



# IUT INTERNATIONAL E-NEWSLETTER

A window to international activities of IUT

Isfahan University of Technology



Seven<sup>th</sup> Issue: May 2020

COVID-19

IUT International E- Newsletter

*IUT*

*SMART, SAFE &*

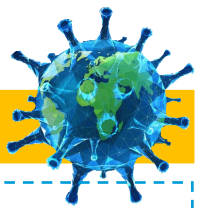
*STEP BY STEP*

**REOPENING**

**Our empty campus is eagerly waiting for the hustle and bustle to start again!**



Photo by: Reza Mirmohammadi Maybodi



**HOW TO PREPARE FOR THE REOPENING? HOW TO TRANSITION TOWARDS THE NEW NORMAL IN HIGHER EDUCATION?  
RECOMMENDED BY UNESCO**

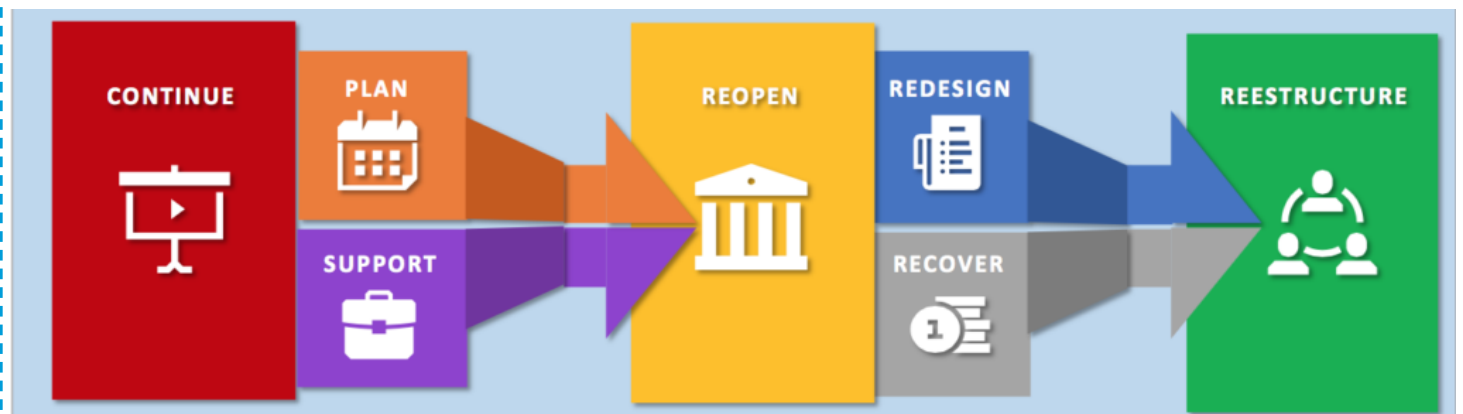
The UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC) proposed a road map for emerging from the crisis and preparing for the **reopening** of HEIs, while guaranteeing the equal right of all to education, with following phases of transition process:

**The first phase:** **a)** the transition from teaching continuity to reopening focuses on providing support to students and teachers to enable pedagogical continuity with quality and equity **b)** planning the face-to-face reopening of operations taking on board health, organizational, pedagogical and financial issues, and ensures continuity and fairness in training and compliance with protocols.

**The second phase:** **a)** marking the transition from reopening to restructuring, support learning among disadvantaged students, **b)** transferring of curricular content to digital formats. Some strategies include individualized tutoring; small learning groups for student leveling in critical subjects given their instrumental nature; and summer (or winter) schools offering make-up seminars.

**The third phase:** **a)** occurring parallel to the recovery process, **b)** investing in technologies, teaching resources and supports made available to all to improve the quality of face-to-face teaching and promoting hybrid methodologies through the redesign of teaching and learning processes that combine the best of face-to-face with the potential of technologies.

«HEIs will have lost a great opportunity if they do not pause for internal reflection, with the participation of students and teachers, on the lessons learned during the crisis, on the teaching and learning processes.» <http://www.iesalc.unesco.org/>





## Post-COVID-19 Era; A New Opportunity for International Scientific Cooperation



The 10<sup>th</sup> National Symposium of International Deputies and Directors of Universities and Educational & Research Centers was virtually held on May 18, 2020 with the presence of H.E. Minister **Dr. Gholami**, the Minister of Science, Research and Technology, the Acting Minister for International Affairs, **Dr. Salar Amoli**, the presidents of some universities, research institutes, and science & technology parks of the country, including the IUT President, **Dr. S. Mehdi Abtahi**, as well as the international deputies and Directors. **Dr. Mohammad Javad Omid**, the Acting President of the University for International Affairs and Technology Infrastructures, and **Dr. Sima Fakhran**, Director of the International Scientific Cooperation Center also attended this event. The main topic of the meeting was about presenting the performance of several universities and research institutes and providing solutions for international scientific collaboration in the post-Corona era. **The President of Isfahan University of Technology, Dr. S. Mehdi Abtahi**, who was invited by Dr. Salar Amoli, attended the meeting and delivered a speech.

**The H.E. Minister, Dr. Gholami**, pointed to the importance of retaining foreign students and said: "By virtual education, the vice-presidency for education should maintain this capacity through planning to expand and support virtual education." **Dr. Abtahi** stated that "during the Corona Crisis, universities dealt with the needs of society very well and realized that meeting these needs should be of paramount importance. The developed countries around the world are not independent of the help of the developing countries, and all of them need each other's help during this time, and also universities should apply joint training networks."

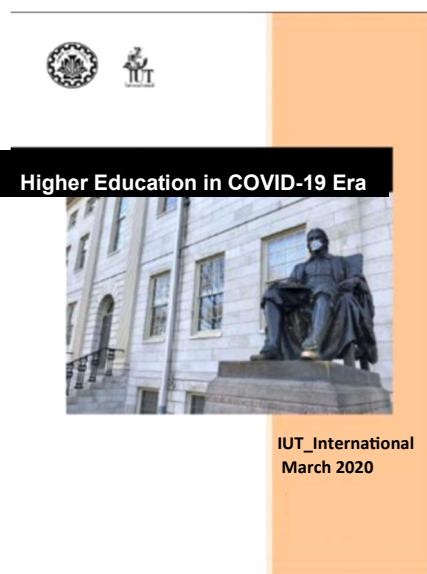
## IUT International Reports on World's Higher Education and Exams during COVID-19

Corona's pandemic has shut down universities in 188 countries and caused serious changes in their higher education system. According to UNESCO, more than 1.5 billion students (more than 91% of the world's students) have been affected by the corona pandemic, and their education system has undergone serious changes. Changes that have been made governmentally, publicly, or by universities and educational institutions.

In order to have and benefit from the measures taken by universities worldwide, IUT International Scientific Cooperation Center has compiled a brief report, in Persian, which includes a summary of the actions and policies of various universities to deal with the new conditions. To see the full report please visit:

<https://iscoweb.iut.ac.ir/fa/node/677>

#IUTfightcovid19



A report on conducting exams during COVID-19 in different universities around the world along with introducing appropriate platforms was prepared by IUT International.

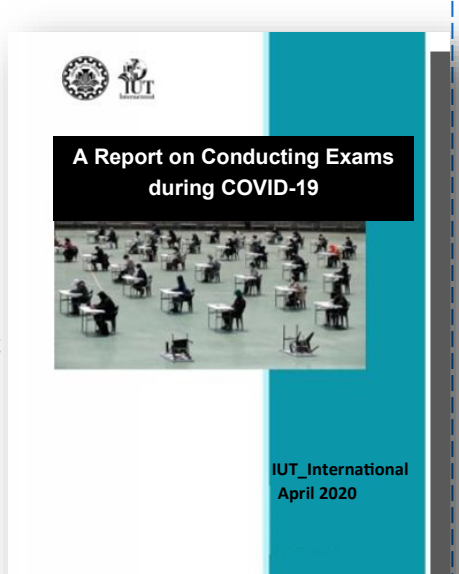
This report, which is the result of a study on 18 world-wide universities, deals with measures and policies on how to conduct exams and evaluate final grades. The report begins with a review on the software and tools that these universities have used to conduct exams. Then, it goes on with introducing appropriate platforms for this purpose.

This report is prepared in Persian and distributed to all Iranian Universities.

To see the full report please visit:

<https://iscoweb.iut.ac.ir/fa/node/713>

#IUTfightcovid19



## IUT Awards and Honors:

### IUT AMONG THE TOP ASIAN UNIVERSITY RANKING 2020

In the latest academic rankings' results published by Times Higher Education for 2020, Isfahan University of Technology (IUT) was ranked 130<sup>h</sup> in the Asian University Ranking.

It should be noticed that the Times Higher Education ranking system is one of the most reliable ranking systems for the world universities.



### IUT IS RANKED IN TOP 3.6% OUT OF TWENTY THREE THOUSAND UNVIERSITIES WORLDWIDE

**According to the Center for World University Rankings (CWUR), Isfahan University of Technology is ranked in the top 3.6% out of twenty thousand universities worldwide.**

Based on CWUR report, Isfahan University of Technology, with the overall score of 72.3, is ranked 707 among 23000 world universities, in 2020.

The Center for World University Rankings (CWUR) publishes the largest academic rankings of global universities.

**About the methodology:** CWUR uses seven objective and robust indicators to rank the world's universities:

1) **Quality of education**, measured by the number of a university's alumni who have won major academic distinctions relative to the university's size (25%)

2) **Alumni employment**, measured by the number of a university's alumni who have held top executive positions at the world's largest companies relative to the university's size (25%)

3) **Quality of Faculty**, measured by the number of faculty members who have won major academic distinctions (10%)

4) **Research performance:**

i) **Research output**, measured by the total number of research articles (10%)

ii) **High-quality publications**, measured by the number of research articles appearing in top-tier journals (10%)

iii) **Influence**, measured by the number of research articles appearing in highly-influential journals (10%)

iv) **Citations**, measured by the number of highly-cited research articles (10%)



The Center for World University Rankings (CWUR) is a leading consulting organization providing policy advice, strategic insights, and consulting services to governments and universities to improve educational and research outcomes. CWUR publishes authoritative global university rankings, known for objectivity, transparency, and consistency, which are trusted by students, academics, university administrators, and governments from around the world. In this year 38 Iranian University were ranked among CWUR list of selected universities.

### Some of the high Ranked Iranian Universities , According to CWUR 2020

543) University of Tehran [Iran]

608) Sharif University of Technology [Iran]

**707) Isfahan University of Technology [Iran]**

759) Amirkabir University of Technology [Iran]

799) Tarbiat Modares University [Iran]

887) Iran University of Science and Technology [Iran]

949) Shiraz University [Iran]

965) Shahid Beheshti University of Medical Sciences [Iran]

986) Ferdowsi University of Mashhad [Iran]

992) University of Tabriz [Iran]

1106) Shahid Beheshti University [Iran]

1224) K. N. Toosi University of Technology [Iran]

1305) Mashhad University of Medical Sciences [Iran]

1319) Isfahan University of Medical Sciences [Iran]

1374) Iran University of Medical Sciences [Iran]

1378) University of Isfahan [Iran]

1383) Babol Noshirvani University of Technology [Iran]

## IUT Awards and Honors:

### Announcement of the results of the Bridging Grant 2020



The results of the selected research projects in the framework of Bridging Grant for the year 2020 are announced.

Bridging Grant, following the Mobility Grant and the Seed Money Grant, is the third co-funding instrument that has been declared for supporting joint research activities among Iranian and Swiss Universities. Swiss Desk (the Iranian Leading House for Science and Technology Cooperation with Switzerland), together with ZHAW (the Swiss Leading House of South Asia and Iran), defined these instruments jointly to facilitate and support joint scientific activities between the universities and research institutes of Iran and Switzerland. Bridging grants offer the possibility to continue joint researches between Iranian and Swiss researchers while they are preparing a grant application for a full joint research project e.g., through the Swiss National

Science Foundation (SNSF), EU funding, or any other national or regional funding body.

According to the ZHAW report, a total number of 14 projects have been selected for receiving Bridging Grant in 2020 from which ten research projects will be co-funded by Iranian and Swiss Universities. Five projects will be co-funded by the universities of the Iranian Ministry of Science, Research, and Technology (MSRT), and five projects will be co-funded by the universities of the Iranian Ministry of Health and Medical Education (MOHME). The MSRT research projects are from **Tarbiat Modarres University, Isfahan University of Technology, Sharif University of Technology (two projects), and the University of Isfahan**. For further information and details of projects please visit: <https://iscoweb.iut.ac.ir/en/node/690>

Zürcher Hochschule  
für Angewandte Wissenschaften



## IUT Winner of the Bridging Grant 2020



**Dr. Hossein Ahmadvand**, from the faculty of Physics at Isfahan University of Technology, won a grant for the research project titled "**Multifunctional magnetoelectric materials: The case of K-olivine-structured orthophosphate,  $K_1-xLi_xNiPO_4$** ".

Swiss Desk takes this opportunity to congratulate **Dr. Ahmadvand** and other winners of Bridging Grant. #Swiss\_Desk



## Appreciation Letter for the IUT Swiss Desk Activities



**Dr. Salar Amoli**, the Acting Minister of Science for International Affairs, expressed his appreciation to the President of IUT, **Dr. Abtahi**, for the precious and efficient activities on planning, performing and announcing joint research projects carried out by the IUT Swiss Desk – the leading house for Iran-Switzerland at IUT in collaboration with both Iranian and Swiss universities.



Swiss Embassy Iran @SwissEmba...

When Swiss + Iranian scientific excellence meet: 11 out of 14 bridging grants offered by the Swiss Leading House South Asia + #Iran @ZHAW have been awarded to Swiss-Iranian research projects in the medical + non-medical field. Congratulation to all winners!







## Faculty of Chemical Engineering

In correspondence with SPE (Society of Petroleum Engineering) student chapter of Isfahan University of Technology, the vice-presidency for research affairs at the **Faculty of Chemical Engineering**, presented an online “Software Training Course”.

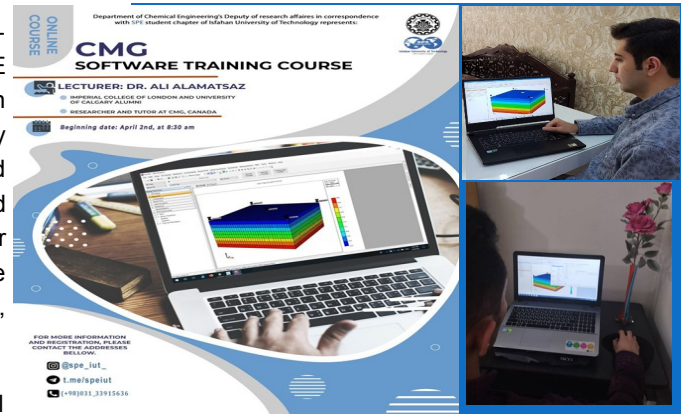
**Our story:** From the beginning, as a committee within the American Institute of Mining Engineers (AIME) since the early 1900s, SPE has grown into an independent, nonprofit global society with more than 153,000 members in 143 countries. A wider scope of our SPE history includes managing key industry resources such as OnePetro and PetroWiki, as well as publishing magazines, books and peer-reviewed journals. We host more than 100 conferences, workshops, and other events each year around the world. Our community of members share knowledge, connect with others in their disciplines and local chapters, and also support and recognize member achievements in industry.

**Our mission:** To collect, disseminate, and exchange technical knowledge concerning exploration, development and production of oil and gas resources and the related technologies for the public benefit; and to provide opportunities for professionals to enhance their technical and professional competence.

**Our vision:** To advance the oil and gas community's ability to meet the world's energy demands in a safe, environmentally responsible, and sustainable manner.

**About Iranian SPE:** SPE Iran Section was established in 2001 and has around 4000 members in Iran. In order to promote knowledge of the members, the SPE activities include: holding seminars, short courses, technical groups, etc. SPE-Iran website aims to provide the most comprehensive information about Petroleum engineering, including news, seminars and work shops, archive, and details of student chapters programs and the program for young E & P (Engineering & Petroleum) professionals in Iran.

**About SPE Isfahan University of Technology:** The student branch of Isfahan University of Technology started its work in April 2019 and has held some programs such as a conference on oil engineering familiarity, and specialized software courses such as cmg, which is currently being implemented by **Dr. Ali Alamatsaz**.



## Faculty of Civil Engineering

The Faculty of Civil Engineering presented a webinar in collaboration with MIT on:

“The role of microbial ecological interactions on polymer degradation in natural environments” by **Dr. Ali Ebrahimi** from Massachusetts Institute of Technology (MIT) on May 20, 2020.



**Dr. Milad Aminzadeh** — the faculty Internationalization Coordinator — organized this webinar.

The role of microbial ecological interactions on polymer degradation in the natural environments



**Ali Ebrahimi**  
Department of Civil and Environmental Engineering  
Cambridge, MA





Faculty of Mechanical Engineering

**A Project on Designing and Manufacturing of an Acoustofluidic–molecular Kit for Rapid Detection of COVID-19 Virus**

In most diagnostic methods, detection strategy involves the capture and separation of the target molecule (whole cells, virus particles, proteins, ...) from a heterogeneous mixture in blood or other body fluids. Isolation of the target analyte can be based on the size or volume, density, electrical properties or surface characteristics, using methods such as filtration, centrifugation, dielectrophoresis affinity binding or acoustofluidic.

Acoustofluidic devices work by acoustic waves. These waves generate a second order force, acoustic radiation force, when interfere with reflected wave from surface of a suspended particle in fluid cavity. This force moves cells or viruses towards node or anti-node based on contrast factor between particles and host fluid. As known so far, COVID-19 virus has a diameter in order of 100 nanometer which is suspended in a mixture of billions of other cells and particles. To detect this virus, it would be much better to first separate them from others. Acoustofluidics has proven its ability to separate nanoparticles such as exosomes from blood. Hence, acoustofluidic devices can be used for separation and detection of COVID-19 viruses. In this project, we aim to design and manufacture an acoustofluidic microchannel for separating COVID-19 virus by bulk acoustic waves and then detecting them in the next steps based on an immune-fluorescent technique which relies on the fluorescent-labeled antibodies specific for the spike protein of COVID-19 virus.

In order to reach the optimum design, modal analysis will be used. By this method, resonance frequencies, associated mode shapes and frequency response of the system can be found. As cost, time and simplicity are of the most important purposes following in manufacturing of microchannels, the fabrication technique will be applied for making acoustic microchannels will be machining.

The feasibility studies will be done with some pretests on some nanoparticles by our lab’s present acoustofluidic microchannel. In these tests, nanoparticles will be separated from micron-sized particles. This will help to find challenges in manipulation of nano-sized particles. These challenges will be meet in the design of final microchannel which reduces time and speeds up the research process. Materials and manufacturing techniques used in making acoustofluidic devices are aimed to be cheap and easily-available. Metallic and polymeric materials will be used for making devices and conventional machining will be selected as main manufacturing process. **Dr. Peiman Mosaddegh**, an associate professor of the faculty of Mechanical Engineering is the designer of an Acoustofluidic–molecular Kit for Rapid Detection of the COVID—19 Virus.



**Research Institute of Nanotechnology and Advanced Materials**

***Production and Commercialization of Nanofiber Electrospinning Machine for Production of N95 Masks at IUT***

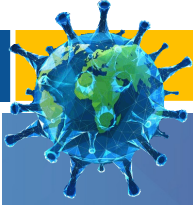


After designing, manufacturing and commercializing nanofibers for industrial electrospinning devices, researchers at Isfahan University of Technology (IUT) have launched a production line of N95 standard masks with a capacity of more than 15,000 masks per day.

**Dr. Alireza Allafchian**, faculty member of the Research Institute of Nanotechnology and Advanced Materials at Isfahan University of Technology, mentioned that this device was designed and manufactured before the outbreak of the Coronavirus at Isfahan University of Technology, and since the outbreak, it has been used with full capacity to produce Nano fabrics for N95 masks.



Given the strategic importance and increasing use of nanotechnology, this machine can be used in production of medical products such as bandages and sterile gases, cellulose industries such as waterproof paper and anti-bacterial tissues, as well as other applied industries like car, water, and air filters. Nanofibers electrospinning industrial machine has been manufactured by researchers of Isfahan University of Technology in Ahoura Sanat Nanozist Company (a Spin-off of the university) and with the cooperation of **Research Institute of Nanotechnology and Advanced Materials** in IUT.



## Call for Supporting

## Iranian & International Students

### Supporting B.Sc., M.Sc. & Ph.D. Students

Due to the COVID-19 pandemic, Isfahan University of Technology (IUT) which is highly ranked among both Iranian and international universities, admits and supports the international and Iranian students studying abroad.

Supports are in forms of:

- ◆ Admission as guest students
- ◆ Passing credits after ensuring coordination with the source university



Although COVID-19 crisis has impeded the international students' progress, IUT has made it possible to resume their studies in Iran.

**#IUTfightcovid19**

Further information:

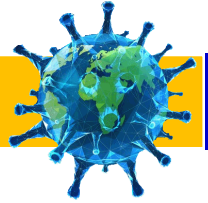
 [iscoweb.iut.ac.ir](http://iscoweb.iut.ac.ir)

 (+98)3392505-6 or: [international@iut.ac.ir](mailto:international@iut.ac.ir)

 IUT\_International



## Opportunities:



### Alexander Von Humboldt Research Fellowships 2021 for Postdoctoral Researchers

\* Scientists and scholars from all disciplines and countries may apply and applications can be submitted at any time.

<https://iscoweb.iut.ac.ir/en/node/720>



### Call for Multidisciplinary Research into Epidemics and Pandemics in Response to the Outbreak of SARS-CoV

DFG, German Research Foundation is issuing a call for a multidisciplinary funding initiative.

Funding is available for projects addressing the prevention, early detection, containment and investigation of the causes, impacts and management of epidemics and pandemics, taking the example of SARS-CoV-2 and other microorganisms and viruses that are pathogenic to humans.

<https://iscoweb.iut.ac.ir/en/node/681>



### Call for Joining

### Jundishapur Research Program, 2020

<https://iscoweb.iut.ac.ir/en/node/676>



### The 5<sup>th</sup> Call of the Silk Road Science Fund for Joint Projects

According to the 5<sup>th</sup> call, research activities in the form of "Joint Research and Development Projects" and "Joint Workshops" will be supported by the Silk Road Science Fund.

<https://iscoweb.iut.ac.ir/en/node/737>

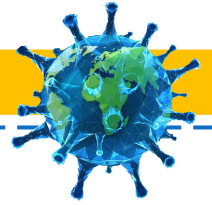


### Call of the Volkswagen Foundation in Germany for Scientific Works and Re- search Related to the COVID-19 Crisis

Researchers can apply for a credit up to 120,000 euros for 18 months.

Deadline for submission of research projects: June 4, 2020

<https://iscoweb.iut.ac.ir/en/node/736>



Universities across the globe are implementing initiatives to reduce their carbon footprint and improve their environmental sustainability, but is it enough for students?

To explore how the higher education sector is performing when it comes to students' environmental expectations, we have adopted a part of the QS Environmental Concerns Survey in August 2019 as follows:

### What five environmental activities are most important for universities to engage in?

Prospective international students were asked to choose the top five activities that universities should engage in to improve their environmental friendliness. The top five were:

1. Increasing funding for research into sustainable initiatives
2. Reducing the amount of single-use plastics they use
3. Reducing the amount of waste which goes to landfill
4. Increasing how much energy comes from renewable sources
5. Installing energy efficient lighting

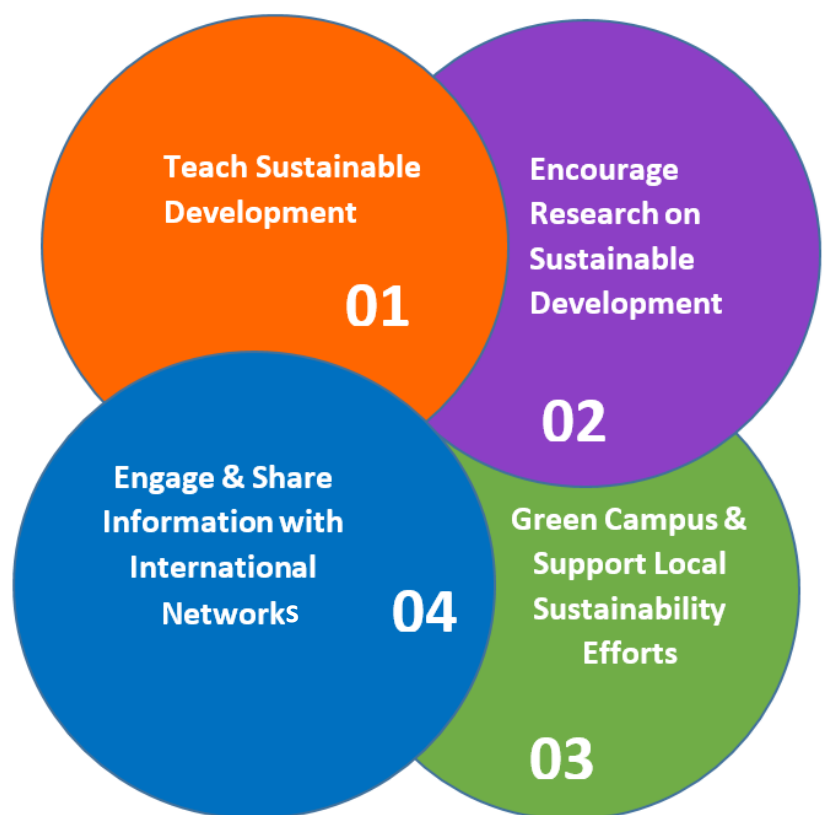
This demonstrates the actionable steps that universities could take to meet student expectations and boost their sustainability efforts.

To contrast, these were the other environmentally friendly activities that students could choose, ranked in order of popularity:

6. Ensuring all food served on campus is from sustainable sources
7. Decreasing the amount of paper and printer ink they use
8. Reducing their carbon footprint
9. Investing in ethical initiatives
10. Increasing the amount of water they use from recycled sources
11. Improving heating insulating in university buildings
12. Investing in carbon-offsetting initiatives
13. Restricting the amount of air miles traveled by university staff

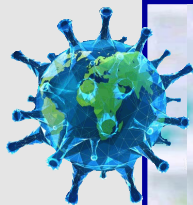


#IUTfightcovid19



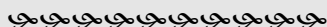
Adopted from: [www.qs.com](http://www.qs.com)

Universities map toward Sustainability



Not all soldiers  
carry guns  
to save  
their country...

Some carry  
A Stethoscope!



#### 15 Qualities of A Great Team Member

**11. Detail-Oriented:** When something is out of place, you can depend on detail-oriented employees to notice. This is very helpful in terms of problem-solving, particularly if a creative solution is required. Since they are great at reading body language and determining people's intentions, these individuals are likely to respect people's boundaries and know when it's appropriate to engage someone. Being detail-oriented not only results in a **higher quality of work; it also entails better social skills.**



**12. Autonomous:** Good managers want dependable employees who they can assign a task to and know that it'll be completed by the set deadline. In order to perform better, many workers are seeking out remote working arrangements where they can function autonomously. In a 2013 workplace survey, it was found that employees who have a choice over when, where and how to work achieve higher levels of satisfaction, innovation, and job performance. Companies don't benefit from hiring employees that need constant coddling. In the adult world, employees who take the initiative and work autonomously produce the best results.

**13. Adaptable:** For those who are calm under pressure and mature enough to prioritize the organization's goals over their own – this makes them invaluable employees. While flexible working practices are highly recommended to get the most out of employees, during urgent situations it's important that the employees reciprocate. This might require working extra hours or grinding especially hard to get a project completed on time. Adaptability also means being flexible to the working habits and personalities of your colleagues. If you're collaborating with teammates who prefer to work remotely, you may need to learn how to use tools like Slack for video conferencing and Asana for managing projects.

**14. Understands the Industry:** Technical competency makes you a valuable asset to a team, but an understanding of the wider industry makes you irreplaceable. Keeping tabs on the industry shouldn't just be a responsibility for the leadership team – everyone should have a keen interest in marketplace trends. In the NFL, the players with the highest "football IQ" don't just practice drills pertaining to their position; they spend an inordinate amount of time studying tape on opposing teams for trend recognition. This allows them to decipher what the opponent is going to do and adjust course immediately, which can seem paranormal to those watching the game from the sidelines.

**15. Persistent:** James Dyson created over 5,000 failed prototypes of a bagless vacuum cleaner before he was eventually successful. Even then, he had enormous challenges bringing the product to market, since this new product presented a threat for the manufacturers of vacuum bags. After overcoming these obstacles, James Dyson's net worth is over \$4 billion. Interestingly, he only hires employees who believe that failure is good! By keeping a positive attitude and persevering even when things aren't going your way, this rubs off on your colleagues and creates a wonderfully productive workplace atmosphere. As Winston Churchill once said: "Success is stumbling from failure to failure with no loss of enthusiasm."

**Conclusion:** When you're working with a great team, every day can feel like an adventure. With a bad team, your office can quickly become a dungeon. Choosing the right team members not only affects the atmosphere of your workplace, but it significantly impacts employee productivity – which determines the long-term profitability of the company. Pick your teammates wisely and be sure to screen for personality traits as well as hard skills during the hiring process.

<https://biz30.timedoctor.com/team-member-qualities/>

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IUT International Newsletter is a periodic E-newsletter to be distributed among IUT students and staff.

Your constructive comments and suggestions are most welcomed.

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