Get to know more about our directors
Scholars and alumni share their experiences
What do CN Yang Scholars do other than mug??

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The idea for creating a CN Yang Scholars’ Club publication first came up during an overseas trip to Korea, where a group of us visited KAIST in Korea, and were given copies of a publication done by a group of graduate students there, who during a prior trip to Singapore came to NTU and did an article on our university and our programme.

The rationale for the magazine was simply this, that as CN Yang Scholars, we did not really have a legacy. Well sure, there are the numerous individual accolades, and academic achievements that the scholars do get. However, nothing that really captured the esprit de corps of a batch of scholars, the joint experiences and camaraderie that developed as we slogged through advanced calculus or quantum mechanics. The hope was that if we could record and compile literary contributions from the scholars on a whole gamut of topics, we could somehow capture a snapshot of what it is/was like to be a CN Yang Scholar, as well as to provide a legacy to leave future batches. All that, and it was really to have a magazine of our own.

We must apologize how long it took to put this together, and its lacks of graphic quality. As science and engineering students, we found that we lacked certain soft skills needed for a project of this bent. We however hope, that despite these shortcomings, some of you who do read this will think it’s cool, and take this idea and make this a tradition and a legacy. That even as batches continue to graduate and go out to that big world out there, we will have more than just our honours and our memories.

It’s been a whirlwind year for most of us hasn’t it? The freshmen have almost completed the core programme and look alive and well. The other years have also returned to their faculties and duly completed their respective courses. But hey, it’s a whole new academic year again. While this means trading away those old lecture slippers and FBTs for the snazzy business suits of the working world for the seniors, it means one more round of lectures, late night coffee and free lunches for the rest of us. This first issue of the CN Yang Scholars Programme Magazine looks back on what made us CN Yang Scholars. So have fun (wherever your new mugging spot is) spotting familiar faces and finding out things about some of us that you never knew.

Best Regards,

Your Editors
Meet the Professors

Issue 1

Meet the Professors

Professor Peter Rainer Preiser, Director. Family man. Sports enthusiast. With the exception of those from the School of Biological Sciences (SBS), few scholars have had the privilege of interacting with him much. For those who missed his self-introduction at the recent Annual Dinner or are curious to know more about him, here are a few interesting facts about the new head of the CN Yang Scholars Programme.

Hailing from Germany, Prof Preiser went to the US where, in 1985 he finished his Bachelors and his PhD at the University of Delaware on RNA processing in Drosophila fruit flies. He then did a year of post-doctorate studies in Boston before moving to London for the National Institute for Medical Research where he started researching on malaria. He continued there for eleven years until 2003 when he packed his bags for sunny Singapore to join the then fledgling SBS.

Ever since his arrival, he has continued his own research effort on the malaria parasite and even took over as the Deputy Director of the Bio-Science Research Centre. As of October 2010, he formally took over the directorship of our programme. On a normal day, one can find Prof Preiser teaching Microbiology to 2nd year SBS students or lecturing engineering students on the finer points of Biology.

A family man, Prof Preiser is married with 3 boys of ages 5, 9 and 12, the youngest being born in Singapore. His whole family lives here with him, with his youngest son schooling in a kindergarten in Jurong while the older two boys attend the German European School.

Prof Preiser is a strong advocate of living a balanced life. Aside from academics, he plays competitive volleyball in Singapore, something he has enjoyed since his college days in the United States. If you ever find yourself up early, you might find him during one of his daily runs around the campus or clocking the laps in the pool.

In addition to his passion for sports and exercise, his interests include traveling and reading though since having children he purportedly only finds it conducive to read on airplanes.

Manchester United, Labs & Quantum – The Curious Musings of the Past & Present Directors.

Being sport enthusiasts, what do you think of the sporting culture in the world today?

Prof Preiser: Soccer is a dominant sport around the world, to the detriment of other sports. If people ask you to play football, it may not be where the talent is but rather where the money is.

Prof Law: I have a strong thing against “where the money is”. Previously at England, there were 4 divisions of soccer leagues. However, they were not as poor as they are now. Nowadays other than Manchester United, you almost get nothing.

Prof Preiser: I think it’s important that sport is supported in the whole community. People have their own talents, like basketball so on, they should be supported.

Prof Law: I may not be able to compete in Wimbledon but once in a while I can throw in a fantastic shot in tennis.

Are there any particular lessons to be learnt from playing sports?

Prof Preiser: In life there are winners and losers. There is this concept that losing is bad but people learn how to play well together in a team which can be stronger than a bunch of talented players such as when the then dark horse Greece won Euro 2004 fair and square against the traditional powerhouses such as France and Portugal.

Prof Law: Coming back to academic side, running a lab is like running a team. We train the students to be team players, to share results and protocols. The concept in teamwork is that if people work together they can share ideas more effectively and produce better results. Happy lab or unhappy lab, it’s their teamwork, their satisfaction garnered from working together.
Meet the Professors

Most people are under the impression that research work is very individually based. Is that true?

Prof Preiser: Science doesn’t work in a vacuum. What you are working on is based on the knowledge of others, integrating their ideas and yours. Sometimes you cannot do it on your own. For example clinical drugs need patients, medics and people to conduct the clinical trials to get samples.

Are there any particular types of people that are more suited for research work?

Prof Preiser: People who don’t accept the answers as always right. Why is the answer right? Are there other alternatives? Curious people in short.

Prof Law: Curiosity is the key. If you push it to the extreme, research is forever proving whatever we know as wrong. What we know always has little bits that don’t quite fit in. Newtonian mechanics is very sufficient in our daily lives but in special cases quantum and relativity open up new ways of thinking about things.

Prof Law is an avid supporter of Liverpool.

When commenting about his recent appointment as the CN Yang Scholars Programme director, Prof Preiser was quick to quote: “The way it works, like in everywhere in the world, If you want to get something done, give it to the busiest person”. Indeed both the outgoing as well the incumbent programme directors are no doubt two terribly busy people. Still, they found the time to grace us with an interview and amongst other things discussed, we touched on some more poignant issues: Their thoughts on the transition of the directorship, possible developments in the pipeline, as well as their vision for the programme and the scholars.

When asked about his stepping down, Prof Law was a mixed bag of emotion, relieved and excited that an energetic fresh replacement was stepping in, as well nostalgic on his four and a half year journey with the programme, from the mammoth organizational task in arranging the modules initially during his three year initial appointment, to the limbo of transition during the fourth year. He was especially fond of the self initiative of the scholars in setting up of the CN Yang Scholars’ Club, as an avenue for peer support, as well as the structure for organizing overseas trips for exposure.

Prof Preiser shared how he was still getting familiar with the people and structure of the programme, taking an initial hands-off approach since the system was already running well, and brainstorming with Prof Law on how to improve it.

They agreed that they hoped to see, in the future, a permanent committee of representatives from the different schools, appointed by the president provost to oversee the programme, improving the structure of leadership for the programme.

Other possible new developments would be revising the core curriculum originally adapted from Caltech & MIT to better suit local science and engineering students; perhaps the inclusion of computing, statistics or engineering principles. Also, possibly in the works is a semester of external research.

Their vision for the programme was for the scholars to become well rounded, holistic individuals, comfortable with crossing the interface between science and engineering, being able to realize and solve future challenges with social responsibility in mind. Not necessarily people who go on to get a PhD or pursue research, though good, but curious people, willing to test and challenge conventional knowledge and influence trends, equipped with the ability to think as researchers and develop the right questions and inquiry methods.

The tip they would leave with scholars: to be interested, curious people who see problems from different angles and question assumptions.
Our Trailblazers

When our first batch of scholars came in in AY 06/07, no one was certain how well the new scholars could cope with the rigors of the programme. 4 years on, our pioneer batch did well, with 85% getting 2nd upper honours and 30% getting 1st class honours.

Now, after graduation, what will be the next big thing for them? Will it be further studies or straight to work? As a survey done by the CN Yang Scholars’ Club has found out, 33% of them went on for postgraduate studies while the remainder entered the workforce.

The alumni have the following to say:

Choose what you like to do.

---- by Ms. Milly Choy (Biological Sciences)

Join the programme with a focused mind and always be clear of what you wish to achieve and gain from the CN Yang Scholars Programme.

---- by Mr. TEE KOK HENG (Aerospace Engineering)

Follow your heart, don't worry too much about what others think.

---- by Ms. Veronica Koh (Mechanical Engineering)

Start looking and planning early. It will pay off.

---- by Mr. Daniel Choo (Aerospace Engineering)

Interview With Er Chen Han, winner of LKY gold medal in Physics

Why physics?

To me, Physics is the fundamentals of science. It’s the human attempt to understand about the physical world. I’m the kind of person who likes to understand the fundamentals. I guess that’s the reason why I like physics so much.

How much effort is needed to get the award?

Actually I don’t really know the criterion of the award but I guess academic performance is one. As a CN Yang Scholars, I was very fortunate to be given the opportunities to attend two overseas meetings (One an informal student conference, the second the Lindau Meeting). Another possible reason was the teaching opportunity that I was given in PAP.

How do you feel about your achievement?

To be honest, I do not really view this as a real achievement as I haven’t really achieved much in science.

What advice would you like to give to your CN Yang juniors?

To me, the most important thing is to understand ourselves and know what we really want.

How has physics changed your life?

Physics training has molded the way I view things and it affects my attitude towards life.

How you feel about your 4 years as a NTU student and a CN Yang Scholar?

As the pioneer batch of CN Yang Scholars and the 2nd batch of PAP students, I was given the space to pursue my own field of interest with great flexibility.

What do you intend to do next?

Currently my plan is to work in NTU for a couple years before I further my studies.

What kind of advantage do you think being a CN Yang Scholar gives you?

We are given chances to learn more at an earlier stage. I think these are the opportunities for us to explore our own interest. Besides that, I think this programme has given us an environment to know how people from different academic background think on a certain topic. This kind of interdisciplinary interaction has become even more important nowadays.
Opportunities for research have been the difference between the CN Yang Scholars Programme and other programmes.

From as early as year 1, scholars are given a chance to indulge in research through a major prescribed elective CN Yang Scholars Programme Research experience (CNYPR). With an early taste of research, scholars who are interested to pursue further research are allowed to do so under the support of the office. Scholars are also encouraged to participate in research programmes such as URECA (Undergraduate Research Experience on Campus) if they meet the requirements.

Through countless hours spent in research, our scholars have achieved achievements in their respective research fields. Get to know how our scholars feel about research.

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Interview with Evelyn Cheo

**What is your area of research?**

My area of research is on catalysis: synthesis of mesoporous catalysts for carbon dioxide reforming.\[\text{(CO}_2 + \text{CH}_4 \rightarrow \text{CO} + \text{H}_2)\]

**Was that your first choice? Would you recommend sticking to one particular area or to change projects from time to time?**

Yes. It was my choice. I think that it will be good to focus and specialized in one area after some exploration. In our first few years in University, it is good to explore more projects in order to find out your area of interest. However, after finding your area of interest, it is very important to cultivate a passion in the subject, because passion and curiosity fuels the desire and persistence to explore and discover new things. The process in research is long and tedious, it requires patience and passion, without the interest in the area of research, it will be difficult to make breakthroughs.

**How did it feel to have your name on a research paper publication?**

It was a thrill when I first saw my name on the paper. It is hard to describe the feeling. I just felt that my hard work paid off.

**What have you learnt from doing research? How has it changed you?**

I have learnt to appreciate science more after I started doing research. In school, we learnt theories and ways to solve examination questions, however, how many of us truly understand and appreciate the things we learn in school? It is only when I have started research that I realized the meaning behind the derivations of theory and concepts. In research, especially in publication of papers, it is not just about working on the same experiments every day. We have to draw relationships between the results obtained and make logical assumptions of possible law of nature of things. It involves a lot of analysis to identify the patterns and provide possible logical reasoning to the patterns.

**Any advice you would give to people who are interested in research?**

Experiment with passion and curiosity. Never be afraid to explore the unexplored independently.
Interview with Leung HoFai

What makes you want to do research?

I enjoy solving mysteries, because they require a multidimensional approach. There is a great element of intuition, diversification of knowledge, and creativity. I guess this aspect of research makes me excited and keeps me engaged in problems. If I were not a scientist, I would probably aspire to be a police detective like Sherlock Holmes.

What are the things you have learnt from research?

The most important thing I’ve learnt is that research is that it is more of a journey than a destination. It is very important to understand that in research, it is normal to fail. The failures researchers encounter, however are actually the seeds for a new journey, and whatever happens, you will certainly get somewhere if you put your mind to it.

What are the tips you would give to juniors who want to do any form of research?

Balance is important. You may think that when you dive into research as a career, you would not have the burden of schoolwork as you have now. However, if you become an academic, you would also have to do teaching and service to the university. If you work in research organizations, you still have to interact with your colleagues, attend conferences, and so on. There is also your personal life. So while you still have the chance in CNYSYP, learn to cope with the demands of the curriculum as well as your research, it would be very helpful in your future, be it in research or not. Join CCAs, make new friends, and explore areas which you have never seen before. Learn to take failure with a smile, and keep your mind open to new ideas. Often, you will find the greatest ideas come from areas which have nothing to do with the original topic. It is actually this courage to break out from your comfort zone that defines whether a researcher is great or not.

How did you discover your passion for research?

I think how I knew I really enjoyed research was that, whenever it came to mysteries, it got my adrenaline pumping. Since young, I’ve been fascinated by famous mysteries, such as the existence of ghosts, UFOs, Atlantis, psychic powers, and the like. I often find myself reading many books and searching for a lot of online material to see what conclusions other people came up with and tried to reach my own conclusions. The same childhood fascination still remains when I’m in my lab, sourcing for journals, seeing possibilities, or sometimes just dreaming up new ideas. Even in what is probably conventionally ‘boring’ to researchers, (such as preparing samples), I find it is still possible to derive enjoyment by just being one with the task, putting my full attention to it and meeting tricky physical-skill challenges such as the glove box. So the whole process is very enjoyable.

What do you do in your spare time other than research?

I’m interested in badminton. I enjoy it because it is fast, requiring quick thinking and reflexes. Other than that, I also enjoy reading and writing about fields of studies I’m interested in. Finally, I like to go out, meet new people, and listen to their stories. It is very engaging to hear what different people have to say about the same thing.

What are you researching on?

I’m currently working with Professor Alfred Huan, (HOD Physics and Applied Physics) in analysing the properties of organic compounds in organic photovoltaics. The main interest is to see what properties affect the efficiency of such compounds in their role in PVs, and how they affect the efficiency. Prior to this, I was working with Assistant Professor Chew Lock Yue (Physics and Applied Physics), on a theoretical physics project related to the non-linear dynamics of heart arrhythmia.

“Learn to take failure with a smile, and keep your mind open to new ideas. Often, you will find the greatest ideas come from areas which have nothing to do with the original topic.”

Leung HoFai
Year 3
Physics & Applied Physics

HoFai during the Korea trip
Interview with Derek Phang

What are the difficulties in organizing overseas trips?

It is sometimes difficult to get a prompt response from all participants due to the large number. Also, not all the universities will respond favourably/promptly to our requests. During the overseas trip itself, the participants would be splintered into smaller groups.

We overcame these by appointing ICs and delegating responsibilities to them. We also emailed multiple universities, and stayed in contact with student coordinators who arranged previous visits to NTU, and employed their help in arranging the trips.

What have you gained from the trips?

During the overseas trip, I learnt to better manage a large group of people, through teamwork, and communication.

From the good teamwork we had displayed, I felt the past two trips were a success, indicated by the participants in the post-trip surveys.

Why did you take up the role?

I did it because I enjoy traveling and networking with peers from all the world. I have been able to create lasting friendships across the world which I am sure they will be receiving us with open arms again if we ever visit them again.

I also wanted to give CN Yang Scholars a preview of how it would be like to do their exchange/graduate studies at the visited universities. This will allow them to have a chance to network with their peers and academics of their majors.

Any other thoughts?

I am glad that the participants followed our instructions most of the time, making the two trips smooth and easy. I also appreciate the fact that our friends from KAIST took their time off from preparing for their exams just to take us on day tours around Korea.
The trip to Korea involved both academic exchange visit and leisure travel. Basically, the trip had two parts, where the first 4 days was spent in Seoul where we travelled around under a tour guide, followed by the next 4 days where we moved over to the smaller city of Daejeon. Daejeon was where KAIST was located. In our 4 days there, the KAIST students hosted us while we visited their campus, had academic exchanges with their school as well as short trips to tourist destinations around Daejeon.

The visit to KAIST was an enriching experience. We were brought to visit four of their research facilities and it was clear that they were definitely one notch above us in terms of research and development. My most memorable visit was to the satellite and robots research center. We were brought in to the actual satellite control room where they monitor the currently functioning satellite and also a robots building room. The wide array of advanced equipment they have was certainly impressive. Their labs were also very established, complete with all the necessary facilities. Mentioned by their school’s coordinator, Science and technology is one of the most important area of development in Korea, as such they have adequate funds for their scientific research and development due to the heavy investment of funds annually.

On one of the days, we even went into Ehwa Women’s University for our own “exchange visit” where we roamed around their beautiful campus. The visits were quite enriching as we learn more about the history and stories behind the places. We also had a really engaging tour guide who told us many interesting stories which allowed us to understand more about the traditional culture and values of Korea. For example, the fact that we do not see any dustbins along the streets and that they use metal cutlery for meals both have a story behind them.

Another thing about Korea which I found interesting was that there are public toilets conveniently located everywhere along the streets. They even have sign boards showing directions to the toilets. Furthermore, their toilets are almost always in superbly clean conditions which I think the Koreans should be commended for.

The people in Korea were mostly friendly and polite. However, most of them could not speak or understand English so it was hard to communicate with shop keepers when buying things. Most food menus and signs are also entirely in Korean, so we had to resort to point to pictures most of the time.

The food in Korea was also a unique experience with their heavy consumption of kimchi and spice. After the first two days, most of us were so sick of kimchi that most people left kimchi untouched during meals. We had most of the common Korean fares, such as BbimBap(mixed rice), Korean pancakes, rice cakes, Ginseng Chicken, barbequed meat wrapped in lettuce, and also the more unforgettable ones like the duck meal and the Korean-Japanese fusion meal we had.

This trip certainly allowed me to have a taste of the culture, people, traditions and life in Korea. It is a pleasant country to visit. However, if I were given the choice, I will not study there as Korea is still pretty much an Asian environment which I am already experiencing in Singapore. Further, the school life in Korea is also rather stressful where almost all students focussed all their time on studying with little or no participation in extracurricular activities.

Overall, this Korea trip was a very fulfilling one and I am glad that most of them who participated had enjoyed themselves very much.
An Exchange Diary by Tanvee Rao

A Dream, that’s all was: A young girls’ dream to see the world. “When I’m older, I want to go to Europe!” Even as a teenager, I knew Europe was just too big to be seen on a tour. So I decided the only pragmatic way was an exchange programme, where I could live there for long enough to experience it all. However, at 14, I was still too young, so I dreamt. Little did I know that I would be living that dream just 7 years later, when I went to the Technical University of Delft of Netherlands on an exchange programme.

It was a magical 6 months starting from the first moment I stepped out of the train station into the snow, into the quaint and lovely aura of Delft. A university town with modest tourist attractions (their famous Delftware pottery workshops, and views immortalized by Vermeer in several of his paintings), Delft has a well preserved history on the one hand, and a buzzing student culture on the other.

My favourite part was the cycling trips through the country. For half a year, I would cycle 20 minutes to school and back, and watch as the scenery around me changed from breathtaking views of bare dark brown trees outlined with snow, to the gorgeous bright green that came with the spring, and then lost out to the white, pink, purple and yellow of flowers that clamoured for attention. If I took my eyes off the trees for a while, I’d spy elegant swans and waddling ducks having a jolly old time chasing each other or dipping their heads into the many canals that are a trademark of Netherlands.

Back in my room I plotted my forays. Next weekend free? Stockholm. The weekend after that? Cologne. One week in May with no classes? Berlin, Munich, Salzburg, Vienna, Bratislava and Budapest all in one go! Feel breathless reading it? Well, you can imagine my emotions while doing it.

It was not, however, only the travelling and the studies that made the exchange different from semesters in NTU. Netherlands being a developed country had a high cost of living, especially when it came to food. So I was forced to learn how to cook. Starting out with basic pastas to more complicated Indian dishes that made my grandparents back home proud, it was quite the learning experience. It also made me appreciate the variety and prices of food we get in the canteens in NTU.

All in all, going on this exchange programme was the best decision I ever made. It helped me expand my potential academically as well as gastronomically and showed me a life I could only ever dream of living. 6 months, 16 countries, 37 cities, 8500 photographs and an innumerable number of experiences later, I can only say I’ve truly and fully lived my dream. Will you?
Events

CN Yang Scholars’ Club and the programme office have organized various events to promote cohesion between scholars from different backgrounds and the faculty members. Some of the events organized are lunch gatherings, annual dinner, welcome lunch, post exam celebrations, good luck exam welfare packages.

Looking forward, the club aims to have more varied activities to spice up the undergraduate lives of our scholars. *Who says scholars can’t have fun and do well?*

Freshmen Welcome Lunch

Being a freshmen is never an easy task. Expectations are high both internally and externally. Stress is inevitable. Welcome lunches are a great way to start one’s undergraduate life as one gets to meet seniors who will prove to be invaluable in helping freshmen to cope with their transition into the programme and undergraduate lives.

Freshmen Welcome Speech by Ethan Ow

First and foremost, congratulations to the new batch of scholars, welcome and good luck and most importantly have fun.

This shall be the beginning to your nightmare. I am kidding of course. Welcome to this new chapter of life, the life as an undergraduate. I’ve read so many articles saying that how this chapter of life will be the best. For me, being part of this, proves this motion right.

Imagine taking a ride on the path less tread. The CN Yang Scholars Programme opens up an alternative route, challenging no doubt but nevertheless rewarding. At the end of the day, we will all become NTU graduates but it’s the experience along the way that counts.

One very important thing that I learnt while serving my term as the President of CAC Dancesport Academy and Vice President of CN Yang Scholars’ Club is time management. With good time management skill, you can achieve way more than you expect. Prof Lok Tat Seng once said to me this “The less time you have, the more things you will get to do”, which I personally find very true. Having a packed schedule keeps me motivated and driven, knowing that I have deadlines to meet. And most importantly, do not forget what your main priority is.

And when do you know if a goal is achievable? Well basically you don’t. Just make sure you give it your best shot while attempting it. You might not be able to achieve every single goal you set, but one thing certain is your effort will never go to waste. Even when things don’t go the way you expect, as it will happen in life, if you make the best out of the situation you are in, there will be something worthwhile.

Enjoy the things that you do, make the most out of this four years and most importantly, have fun.
Events Spotlight

Annual Dinner 2010 by Yap Chor Yen

The Annual dinner isn’t just another dinner. It is an occasion for all batches of CN Yang Scholars, of different schools and disciplines, to interact and enjoy a night of sumptuous dinner and showcase their performing talents together.

The second ever annual dinner was held in the ballroom at Raffles Marina. Any notion that such an event would be dull and boring was quickly thrown out of the mind when it got underway. Three fun-loving and humorous emcees drew the attention of the audience and ensured the timely flow of the events. The buffet-style dinner allowed a flexible choice of food for all.

This year’s dinner was particularly special as we celebrated the graduation of the very first batch of CN Yang Scholars. They were the pioneers who took on the challenges of this scholarship programme and we wish them all the best in their future endeavours. Recognition was also given to Year 2 students who had completed the programme’s core curriculum with excellent academic results, topping their cohort.

The tale time competition included areas of music, dance, singing and song-writing. Mesmerizing voices, enchanting melodies, fancy dance moves, and the occasional injection of humour kept the audience entertained. The annual dinner would not have been as successful without the help of special individuals. Thanks must go to Ms. Lee, the CN Yang Scholars Programme office, the CN Yang Scholars’ Club committee, the emcees and performers and everyone who attended the annual dinner. It was an enjoyable event to be remembered for months to come.
Following that was the fashion parade segment that included a question and answer segment to find out who was the most geeky and glamorous couple of the evening. Needless to say, with four years of experience in the CN Yang Scholars programme, the seniors showed everyone the winning combination of brains and brawn. Much to learn you have freshmen. Besides the food and entertainment, the dinner also honoured the best and brightest of the sophomores who had finished the CN Yang Scholars Programme core curriculum.

Special thanks to all the people who made this fantastic night possible. Here’s looking forward to the Annual Dinner 2012.
I have to thank fellow scholar, Audrey Lim for introducing me to cycling. She somehow managed to persuade me and a few other scholars to join the 2008 NTU Bike Rally.

It was the most painful and rear-numbing experience I have ever been through. My thighs were screaming from lactic acid burn and cramps, I was sun burnt and severely dehydrated after 11 hours of grueling pedaling.

Strangely, I rather enjoyed it.

I enjoyed the relatively scenic route, the satisfying muscle pain after a good day’s ride, the never ending supply of Gardenia raisin buns, but mostly of all, I enjoyed speeding on a wheeled machine powered by my own two legs. It’s an intoxicating feeling.

After the Rally, I thought of picking up cycling as a hobby, and 2 months later, I did.

I got into mountain biking first. The initial investment in cycling gear was expensive. A basic good quality mountain bike costs upwards of SGD300. I spent more than that, opting to go for a bicycle with quality parts.

The investment was worth it. It was a joy to follow groups of mountain bikers on trips into the trails of Bukit Timah and Kent Ridge Park on weekends. The trails are dangerous, I admit, to the new rider. You need experience to ride the tracks well, which are often muddy, rocky and filled with roots. Crashing is the norm and is part of being a true mountain biker. I went into each trail expecting some bruising or cuts and mentally preparing myself for the thrill of careening downhill, jumping over rocks and rolling over roots, hanging on for dear life and praying hard the bike would not crack from the abuse dished out to it on a weekly basis.

Quite naturally, my luck ran out. While preparing for my first mountain biking race in March 2009, I lost control on the slippery roads of post-rain NTU and hit the tarmac as my bike flipped. I broke my right arm, could only manage to write 2 out of the 7 papers I was meant to sit for that semester, delayed by graduation by a full year as a result and had to quit mountain biking. I learnt 2 valuable lessons that day.

1) NEVER RIDE ON WET ROADS
2) ALWAYS WEAR A HELMET WHEN CYCLING

While recovering from said broken arm, I plotted my return to cycling determined not to let injury keep me from a sport. I did get a lot of flak and criticism for this though. My mother especially thought I was crazy to get back into cycling: “Yuvan, (my pet name at home), who do you think you are? Some kind of hero is it? You’ve already broken one arm, probably disabled for life, now graduating late and then no one will want to marry you.”

To be honest, it was crazy, but the same can be said about love. Love is irrational and mad, yet it comes with a sense of fulfillment and wholeness unmatched by anything else.

The minute I was fit enough to ride again, I sold my mountain bike and purchased a beaten up road bike from an old chap in Sembawang. I suspect he ripped me off with his description of it. “Eh boy, I tell you one. This bike cannot find outside. See the parts, so good one. I give you good offer, you try to find outside then if can, I say I wrong. If not you wasted good chance already”

It was a bad buy. The bike was heavy, the gears were oddly matched and it was old. But I loved it. It was the first machine I rode at over 40kph down West Coast Highway with a local cycling club. I rode it numerous round island rides. It gave me speed and comfort to handle long days exploring Singapore. I’ve since upgraded to a lightened carbon-fibre aluminium road eating speed monster.

I now ride frequently with groups from NTU (The NTU Cycling Team), less frequently with fast groups from outside NTU and very regularly with one particular group that departs twice a week from Pioneer Mall. I am quite easily the youngest member of that group at 21, the next youngest is 25, and the oldest is 55. They called themselves the Jurong Riders. Hardy an imaginative name, but boy were they fun to ride with. They were very friendly, treating me like family, nurturing me in the group and protecting me on rides from the various dangers on the road, such as cars and potholes.

When I was asked to write this article, I was asked how I managed to find the time to cycle. To be frank, if you love doing something, you will always find time to do it.

I love cycling, so its not amazing how I find the time. The time is there, always. Its up to you to either spend it on facebook, or pursuing a hobby.

I am not going to go into the technical side of cycling. I’m here to share my passion for the sport and that’s it.

I lead a relatively simple life in Year 4. I wake up, have a really good breakfast, attend class or spend the day in the lab desperately trying to make my experiments work and then I go for a ride. It’s a simple life, and I love it.

Cheers and Ride Safe!

Yuvaraman Viswanathan,
Year 4 EEE

Fellow cyclists from the NTU Cycling Team before a typical Sunday morning ride
(Yuva is in the centre)
What is Ultimate?
Ultimate is a seven-a-side team sport played with a Frisbee. It is played on a rectangular field 67m long and 37m wide, with an end zone at each end that is 23m by 37m. The object of each team is to score a goal by having a player catch a pass in the end zone that they are attacking. A thrower may not run with the disc, but may pass the disc in any direction to any teammate. Any time a pass is incomplete, a turnover occurs, and the other team may take the disc to score in the opposite end zone. Competitive games are normally played to a point cap of 17 or time cap of 100 minutes.

Ultimate is self-refereed and is a non-contact sport and the most important thing about Ultimate in my opinion is the concept of “The Spirit of the Game” which guides how players referee the game and conduct themselves on the field.

It is most aptly summarized in the following paragraph that can be found as a preamble to the rules of play:

“All players are responsible for administering and adhering to the rules. Ultimate relies upon a Spirit of the Game that places the responsibility for fair play on every player. It is trusted that no player will intentionally break the rules; thus there are no harsh penalties for breaches, but rather a method for resuming play in a manner which simulates what would most likely have occurred had there been no breach. Highly competitive play is encouraged, but should never sacrifice the mutual respect between players, adherence to the agreed-upon rules of the game, or the basic joy of play.”

Ultimate in Singapore
It is very easy to find a game of ultimate in Singapore, as the community is growing every day. Pickup games can be found at the Bugis fields on Mondays and Wednesdays, at Siloso Beach on Saturdays and on the West Coast fields on Sundays. Besides these newbie friendly venues where one can go to learn the game, there are also a number of competitive clubs that train regularly and internationally recognized leagues and tournaments that occur all throughout the year.

One unique feature of the Winter or Summer Leagues in Ultimate is that anyone can join and will be placed in a team where he or she can learn to play the game at a competitive level. It is hard to find another sport that has such structures in place to receive new, inexperienced players.

My Personal Experience
I first picked up the game at Sentosa where an exhibition match was being played, as part of an event organized by the Health Promotion Board. It was there that I first learnt about the Singapore Ultimate Players’ Association and first learnt how to play Ultimate. A couple of years of playing along pickup lines, I felt that I had learnt enough to play on a league and signed up for my first league. It was quite an experience.

For the first time in my life, I encountered proper team play in ultimate, from new ideas such as a zone defense and how to launch a proper offensive play against the opponent. There was so much that I still hadn’t learnt about the game.

The series of league games were eye-opening and launched me to begin learning the game on a higher level.

Then came university and the NIE-NTU Frisbee team, where I was in a full time Ultimate team for the first time. I began to see what team play in Ultimate was like. There were so many new dimensions to the game that I had yet to explore and so much more to learn.

Having played the game for so long, I admit that I am in love with the game. There is always a carnival like atmosphere during the leagues and tournaments and the chance to get to know people from all walks of life.

In fact the players even boast an actor from the Philippines, Derek Ramsey who’s a familiar name on Filipino screens was involved in the recent Singapore Ultimate Opens on the team that won the tournament! Who knows who you’ll meet at the next tournament!

Summing up, I’d like to encourage you to try the sport. You may just come to love ultimate like I do.

Garen Kwan
Year 4
Physics
(far right)

You can find out more at these sites:
www.singaporeultimate.com
ntuultimate.wordpress.com.
University. It means so many different things. A degree, a place to learn, a place to have fun. I have always sought to do something different, to find my niche. Hence, when I chose to study in a university, I decided to take up the CN Yang Scholars Programme, to challenge myself. Academics aside, being in the CN Yang Scholars Programme has coloured my University life. I believe that as CN Yang scholars, we are very blessed in the fact that so many things are taken care of on our behalf. It is due to this that we have the opportunity to pursue our avocations with ease.

After joining the CN Yang Scholars Programme, my life has become more ordered and I have realized the preciousness of time. With so many commitments and assignments, there are days with hardly any time to breathe. However, in the midst of all of this hustle and bustle, I’ve also come to recognize that once in a while, we all need a break.

My break is Emceeing. Being on the stage with a mic, leading an event from the beginning to the end is an exhilarating experience for me. It allows me to forget all the pending assignments, tests, and submissions. For those 1-2 hours, the stage is my world. It allows me to be a part of so many events, and also meet so many different kinds of people. One of the added advantages of being an emcee is that it takes you to so many different kinds of events. From baptism ceremonies to Campus Runs, from freshmen welcome ceremonies to Alumni meets, we are everywhere.

Emceeing has made my NTU life interesting and unique. What makes your NTU Life special??

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**Starcraft 2—Wings of Liberty** by Cheung See Lin

How to defend 9 pool zergling rushes for protoss

There are a few ways to defend zergling rushes.

The most important thing to take note of is to scout early (after you build your pylon).

The easiest way to defend is to go early forge and build 1-2 cannons to defend your mineral lines. After that, you will want to transition back to normal ground troops and not spend too much minerals on cannons. Position your buildings such that the cannons are protected. If he tries to run your cannons, move some probes in front of your cannon to block access to it. If you went the 10 gate or 12 gate build while choking your ramp, chrono boost out your 1st zealot. This is very important as leaks can be very damaging. Hold position at your choke point. DO NOT send the zealot out to engage his 6 zerglings beyond 1-2 steps of your choke as if the zerglings surround your zealot it is dead.

If he attacks your buildings, boost out your second zealot and engage him when it is out. The same rules apply. do not chase him if he retreats and try to keep your back to your buildings and your zealots side by side to minimize damage.

If the 1st 6 zerglings went into your base, bring 3-4 probes out and chase him together with your zealot. Chrono boost out your second zealot and hold position at the choke to prevent further reinforce-

ments. As zerglings have 35 life while zealots do 8x2 damage, the 3 attack is actually overkill thus the probes tagging along with your zealot to deal the extra 5 damage. The probes also helps prevent the zerglings from getting a surround on your zealot allowing them to last longer.

On a side note, if you are the zerg doing the 9 pool, if you manage to surround a zealot, all you have to do is to pull back the zergling that has been slashed twice slightly and let it rejoin the fight and the zealot should fall quickly without you losing anything. You will have to do it twice.
Hi everyone,

I was originally asked to write about my experiences in cheerleading and dance, but I suppose that would be highly irrelevant to the majority of you scholars, so I thought I’d share my honest reflections on my journey thus far as a CN Yang Scholar instead.

I’m sure most of you are enjoying every learning process in the programme and I’m happy for you in making the right choice to be a CN Yang Scholar. For those who may be having second thoughts, here’s my story for you:

Since my freshman year, I’ve repeatedly questioned my choice of being in the programme, or even my choice of majoring in Biology in the first place. Science was something I’d been studying all my life, no thanks to our rigid education system. It was a safe and comfortable choice at that time. Perhaps since, the grass is always greener on the other side., I couldn’t stop wondering what if I had chosen to walk the path of the arts and humanities instead. After all, my interests in reading, writing, drawing and the performing arts seemed to correlate more with these.

My first semester in the programme was probably the bumpiest academic ride I’ve ever had. I still vividly recall that semester consisting purely of CN Yang modules. The physics and math theories covered were an enormous jump from the A level standard. Within the first few weeks, I was struggling. While I tried my best to keep up with lectures and tutorials, my inability to comprehend the topics left me slipping further and further behind. I began to dread attending lectures. Tutorials were worse because I risked being called upon to answer questions which I didn’t have a clue about. It didn’t help that the grading system was based on a bell curve, because in a small class of geniuses, I was at a great disadvantage. At the end of the first semester, the only A grade I got was for biology.

Somehow, I managed to survive the subsequent semesters, learning a little trick or two to help me get through the rest of my CN Yang modules. One of the best advices I can offer to you guys is to seek help from your peers. The many nights we’d spent together figuring out numbers and symbols was definitely a warming change from struggling alone.

Now as a senior, I’m convinced that my career path would be one unrelated to any of those difficult CN Yang modules I’ve been through. In fact, it is likely that I will not be pursuing a career in the direction of my biology major at all! So, would I consider being in the CN Yang Scholars Programme a waste of time?

Not at all! While I may not have met the aims of the programme academically, I believe that going through three semesters of theory overload has still somehow stretched my brain’s processing ability to a whole new level. I used to deliberate the possibility of a career in the sciences, after experiencing lab work, I’m pretty certain that’s not exactly my cup of tea as a long-term pursuit.

Besides that, the perks of being in the programme are aplenty! The priority that scholars enjoy for overseas exchange positions gave me the opportunity to experience a semester on exchange at McGill University, the top university in Canada. Only two students were chosen for that exchange and from what I heard, the other girl who went had a GPA of 4.99! (I was hardly close!) It was an unforgettable experience.

My stay in the hall of residences has been worry-free, thanks to the benefit of a guaranteed hall stay. But that does not mean that hall activities had become redundant for me. With the guarantee, I had the liberty to participate in only the activities I enjoyed, without having to take up multiple time-consuming leadership roles for the sake of securing a position in hall the next year.

I also had the opportunity to be on the main committee of the inaugural CN Yang Scholars ‘Club as a Welfare Representative and it was a really good experience witnessing the club taking root.

Besides that, it is indeed a blessing to get to know many peers from the various science and engineering faculties. Recently, I was working on a personal project which required the use of certain expertise which I lacked. However, because of the

(Continued on page 18)
Experience in CN Yang Scholars Programme by Aw Chee Yang

I had the privilege of being part of the 2nd batch of CN Yang Scholars. It provided me an insight into research work, as well as opportunities to meet people of various nationalities from different courses. In addition, the 3 semesters of tough and demanding courses bonded me closer to my batch mates. I am especially glad that the programme brought my fellow chemical engineering scholars closer together. I truly enjoyed myself, tackling the interesting modules while engaging interesting professors.

I also consider myself lucky to have been able to explore other countries through the GIP Study Programme in Georgia Tech as well as the GIP Prelude to Shandong University. These experiences were invaluable in widening my perspective. The world out there is really much bigger than I would imagine. I learnt to be more appreciative of Singapore for many things we take for granted.

Aside from the academics, I also treasure my time in hall. Taking part in various committees, I had my fair share of fun in friendly inter-hall competitions, working in very good teams of diversified backgrounds, as well as contributing to the integration of the freshmen into NTU.

Coming into the final stretch of my university life, I look back at these memories with a sense of nostalgia, and look forward to the excitement that lies ahead in the next phase of my life.

Best Regards,
Chee Yang, Aw

Surviving CN Yang Scholars Programme by Xie Wen Jun

The CN Yang Scholars Programme is a great programme for science and engineering students. It gives us the chance to explore different fields, and at the same time, take research under the supervision of experienced professors. Risk always follows chance. With the opportunity to learn more, expectations will be higher, making it easier to fail.

Courses under the programme are challenging for all students from different majors. For engineers, the courses are more difficult than the typical engineering science modules. For science students, it is no walk in the park either as we have to study courses outside our own preferred discipline.

The CN Yang Scholars Programme helps widen our horizons, and give us a firm foundation, but it also stretches us greatly.

Hard work is needed, especially for the first semester, when we have to take math, physics, chemical and biological modules at the same time.

Efficient time allocation is key. It’s good to divide study time between different courses. As focusing on competing disciplines will probably result in confusion. Also, some students from certain department have to take more modules.

If you survive through semester one, the sheer quantity of material to learn is reduced, though the courses become harder. Fellow scholars are a lifeline, discussions with students from math or physics can benefit you a lot, especially for quantum mechanics or linear algebra.

The CN Yang Scholars Programme is like a big family, we watch out for one another.

Surviving the programme is not hard as long as you keep your passion for acquiring knowledge. Moreover, learning from excellent professors and wonderful classmates from the CN Yang Scholars Programme is a great experience to remember for life.
Things that nobody told you (about surviving the programme)

A while ago I was invited to contribute an article about my experience (ordeal might be a better word, perhaps?) through the 3 semesters of the CN Yang Scholars Programme. As many of you may have realized by now, this programme is about as tough and rigorous as an undergraduate education can get. So while you simultaneously feel good that you’ve been selected to join this prestigious programme and fear the enormous hole that you’ve dug yourself into, I was kindly invited by the editors to contribute my views on surviving this 3 semesters.

I could start by talking about the importance of time management, being conscientious in your work, setting achievable goals, but you already knew that. Let me talk about some other things:

1) Do Research

As a mandatory research module, you’re already been exposed to some of the rudimentary aspects of undergraduate research. Why not continue? Some might argue that they have no time, but the benefits are plenty. Apart from the obvious academic/CV benefits, you get to be in close contact with a professor, who will in all likelihood become your mentor throughout your years in NTU. If there is a topic you truly love then you can feel free to pursue your academic instincts to their ends, while getting remunerated for it.

Some might say “why should we” but instead, I ask, why shouldn’t you?

2) Bust The Stereotype

Scholars are perhaps one of the more misunderstood groups in NTU. In school we get academic privileges; in halls we are guaranteed a spot. It’s easy to be misunderstood, and I feel that it’s important that we put in effort to change people’s perceptions of us.

I’m not saying that you should paste huge posters or things of that sort. But just because you’re guaranteed a hall doesn’t mean that you don’t need to participate in any of the myriad hall activities that exist. Join some sports or games training. In school, mingle with those outside of your Band of Brothers. Do your best to get outside of that exclusive community that you’ll inevitably end up in.

By showing others that we are normal people, you’ll not only help yourselves, you’ll help everyone that was ever a CN Yang Scholar.

3) Stop and Smell the Flowers

I know that this is a cliché but personally I think this is really important. Life will end up being a constant struggle to stay on top of your work, and a never ending chase for good grades. In the midst of all these, take care not to lose yourself and who you are in the first place.

Your day starts off better with a cup of good coffee. Your moods improve over lunch with a good meal. A good conversation (or HTHT as we like to call it) relieves the stresses of daily life. Work can seem overwhelming such that you have no time to relax, but if you think about it, preserving the last bastions of your sanity is the most crucial part of surviving all that life throws at you. I chose music, coffee, photography and tennis. Take the time to pursue what you like, even though I am also guilty of neglecting my passions from time to time. After all, if your brain is solely for the purpose of stuffing information, what would be left to remember the unique, irreplaceable individual that represents you and who you are?

The programme is truly not for the faint of heart. I firmly believe that nowhere else will you be tested with such rigour and scrutinized with such detail. It is a course where you will quickly discover who you truly are and what you are capable of. It places us all under immense stresses that we struggle to cope with. I found relief with a meaningful and varied residential hall life, and a chance to pursue my research interests.

However, everyone chooses their own path, and yours would most likely differ from mine. In the end, the most important thing is that everyone finds a way to cope, and if you can’t, remember that penknives are not a solution to anything. I am here to share my experience with you, yet I also realize that your own experience will not be the same as mine, or anyone else’s.

Have faith, and all will work out. To my fellow batch mates and seniors, you (even the girls) must be celebrating like you’ve just ORDed. To my juniors, good luck, and have faith in your abilities!

Alvin Pee
Year 3
Aerospace Engineering

“The life will end up being a constant struggle to stay on top of your work, and a never-ending chase for good grades. In the midst of all these, take care not to lose yourself and who you are in the first place.”

The former captain of his Hall Tennis Team enjoying a game
CN YANG SCHOLARS’ CLUB
3rd Main Committee
Proudly Presents
1st issue of CN YANG Scholars Programme Magazine

More information please visit:
http://www.ntu.edu.sg/cnyang-scholars/
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See you in the next issue!