NEDAC NEWS

SUMMER 2017 EDITION | NED ALUMNI ASSOCIATION CANADA

HIGHLIGHTS IN THIS EDITION:

- Message from the Editor
- Message from the President
- Sham-e-Ghazal
- Canadian Nuclear Industry – Growth and Job Opportunities
- Are Advanced Reactors the Future of Nuclear Power?
- Five Career Lessons Learned from Roger Federer's Comeback

CANADA
CELEBRATING 150 YEARS

welcome to ned alumni association canada

NED Alumni Association Canada is the alumni of NED University of Engineering and Technology, Karachi, Pakistan (NEDUET). NED University is the oldest and largest Engineering university in Pakistan.

The NED University of Engineering & Technology, was established in March 1977 under an act of the Provincial Assembly of Sindh after upgrading of the former NED Government Engineering College, which was set up in 1922. The NED University is thus one of the oldest institution in Pakistan for teaching and producing Engineering graduates. Prior to this, the D.J.Sindh College, used to run classes to train subordinates for the Sindh P.W.D., the Municipalities and Local Boards.

NED Alumni Association Canada (NEDAC) was established in 2006 to provide networking opportunities for NED graduates living in Greater Toronto Area. Since inception NEDAC membership has grown many folds and currently with around 500 members and growing, it is the largest international NED Alumni in the world!

MAILING ADDRESS

4803 Bloomburg Drive
Mississauga, ON, L5M 7K4

EMAIL | WEBSITE

shahid.chishty@gmail.com
NEDAlumniCanada.org

CANADA 150

from the editor's desk

Shahid Chishty, P. Eng. | Editor

It is a pleasure to present the summer release of the NEDAC magazine. You must be wondering why there was a delay of about a month, well we took a break for the month of Ramadan. As you can notice the theme of this quarter's newsletter is CANADA 150, as this year we celebrate 150 years of Canada.

There have been plenty of exciting programs happening in NEDAC, and we have attempted to cover them in this issue of the NEDAC news.

There have been some changes in the NEDAC board recently. I would like to appreciate all the efforts put in by Muhammad Farooq, Social Secretary and Tanvir Akhter, Information Secretary, both recently resigned from the board. Muhammad Farooq provided a lot of energy and enthusiasm in the social programs, and he will be missed dearly. This also provides our younger executive members, Nadia Zia and Ursala Nazar Abbas, to step in the role and carry on the great work left by the outgoing board members.

This quarter is also special in the history of NEDAC as for the first time the process of awarding scholarships has been finalized, and five scholarships were awarded on merit-cum-need to deserving students.

As always, I am looking for feedback and participation from the general membership. If there is any interesting story or life event that you would like to share, please forward to my attention at least three weeks before the end of the quarter, and I will try to include it in the newsletter

Sincerely,

Shahid Chishty

Shahid Chishty, P. Eng, CMQ/OE

from the president

Syed Imran Ahmed | President

I would like to congratulate the Publications committee on releasing another well prepared newsletter. We are celebrating 150 years of Canada and the theme of this newsletter is demonstrating the same.

I would like to thank the outgoing board members Muhammad Farooq and Tanvir Akhter for their support and energy during their time in the NEDAC board, and on the same note would like to welcome Nadia Zia as Social Secretary and Ursala Nazar Abbas as Information Secretary.

The energy and passion of the NEDAC board has been at the highest level which is demonstrated in the recent sold out programs. These programs cannot materialize without the strong support of the membership.

The entire NEDAC organization should be proud to have awarded 5 scholarships to deserving students. This was a dream since the formation of NEDAC to give back to our University. I personally met with the VC at NED campus to finalize the details. The video message prepared by the VC and students who were awarded the scholarships was presented in the EID Milan Party. The messages were so touching that they brought tears to many member's eyes. There has tremendous appreciation and support for this endeavour and we are already getting several pledges and soon further scholarships will be announced.

I greatly appreciate the efforts of Karamatullah and Iram Bukhari in spending their time in documenting the process which is the first cut and will mature over time. Board has approved the process and it has been posted on NEDAC website.

Long Live NED
Long Live NEDAC

Imran Ahmed

Imran Ahmed
President


CELEBRATING
150 YEARS

technical seminar:
growth & job opportunities in the canadian nuclear industry

Nazli Khan, P. Eng | General Secretary NEDAC

NED Alumni Association of Canada is well reputed in organizing technical seminars which are attended by members and non-members alike and are beneficial to assist attendees in becoming an integral part of the engineering industry. This time NEDAC organized its technical seminar on another very important topic, "Canadian Nuclear Industry - Growth and Job Opportunities."

Many of us are not as aware that a good number of NEDians are working in the Canadian nuclear industry and are always available to help others become a part of this industry. Shahid Chishty, our Publication Secretary, is one of them. He is currently working in the Darlington Refurbishment project at Ontario Power Generation. He was instrumental in organizing this seminar from arranging the speakers to the topic and preparing the presentation. Due to the future growth and job opportunities in the Canadian nuclear industry, this is an exciting time for engineers to be part of this reviving industry.

The seminar was held on Sunday, April 02, 2017 at the Admiral Inn Hotel in Mississauga from 12:00 P.M. to 5:00 P.M. The speakers were very well known nuclear industry experts; Mr. Richard Barnes, P.Eng., President of ANRIC, Chairman of the Standards Committee Nuclear Power and Vice Chair of the N285 Technical Committee, Imtiaz Malek, P.Eng., Director, Quality Management/Director Nuclear Safety and Muhammad Akram, Senior Technical Engineer, Ontario Power Generation. The seminar was fairly well attended by NEDAC members and non-members.

CANADA 150

The event began as usual with a networking session. The formal program began at 1:00 P.M by Shahid Chishty with the recitation of Holy Quran, then, President Imran Ahmed delivered the welcome note. Imran Ahmed explained to the audience about the potentials this industry has for engineers and emphasized the importance of exploring these opportunities. Shahid Chishty, being in the industry also explained the requirement for engineers for the Darlington Refurbishment project and other similar projects. He then invited the first speaker Mr. Imtiaz Malek with his brief introduction.

Imtiaz Malek's presentation was full of in depth discussion about the Nuclear Technology and Quality Assurance required for Nuclear Stations. He talked about nuclear power and its future in the world. He also talked about the risk associated with nuclear energy and its safety and how to control it through proper regulatory methods such as licensing and oversight. He emphasized on the need of nuclear power to generate electricity and the opportunities available in this industry. After Imtiaz Malek, Shahid Chishty invited Mr. Richard Barnes with his brief introduction. Richard Barnes is an internationally acclaimed Quality Assurance expert in the Nuclear Industry. Mr. Barnes talked about the quality assurance in the nuclear industry and the job opportunities available in this field.

In the end, Muhammad Akram talked about the topic "It's never too late to learn. Start your new career in Quality Assurance, Welding Inspector or Non-Destructive Inspection (NDE)". He talked about different job markets in which engineers can easily get in with few small courses. During the presentations, refreshment were served, and attendees discussed the opportunities with the presenter. They also offered Zuhr prayer.

To conclude the program, Imran Ahmed, President NEDAC board, gave a special note of thanks and presented the token of thanks to all three presenters. He also appreciated the efforts of Mr. Shahid Chishty in arranging this imperative seminar for NEDAC members and acknowledged the efforts of NEDAC's professional development committee.

NEDAC

NED UNIVERSITY OF ENGINEERING & TECHNOLOGY
KARACHI

TECHNICAL SEMINAR

NEDAC

NED UNIVERSITY OF ENGINEERING & TECHNOLOGY

KARACHI

TECHNICAL SEMINAR

sham-e-ghazal

Ursala Nazar Abbas | Information Secretary

To celebrate the spring, the NEDAC board organized 'Sham-e-Ghazal.' Since it had been a while since the last social event, the Annual Dinner in December, the board members put on their thinking hats and thus a ghazal session was put forward to enjoy a great evening of good food and great company. The 'Sham-e-Ghazal' was held on April 28th, 2017 at Burnhamthorpe Community Centre. The starting time for the function was 7:00 PM, but being a Friday evening and working day the actual event didn't get underway until 8:00 p.m.

It was heartening to see guests arriving by 7:00 p.m. Initially it was a high tea event, but after reconsideration, was changed to a dinner event. The main performer for the night was Mr. Tariq Hameed. Tariq Aziz is a renowned ghazal performer and quite famous in the Canadian audience. Ms. Kurti Shah, a classically trained singer, also performed in the program. The event got under way with food being served at 8:00 p.m. Once everyone was settled in with food, the show started with Ms. Kurti Shah. Ms. Kurti started with popular songs. Her performance lasted for 20 minutes, in which some requests were also made.

Once Ms. Shah's performance was over, there was a recess of 15 minutes, in which tea and dessert were served. The dessert was a combined generosity of Mr. Mohammad Farooq and Mr. Tanvir Zubairi. After a warm-up and instrument testing of five minutes, the magic of Tariq Hameed got under way. Mr. Hameed performed some ghazals in his usual charismatic style. The audience thoroughly enjoyed it. I can attest to the great performance based on the fact that my 6-year-old was dancing to the beats of Ghazal. Tariq Hameed gave a great performance, but what made the inner music lover inside of me happy was when he sang the popular 'In-taizar.' Tea was constantly served throughout the performance. The ghazals were so thoroughly enjoyed by one and all that everyone lost track of time and the show didn't finish until after 12:00 a.m. It was a great event, where everyone enjoyed good food, great company and even greater entertainment in the form of music.

CANADA 150

NEDAC

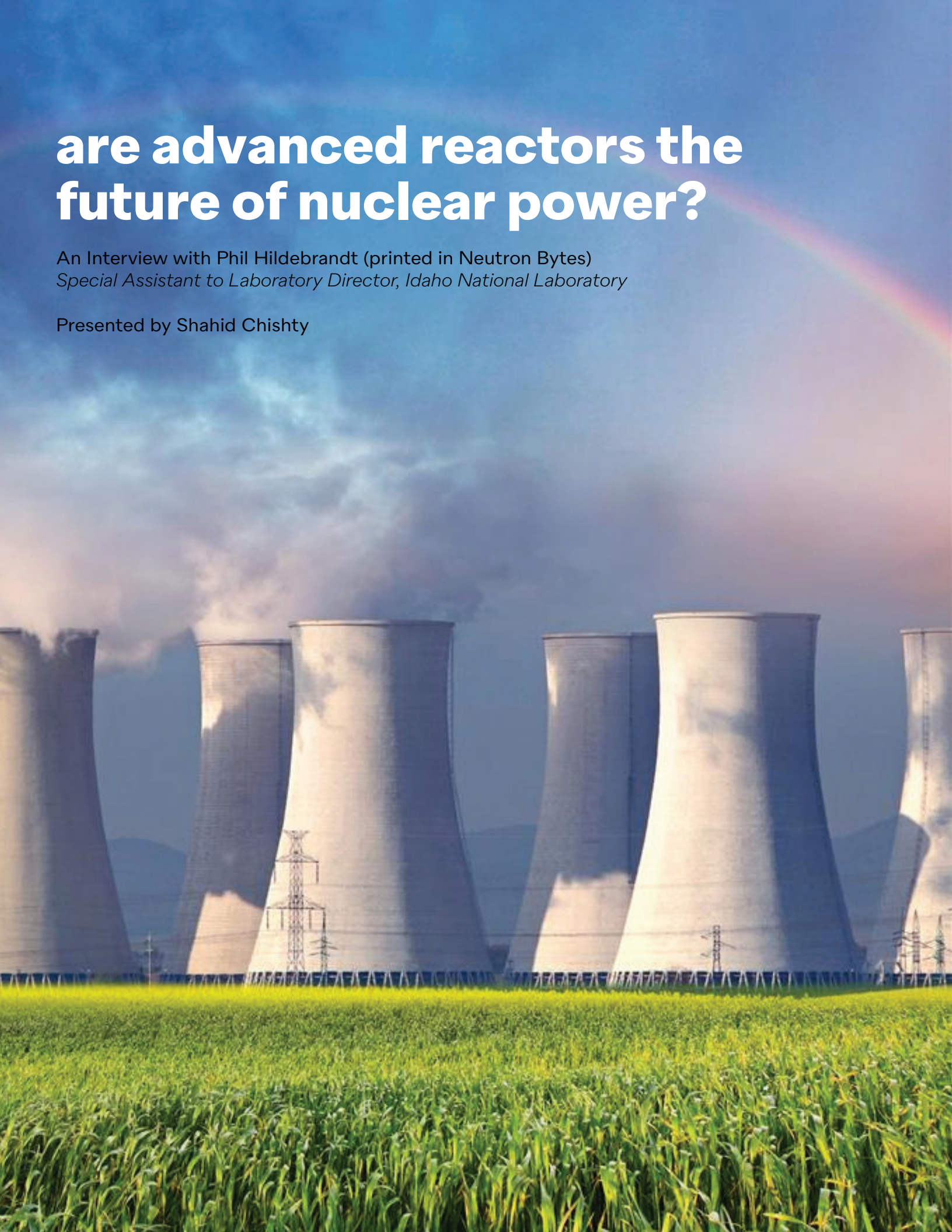
NED UNIVERSITY OF ENGINEERING & TECHNOLOGY
KARACHI

SHAM-E-GHAZAL

are advanced reactors the future of nuclear power?

An Interview with Phil Hildebrandt (printed in Neutron Bytes)
Special Assistant to Laboratory Director, Idaho National Laboratory

Presented by Shahid Chishty



Question 1: What do you see as the key benefits of advanced reactor technologies?

Advanced reactors span the spectrum from adaptations of light water reactor technology for small modular reactor configurations to considerably different reactor technologies with alternative coolants such as gases, molten salts and liquid metals utilizing both "open" and "closed" fuel cycles.

Compared to conventional nuclear reactor technologies, certain advanced reactors offer opportunities for intrinsic safety, improved economics for energy production and extending the use of nuclear energy from primarily electric power generation to the cogeneration of power and process heat for industrial applications.

High-temperature advanced reactor technologies, in particular, can displace the use of fossil fuels currently used for direct firing and production of high-temperature process heat (e.g., as steam and/or gas).

Over 20% of the global energy utilization beyond electric power is in the industrial sector. Nuclear energy cogeneration for industrial use provides the opportunity to be more environmentally responsible through reduction of greenhouse gas emissions and promotes improved stewardship of natural resources by reserving the use of fossil fuels for feedstock.

Question 2: What do you think needs to change in the industry to allow for the commercial deployment of advanced reactors?

Commercialization and deployment of advanced reactor technologies and utilization for cogeneration applications require several changes, including:

- **Revised business model:** The current nuclear energy industry primarily produces electric power. The potential economic and business opportunities of expanding the applications to cogeneration need to be realized.
- **Revised regulatory framework:** In the United States, like in many countries, the regulatory framework has been matured around the widespread use of nuclear reactors utilizing light water reactor technology for power generation. The technical and policy requirements will need to be changed to accommodate advanced nuclear energy technologies and cogeneration applications.
- **Acceptance by energy intensive end-users:** Effective utilization of nuclear cogeneration process heat for industrial applications can be expected to require collocation of nuclear energy facilities with industrial plants (e.g., petrochemical, petroleum and metals refining process plants). Collocation introduces new interactions between regulatory agencies having jurisdiction.

Such collocation practically requires that the safety case for the advanced reactor technology does not pose an unacceptable threat to the non-nuclear process plant investment under all foreseeable conditions.

Question 3: Just how flexible are advanced reactors and how important are the non-electric uses in improving their viability?

Nuclear reactors using conventional technologies are well-understood options for energy production and are acceptably safe for generating electric power with a minimum of environmental impact. Conventional nuclear technologies for electric power generation provide a known business risk — for which there is considerable successful operating, maintenance and licensing experience and for which there is confirmed economic performance.

Advanced reactor technologies offer potential benefits in areas such as improved economics, additional margins of safety, improved utilization of fissionable materials and operating conditions that support cogeneration of process heat for industry. The extent and flexibility in achieving such potential benefits compared to conventional technologies vary by the specific advanced reactor technology.

The opportunity to expand the use of nuclear energy to non-electric applications via concepts such as cogeneration is a central business factor for owner/operators to consider in moving away from conventional technologies to advanced technologies.

Question 4: How feasible is the concept of having a nuclear-renewable hybrid energy system? And what will this mean for the industry?

Determining the overall technical, economic and business model viability of nuclear-renewable hybrid energy systems is a work in progress.

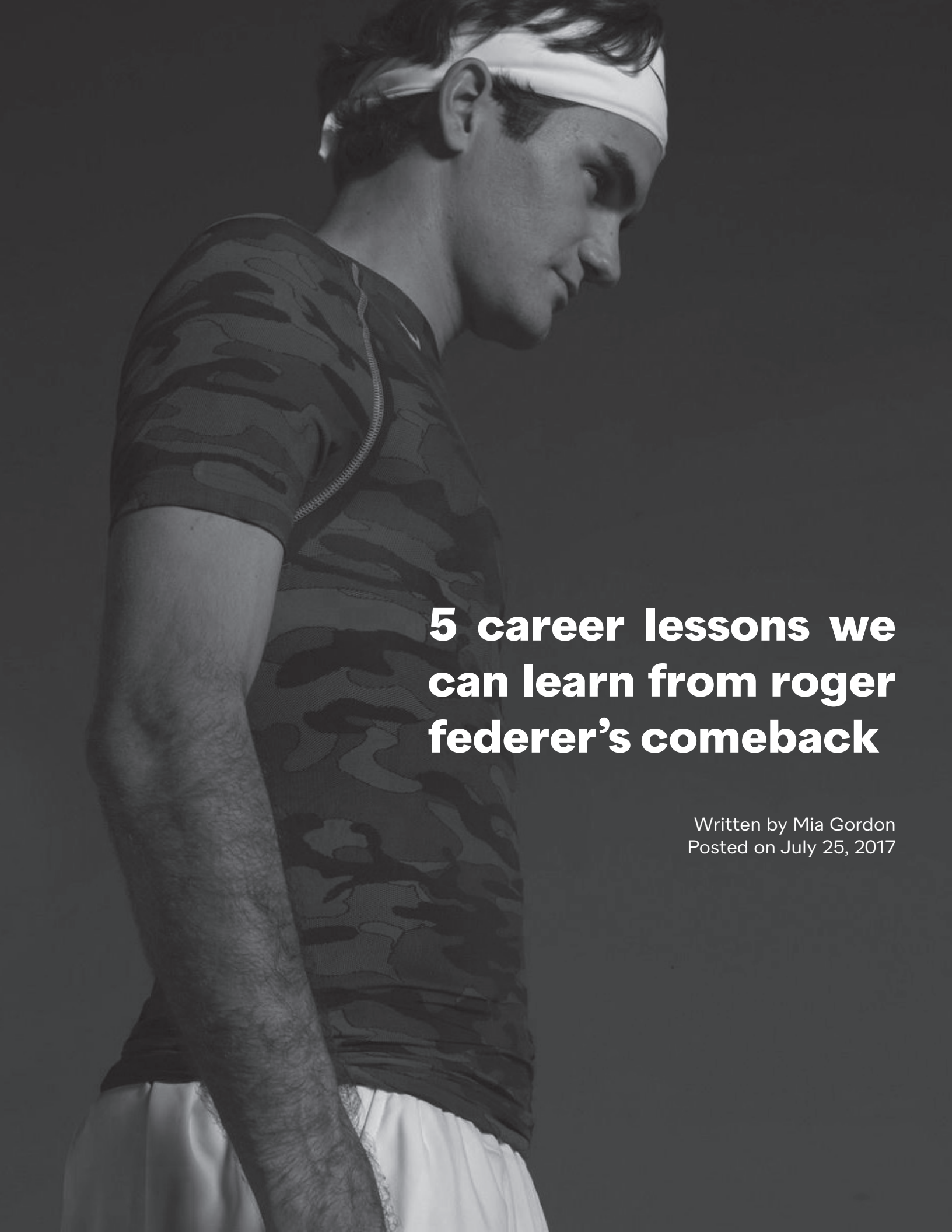
In the United States, for the US Department of Energy the Idaho National Laboratory, the National Renewable Energy Laboratory, and the Oak Ridge National Laboratory are jointly finalizing a preliminary roadmap for component development and systems integration utilizing detailed modeling and analysis of nuclear-renewable hybrid energy systems.

Integrated hybrid energy systems have the potential to help revolutionize energy services at the system level in a manner that optimizes the economics, maximizes overall thermodynamic efficiency, reduces environmental impacts, and provides resources for grid management. However, the relevance in future energy markets is not yet completely understood.

NEDAC ANNUAL PICNIC

JOIN US FOR FOOD, FUN AND TIME WITH FRIENDS!

Saturday, August 26, 2017
Lodhi Farm
12600 Derry Road in Milton



5 career lessons we can learn from roger federer's comeback

Written by Mia Gordon
Posted on July 25, 2017

When Roger Federer hoisted the Wimbledon trophy last week, he not only became the first man to win Wimbledon eight times, he also extended his record to 19 Grand Slam titles. This is par for the course for the Swiss superstar this year; he has so far won two Grand Slam titles and moved up to number three in the world.

It wasn't too long ago, though, that he (and the rest of the world) thought his tennis career was coming to an end. Illness and a nagging knee injury had forced Federer away from the sport for nearly a year, making his 2017 resurgence even more remarkable. As it turns out, there are some things we can learn from the master's recent success. Here are five career lessons from Roger Federer's comeback.

Take care of yourself

After a semi-final loss at the 2016 Wimbledon, Federer decided to take a few months off to nurse his injured knee. During the time off, he focused on taking care of himself, allowing his body to heal properly. He also took the time to honestly re-evaluate his career and ambitions. Did he want to continue? Once he decided there was still a lot of tennis left in him, he redoubled his efforts, practicing and training until he felt he was 100% fit – mentally and physically. Only then was he ready to make his comeback.

"To have had this six-month lay-off I feel rejuvenated, refreshed. Maybe mentally I needed this rest more than I thought. I tried to look at the big picture," Federer told ABC News.

Just like a professional athlete, you too can experience burn out. Whether you are over-stressed at work or just need time to re-evaluate your career, it's important to take a step back every now and

again. Just like Federer, you may find that after some time off, you'll feel rejuvenated and ready for a comeback of your own. Or, you might realize that it's time to start looking for something new.

Change your game

Federer didn't just take time off to recover; he also took time off to give his game a bit of a makeover. After his knee injury, Federer knew he would have to find a slightly different style of play to compete against the likes of Nadal and Djokovic. He worked on being more aggressive with his backhand and return of serve and started to serve and volley even more then he did before his break. This more powerful style of play immediately paid off, creating shorter points that have helped him avoid injury, and helping him beat players that he has struggled against in the past.

Similarly, if you're in a rut at work, maybe you need to start taking a different approach? Just like Federer did with his on-court game, changing your work habits or the way you interact with co-workers can often lead to different results. Be honest with yourself, and try to identify your strengths and weaknesses on the job. Once you have a sense of how you can improve, come up with a game plan and give it a shot.

Have confidence in your abilities

Federer always believed he could come back. At least, that's what he told ESPN. He might not have known that he was going to win Grand Slams again, but his confidence at least allowed him to take such a long leave of absence and come back stronger than ever before. Without that self-belief, he might have simply retired.

Similarly, to be successful in your career, and to make difficult career changes, you need to believe in your abilities. Apart from improving your performance on the job, this can also be a powerful tool for your career development. In fact, according to the Journal of Personality and Social Psychology, those who appeared more confident achieved higher status in social and work environments than their peers.

Surround yourself with a positive support group

Roger Federer might be confident, but he says that he also leaned heavily on friends and family during his break from tennis. He asked his support group if they believed in him, and the answer was always the same: "They said that they thought if you're 100 per cent healthy, and you're prepared, you're eager to play, then anything's possible."

CANADA 150

By surrounding himself with people who believed in him, he could stay on course and see out his rehabilitation and training. You might not be a champion tennis player, but it's still important to surround yourself with a positive support group. Your group of friends, family, and co-workers will directly affect your resilience, determination, and ability to handle stress. The right support group can also help further your career. According to an article in Time, if you surround yourself with positive, hardworking people, those traits will start to rub off on you.

Understand there will be ups and downs

Federer told ESPN that his comeback has been, "a tough road at times. But that is how it's supposed to be." When he first came back, he had success right away by winning the Australian Open. In the very next tournament he played, though, he lost in the second round. Instead of getting down on himself after this stumble, Federer just focused on the next task at hand.

This is an important lesson for just about anyone. Your career isn't going to be all sunshine and rainbows. There will be challenges to work through; there will be failed projects and tough decisions to make. But if you continue to work hard, learn from mistakes, and be willing to accept challenges, you too will find success.

After his injury, Roger Federer could have easily quit tennis as one of the greatest players ever to play the game, but he wasn't ready to say goodbye. Instead, he took the time to rest and recover, tweaked his game to play to his strengths (and changing body), and never stopped believing in himself.

4803 Bloomburg Drive
Mississauga, ON, L5M 7K4

EMAIL | WEBSITE

shahid.chishty@gmail.com
NEDAlumniCanada.org