

GRAD CABLE

The official newsletter of the Texas A&M University at Qatar
Graduate Student Association



UPCOMING DEADLINES

DEC. 8-10, 13

FINAL EXAMINATION PERIOD
FOR FALL 2020

**ALL THE BEST ON YOUR
FINALS AGGIES!**

DEC. 17

QATAR NATIONAL DAY
OBSERVED (OFFICES CLOSED)

DEC. 18

QATAR NATIONAL DAY

DEC. 20-24

SEMESTER BREAK (OFFICES
CLOSED)

DEC. 27

OFFICES REOPEN AFTER
SEMESTER BREAK

Slow Is Smooth and Smooth Is Fast: Easing the Pace in A Fast and Chaotic World

by Midhat Zaidi

We live in a world where everything is moving in a fast pace, where the idea of getting something immediately is revered. We seek places where everything happens quickly. This idea has been, in a way, inculcated in us by many different industries around us trying to meet the demands of the masses like the production of fashion apparel in the shortest time at the expense of the environment and worker livelihood or fast food, where a waiting time shortened to a few minutes comes at the cost of the quality of the food we eat. And then

... there's always the preference of a 2-minute video over a 15 minute one because the longer the video, the quicker the distraction kicks in and we move on to something else. This idea has started making a home into our own personal lives too, where fast work and fast output are the way to go. Whilst getting things done in a shorter amount of time is always better (provided that quality isn't compromised), what it should do is leave us with more time to rest ourselves, more time to spend with ourselves or with others. But instead, we hop on to the next thing, the next task, and we soon find



PHOTO BY MIDHAT ZAIDI

ourselves in a marathon of moving from one *to-do* item to another. Living life 2x the speed, is not the same as watching a lecture at 2x the speed. All of this in service to the demands of a faster paced world, allowing it to intrude into our personal space and leaving us in a space where we are always looking to catch our breath.

Now, with the progression of technology, whatever control we did have over the rate at which life is moving is just getting more and more out of our control, leading to a life that is in several instances more rushed and frantic. It is as if the braking system of our internal vehicle is broken, slowly leading us towards an unbalanced life. Unfortunately, this has now become the norm and the incorporation of the fast-paced life into our own has become a metric of how well one's doing in life because anything slow has no place in this world. But the truth is that whilst rushing may make us feel so productive, it is also taking from us. The side-effects eventually catch up with you, affecting your health, work-life balance, and overall quality of life, thus bringing in a lack of

focus in life, lower attention span and greater worries and anxiety. And before we know it, our time is up...

The good news is that this can be reversed and restored with *slowing down* and allowing time for recovery. There really is peace and beauty in slowing down. It is when bits and pieces of our work and personal tasks aren't mashed together in a blur as we rush in and out but rather there is time put in to savour parts of those bits we call life.

Slowing down can improve our decision making and planning, make communicating better and even keep stress at bay. If we find ourselves in an unstoppable race, then we must break the routine and intentionally slow down. With a slower pace and no rushing in sight, we are calmer and more composed, we are more observant, and it becomes easier to gain clarity and take better decisions. It also leaves us with some time to deaden the clamouring noise of the world around us for a bit as we allow time for self-reflection.

With a frequent dose of a slowed-down pace as a gift to ourselves we can eventually find ourselves regaining the control that we had lost to this viciously demanding culture that the fast-paced world had set. At the end of the day, slowing down looks differently for everyone but the idea of

.... where one can start can be a commonplace for all of us.

It will work out for everyone so long as we remember to slow down so that time doesn't run out before we do.

Technology of Tomorrow: SMR Reactors

by Arshad Mohamed Ali

With the looming and ever-increasing threat of climate change, the need to diversify to cleaner energy sources has not been clearer. One such novel technology that can help in this fight is the small modular reactor (SMR). This reactor goes against the 'Bigger is Better' proverb. Rather its advantages arise from its small size and modular nature: these reactors are significantly smaller than conventional reactors. As such the parts of an SMR can be prefabricated within a central factory and be assembled either within the factory or on site. Furthermore, since these reactors are manufactured within a factory, the economy of scale allows the reactor to be significantly cheaper than conventional reactors. Similarly, the modular nature improves both the efficiency and quality of construction.

In addition to being more economic, these reactors are also safer. Due to their lower power output and smaller size, they possess a smaller radioactive inventory which means a smaller source term in case of an accident. Smaller power output and compact design allows for use of passive systems such as passive cooling which improve the safety of the reactors. These reactors can be placed underground which significantly reduces the danger from both natural and man-made disasters and threats.



PHOTO BY ARSHAD MOHAMED ALI

SMRs can be used to provide electricity to areas already connected to the grid but also remote areas away from the grid. Their smaller size means they have lesser siting requirement compared to traditional plants. Thus, it can also be used in various energy-intensive applications such as chemical industries and desalination needs.

However, it is not without disadvantages. The economy of scale also happens to be the main disadvantage of this technology. Since it is manufactured at a central factory, it requires a large number of SMR orders to be profitable which may be difficult to obtain, given the current attitude around nuclear energy in many countries. There are also some concerns that the final cost per kW may be the same for SMRs and conventional reactors.

Nonetheless, there is a renewed interest in SMR technology due to its purported economic benefits, size, and safety improvements. Several countries around the world have shown interest and are looking to support SMR technology including USA, UK, Canada, China, etc. Within our region, KSA has shown interest in building SMART reactors from South Korea (an SMR model) to use for desalination. Only time will tell if SMR reactors will become a mainstay within the nuclear energy scene and if it will expand the share of nuclear energy within the worldwide energy matrix. Nonetheless, it is exciting to see what the technology of tomorrow holds for us.

References

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World Nuclear Association. (2020, October). Small Nuclear Power Reactors. Retrieved from <https://www.world-nuclear.org/information-library/nuclear-fuel-cycle/nuclear-power-reactors/small-nuclear-power-reactors.aspx>

ADDITIONAL DEADLINES

UPCOMING

DEC. 3 - LAST DAY FOR FACE-TO-FACE MEETINGS TO BE HELD. ALL ASSIGNMENTS AND PROJECTS THAT REQUIRE FACE-TO-FACE INTERACTION MUST BE COMPLETED AT THIS TIME. THE ONLY REMAINING GRADED ACTIVITIES THAT ARE PERMISSIBLE ARE THOSE WHICH MAY BE ACCOMPLISHED REMOTELY AND FINAL EXAMS

DEC. 6 - LAST DAY OF FALL SEMESTER CLASSES. ALL COURSES TO BE HELD ONLINE/REMOTE ONLY. REDEFINED DAY - STUDENTS ATTEND THEIR THURSDAY CLASSES PURSUANT TO STUDENT RULE 8.3

DEC. 7 - READING DAY (NO CLASSES OR FINALS) LAST DAY FOR ALL STUDENTS TO DROP COURSES WITH NO ACADEMIC PENALTY (Q-DROP), 5:00 P.M

DEC. 14 - FINAL GRADES DUE FOR ALL STUDENTS BY 6:00PM, OFFICE OF RECORDS

FOR ALL DECEMBER 2020 DEGREE CANDIDATES

DEC. 10 - ACADEMIC DEGREE EVALUATIONS CONDUCTED AFTER 6:00 P.M.

DEC. 11 - ACADEMIC DEGREE EVALUATION RESULTS AVAILABLE.