various treks organized by School.

DSW: How has the School changed from the time that you were a student here? What are the differences that you can see?

PTV: Although I have spent only a week in School, I have already seen some major changes since my time as a student here. The infrastructure and facilities have improved significantly and are at par with top schools abroad. The School has a more global outlook and students have greater exposure to the outside world. I also feel that our curriculum has improved considerably. On a lighter note, the quality and quantity of food served in the CDH has improved tremendously.

DSW: How have you been received by the Doscos?

PTV: It’s been like a second homecoming for me and I have enjoyed every bit of my interaction with Doscos so far.

DSW: Did you ever think that you would return to School as a teacher?

PTV: To tell you quite frankly, I never thought I would return to School as a teacher. However, any Dosco would find it very hard to resist the call of his old school.

***

Yuvan Kumar

Ties are aligned perfectly to the centre, shirt collars evened out smoothly and with the hair gel doing its job, one can truly say: the ball has been set to roll on the highest possible note this term. Boys can be seen ‘half-suited up’ for the camera in all picturesque locations on campus, being filmed for various updates that are to be screened over this weekend. Everyone’s best smiles have been practiced endlessly, to the extent that the even the birds and trees of Chandbagh are charmed! DSMUN this year is set to start on Independence Day, a greatly significant day for our nation and the school community. While for one it marks a day of freedom, courage and self-dependence, for the other, it marks the freedom from the rigmarole of school’s routine. Added to the “MUNing” weekend is the festival of Janmastami, which falls on Monday, giving the boys and staff of school a luxurious four day hiatus. We do hope that this break bears fruit for all those involved in the MUN and those not. May Cupid be with you!

In other news, football has been quite a wash out in the past week; the heavens being more than generous for hours on end. However, sports like swimming and table tennis seem to remain unaffected and in full swing. The table tennis team recently had Internationally-ranked player Mr Zubin Kumar in the School to give them some insight into a better game. We believe that this will largely benefit our budding players. There is not much to say about boys found missing in action from sports this week, except that fourteen committees definitely need to be set up in advance! The last week has witnessed some sport, some dance and some yad-vivad! The Inter-House Hindi Debating Competition is well underway and fiercely being contested by all. A group of our dancers also represented us at the cultural fest called “Milestone” at St. George’s Academy in Mussoorie last week. For their swift and graceful moves, they were adjudged fourth out of eighteen teams! Kudos!

All the best for DSMUN, we hope to see rewards by the dozen on the other side of this weekend!
at CERN and also the various software programming used by CERN. It also presented incentives to those looking at careers in Experimental Physics.

The next day began with our host imparting a clear understanding of particle detectors to the group. The lecture on its construction, which has become famous for the financial involvement of many nations was appropriately supported by a visit to the CMS detector and actually looking at the detectors, so precariously placed 100 meters below ground level. The ‘out of the box’ ideas used by engineers when they started designing the gigantic structure, such as using ‘liquid nitrogen’ to dig through the water table broadened our horizons and gave an insight into the level of thinking and innovation involved in the project. The cloud chamber was a great first-hand experience for the group on the conditions in the early 1900’s and the level of equipments used to discover and explore particles. This was a wonderful experience as we saw neutrinos which move at surprisingly low speeds near the ground level due to interference. This was microcosmically the situation encountered by the scientists and engineers when they decided to be the ‘first’. Another highlight of the day was a meeting and photography session with the Nobel Laureate, Samuel Chao Chung Ting in front of the Alpha Magnetic Spectrometer control room. It was a truly memorable experience!

The final day was received with mixed feelings as it was going to be the last day of an amazing week of learning at CERN. We listened to two lectures on the standard model and ‘super symmetry’ by extremely experienced theorists and the future prospects at CERN on the basis of these models. We were also inspired by how the theorists manage to get their predictions as accurate as possible before experimentalists verify them. There was a visit to the CERN Control Center where we effectively summarized the whole CERN Complex and how it had been operating for the past 60 years.

It was an amazing week at CERN and a true learning experience that will certainly enhance our way of looking at things. It was exciting to learn that CERN was planning to give an opportunity to high school students to analyze the data at CERN as it would increase knowledge and participation. This was one of the prospects that can be looked at from the viewpoint of the School and possibly implemented in the future. We bid farewell to our host and the members of CERN on the evening of the final day. We were hailed by them as having been the most enthusiastic group of high school students to have visited them for a long time. We received our certificates and reflected upon the fruitful experience on our way back home!

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**Weekly Selects**

-Crowded House

-The New Yorker

-Candy

-Texas Monthly

-I Wish I Knew How It Would Feel To Be Free

-The Believer

-Has the 'Libertarian Moment' Finally Arrived?

-New York Times Magazine

-The Trials of Philip Halliday

-The Walrus

-Get Out of Jail, Inc.

-The New Yorker

-Vladimir Putin's Chess-Master Nemesis

-New York Times Magazine

-Richard Branson Turns 50

-The Independent

-Don't Be Afraid Of the Clowns

-Buzzfeed

-What Drives Danny Thompson

-CNN

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**Eroica**

Madhav Singhal

In silence lay the keys: black and white,
Till his touch filled the air with melody bright;
Euphony, perfection and acceptance he sought
With her, the Immortal beloved, in his thought.

A Countess she was, and he, low-born
In a world that gave him little but scorn.
A deaf musician, fate’s cruel joke,
So of his love he never spoke.

Mighty symphonies he wrote that outlasted his life,
Sonatas that rang with anguish and strife.
And perhaps when on his death-bed he lay,
She wept and felt a darkness in the day.

Or sighed, and shed at least a tear,
At his final words, “In Heaven I shall hear”.

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4. The Doon School Weekly Saturday, August 16