

Collaboration + Research = Global Solutions



Seshadri Ramkumar

Professor, Texas Tech
University, USA



quite a paradox-physical isolation and global collaboration. In the present COVID-19 times, as the second wave of the pandemic is in full swing in India, it is very important that recommended safety measures are followed, such as physical isolation. While this protocol must be strictly adhered to, we need local, national, and international collaboration and support to conquer the virus.

To solve global issues such as pandemics, wildfires, climate change and inequity in resources distribution, concerted efforts are needed by nations of the world. Recently, United States' Vice President Kamala Harris addressed a United

Nations' meeting highlighting the need to work together and plan for countering future major catastrophes. Vice President Harris made a clarion call to focus on innovation and sharing life saving resources. *"We need a system that can produce more and stage them around the world,"* stated Harris.

Global Citizen Scholars

Given that the world has become flat, awareness on global events and happenings are needed. Academic institutions should metamorphose from being just a teaching academy to be a cradle of growing global citizens. Next generation students need to be global citizen scholars and have to think globally while not ignoring their local connections. Citizens need to have greater skill sets apart from being experts in a particular field. Higher education institutions in the past few years have been insisting on multidisciplinary collaborations as well study abroad programs. Particularly in engineering programs, to make engineers garner practical skills and multifaceted interpersonal capabilities, some institutions require mandatory study abroad as part of degree requirements, as is the case in Texas Tech University.

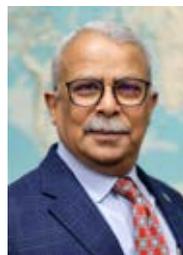
"International collaboration and partnerships at institutions of higher education are a key to internationalization of campuses. International collaborations allow to pool talents and strengths across the world to capitalize on existing intellectual capacity and grow our scholarly abilities for the good of humanity," stated Dr. Sukant Misra, Vice Provost for International Affairs at Texas Tech University.

Vaccine Development

In the present COVID-19 context, experts in multidisciplinary fields must work to find solutions. Additionally, policy makers, administrations and public must work in sync in a timely



Kamala Harris



Dr. Sukant Misra



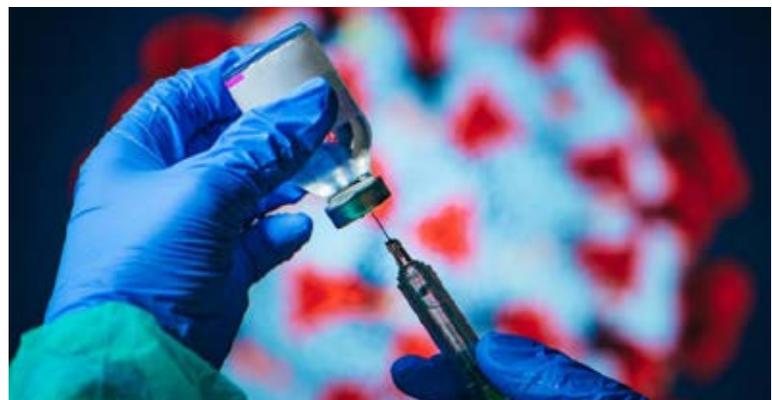
Pascal Soriot

fashion to solve problems, again emphasizing collaboration in greater proportion. The development of efficient vaccines in a record time has been possible due to collaborations across country borders such as the partnership between the United

States based Pfizer and Germany based BioNTech. In a similar vein, the collaboration between UK-based Oxford University and AstraZeneca resulted in another vaccine, which is manufactured in India. Such collaborations enable to bring together expertise and skills of each entity in the partnership to provide a timely solution. "Our hope is that, by joining forces, we can accelerate the globalization of a vaccine to combat the virus and protect people from the deadliest pandemic in a generation," stated Pascal Soriot, Chief Executive Officer of AstraZeneca. "The common nature of today's most pressing global challenges explains why I believe that international research collaboration is more important today than at any time in the past. I believe it is important for researchers from around the world to engage in collaborations that enlighten us about the social, economic, and cultural connections and barriers to effective international cooperation," stated Professor Joseph Heppert, Vice President for Research and Innovation at Texas Tech University.

Expedite Problem Solving

Even before the pandemic, global academic and government agencies have realized the importance of





global level partnerships in tackling issues such as global poverty, protection of intellectual property and global warming. Global initiatives such as Paris Agreement to curb gas emissions by participating countries is a laudable effort. Having rejoined the Paris Agreement, just this past week, President Joseph Biden convened a global climate summit with 40 world leaders and pledged to reduce emissions by 50-52% by 2030 compared to the 2005 levels.

“International collaboration is critical if we wish to address significant challenges. These challenges are not restricted to a particular group or society. Tapping into international collaboration will allow a synergy to be created in tackling big issues, hence expediting the problem-solving process. In the context of university research environment, the added benefit is the enhanced research training of students. Through international collaborations, students are exposed to thoughts and expertise that may not be readily available in a local environment,” stated Professor Xungai Wang, Pro Vice-Chancellor, Deakin University, Australia.

It will be relevant to provide examples on how collaboration among stakeholders enables to solve problems. After over a decade of investments in terms of knowledge sharing and resource allocation in the technical textiles sector by the Government of India,



Prof. Joseph Heppert



Professor Xungai Wang



Professor Parikshit Goswami

which this scribe had the opportunity to be involved directly with the Indian Government on the knowledge transfer side, India is capable of developing PPE to combat the pandemic. At the peak of COVID-19, Indian private sector worked with the Ministry of Textiles, to make India self-reliant in personnel protective equipment such as face masks and protective overalls, which are critical for life saving. Stressing the importance of global linkages in these advanced manufacturing fields, Professor Parikshit Goswami of the University of Huddersfield, England, opined, “International trade and R&D collaborations are essential to the prosperity of the nations. Stronger international links with key strategic partners will support business growth. Textile supply chains are global and diversified. Companies operating in this sector have a global footprint and are part of international supply chains, therefore, it is in every stakeholders’ interest to develop these links.”

Powerful Catalysts

Local and international collaborations between academia, research organizations and industry have positive economic outcome with the translation of research ideas into commercial reality. In fact, major research Universities in advanced nations are emphasizing more on this aspect as way of job creation and economic growth. Innovation hubs have sprung up in engineering institutes such as the Indian Institute of Technology-Chennai, to name a few. Dr. Joseph Heppert when discussing about international linkages stated, “International university research partnerships can be a powerful catalyst for building community resilience, global health and environmental quality.”

It is becoming abundantly clear that greater challenges require bold steps to provide solutions. Study abroad, global research exchanges such as Fulbright programs, have to be utilized, if opportunity arises. Indian sastra text says, “*Vasudha Eva Kutumbhakam,*” showcasing the importance of global collectiveness. How apt this saying is in the present day and age!

Paris Climate Agreement Comes Into Effect

Top 10 CO2 emitters worldwide and status of the Paris Agreement

