Summary

Prince Sultan University, an University with potential for excellence, is committed to innovate, implement and collaborate with all its stakeholders, government, corporate, other educational institutions and the global community to achieve United Nations’ Sustainable Development Goals (SDGs). With a vibrant team of researchers, academicians, faculty members, students, staff and support from the government, PSU is at the forefront in achieving the intended goals. Sustainable Development report 2020 provides an overview of initiatives taken by PSU towards achieving UN SDGs 2030.
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Our Team & Key contact
Greetings! It is a great pleasure for all of us here at PSU, and we are indeed delighted, pleased, privileged to be taking part in the Times Higher Education Impact Ranking. PSU is committed to applying the UN SDG 2030 as part of PSU with our strategic and support to the Kingdom of Saudi Arabia 2030 vision, which in terms of integrating the UN 2030, 17 global goals. Thus, PSU is participating in the upcoming Times Higher Education Impact Ranking, which is solely based upon the SDG 2030.

We at PSU are keen to show how PSU teaches the next generation of PSU students to a depth of sustainability in their lives. We will be demonstrating our commitment to meaningful education around SDGs in our programs and classrooms. So, PSU for higher committees and subcommittees to oversee and follow up on our performance and compliance with the SDGs.

Since the impact rankings are measured based on three broad areas such as research, outreach, and stewardship for the goals, PSU is always determined to perform very well. Therefore, PSU is significantly focusing on several SDGs, including SDG 4, which is quality education, and that’s what PSU is all about. SDG 5, gender equality, is reflected in our student body, where 60 percent of our students are female.

SDG 8 Decent Work and that’s also reflected in our graduates, about 90 percent of our graduates get jobs within three months. SDG16, peace and justice, reflects PSU outstanding law school and SDG 17, which is the partnership for goals comprehensive. So, we are looking forward to and excited about our continued success with SDG compliance.

Thank you.

Dr. Ahmed Bin Saleh Al-Yamani
PRESIDENT
About PSU

Prince Sultan College was founded in 1998 and opened its doors to students the following year. The Ministry of Higher Education PSC was promoted to Prince Sultan University in 2003. It was inaugurated by HRH Crown Prince Sultan bin Abdul Aziz Al-Saud who was the Deputy Premier, Minister of Defense and Inspector General. PSU is a non-profit institutions established in Riyadh by the Al-Riyadh Philanthropic Society for Science and licensed by the Ministry of Higher Education.

Vision

Prince Sultan University aspires to become the leading, non-profit, private university in the Middle East, providing a quality education equal to other reputable universities in the world.

Mission

Prince Sultan University aims to provide the Middle East with a quality education to the highest international standards. In its efforts towards a successful and responsible life-long learning, PSU integrates modern technology, pedagogy and human values for the advancement of scientific research, productivity and leadership towards a more meaningful social life. PSU is committed to effective management of institutional resources to optimize its multiple roles as catalyst for new learning opportunities, national and international partnerships, continuous studies, professional growth, community service and diversity in educational horizons for the good of humanity.
SDGs at PSU

PSU is committed to the United Nations Sustainable Development Goals (SDGs) through effective institutional resources management, innovative teaching, and learning, research, national and international partnerships, continuous studies, and outreach. PSU shall undertake the following activities: form higher and steering committees, evaluate each SDG, formulate and develop related SDG policies, conduct awareness campaigns to the PSU community, establish a sustainability office, identify the SDGs related to each college, program, and course, and lab centers at PSU, and implement sustainability-related initiatives.

Vision

Prince Sultan University strives to support Saudi Arabia's Vision 2030 and the United Nations Sustainable Development Goals (SDGs) by paving the way for higher education in KSA and Middle East.

Mission

Supporting the Saudi Arabia's Vision 2030 and the PSU's strategic directions, PSU aligns its mission with SDGs by providing quality education, sustainability initiatives, lifelong learning, scientific research, and community service.
Sustainable Development Report 2020

No Poverty
No Poverty

Sustainable Development Goals (SDG) were designed to achieve a sustainable future for global community. These SDGs address the world-wide challenges that we face day-by-day, among which some are related to poverty, inequality, climate change, environmental degradation, peace, and justice. It is worth noting that the 17 SDGs are all linked among each other and is expected to attain all the goals within 2030.

Prince Sultan University (PSU) aligned its strategy, internal policies, and governance to embrace and implement the SDGs and is already contributing to the development of first goal i.e., No Poverty. PSU’s correspondence to the policies of Kingdom of Saudi Arabia, to eradicate poverty within its borders and beyond them, is twofold. These efforts stem from a sense of moral and humane responsibility which is manifested in the Kingdom’s humanitarian assistance to developing nations across the globe, the ones that are most often stricken with poverty, as well as to international organizations battling poverty. Internally, the Kingdom strives to lighten the economic load on Saudi citizens and provides financial assistance to low- and mid-income families, in addition to supporting charity organizations, housing projects, and increasing allowances for widows and orphans.

Saudi Arabia initiatives and projects to stop Poverty:

PSU is collaborating with charity committee for orphans care for providing quality education to orphans.

Metrics

Proportion of poor students receiving financial aid to attend university

The proportion of students who got scholarship based on low income was attractive. Students who cannot afford their educational expenses are financially nurtured by PSU throughout the completion of degree.

Source: Academic Year 2020
In local start-ups of business/entrepreneurship, PSU is committed to provide financial assistance to its students.

CSCEC is partnered with Elite UK and Monsha’at to provide skills and tools to small and medium enterprises through faculty members from College of Business, PSU. The elite modules were customized to provide Monsha’at “Small or Medium Enterprises General Authority” (SMEs) with the most relevant information to equip them grow and succeed. This helps in our ever-changing economy as stated in CSCEC mission and vision.

Monsha’at “Small or Medium Enterprises General Authority” (SMEs) provides job opportunities for Saudi people and foster economic empowerment for youth and women. They contribute to the growth and diversity of the economy. Also, they are critical to reduce poverty and contribute to rural and regional development. SMEs can significantly increase their contribution to exports (faster than large corporations). Furthermore, they allow the exploration of new areas of innovation, graduate new champions and enable national entrepreneurs by building strengthened supply chain and increased competitiveness.

ELITE is a unique platform designed to help the UK’s most exciting and ambitious private companies prepare and structure their next stage of growth. It facilitates structured engagement amongst the UK’s most exciting private growth companies, entrepreneurs, and business leaders as well as the corporate advisory and investor community.

ELITE is a three-part service of education, business support, mentoring, and access delivered in collaboration with Imperial College Business School. There were 50 attendees and 20 companies in overall.

Elite Launching Ceremony:
The opening ceremony marked a pivotal moment in Saudi Arabia as Prince Sultan University was the first to partner with Elite (UK Company), in collaboration with Monshaat, to train small and medium enterprises and provide the tools to thrive and grow. The attendees included companies such as Ernst & Young, Riyad Bank, KPMG, PWC, Falcom, and Tadawul. Dr. Ahmed AIYamani, President of PSU and Dr. Rimah AIYahya, Vice President of PSU - Women Campus were also in attendance.

<table>
<thead>
<tr>
<th>Program: First Cohort</th>
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<tr>
<td>Module 1: Growth Strategy</td>
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<td>Module 5: IPO</td>
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<tr>
<td>Module 7: Your Growth Story</td>
<td>Module 7: Your Growth Story</td>
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</tbody>
</table>
Goal in action

TIMELINE COHORT 3
(Oct 2019 – Feb 2020)

1. Review, Selection & Registration
   May-Sept 2019

2. IPO Journey and impact
   22-23 Oct 2019

3. Corporate Governance
   17-18 Dec 2019

4. Six Sigma Green Belt Training
   14-15 Jan 2020

5. Employee Productivity & Business Planning
   11-12 Feb 2020

6. Risk Management
   Feb last week 2020

7. Innovation and Technology
   Feb last week 2020

8. Access to Finance and funding for growth
   19-20 Nov 2019

9. Strategic formulation and Growth
   22-23 Oct 2019

10. Information and technology
    Feb last week 2020

11. Financial Reporting, Management & legal due diligence
    19-20 Nov 2019

12. Venture capital and trade sale
    17-18 Dec 2019
Metric

Student Hunger

Sustainable food choices on campus

Healthy and affordable food choices
National hunger

Access to food security knowledge

Events for local farmers and food producers
Sustainable Development Report 2020

Good Health and Well-being
Good health and well-being

Prince Sultan University is fully committed to good health and well-being which is clearly reflected on different fronts. On research front, the university faculty members produce quality research on health issues from different perspectives, particularly computer science and engineering. PSU has entered into collaborations with local and global health institutions. For example, the university’s prosthetics centre collaborates with Sultan Bin Abdulaziz Humanitarian City in Saudi Arabia and Nia Technologies Incorporation in Canada. The university also pays great attention to the health of its students and staff through wide range of policies, services and activities. Few such instances are smoke-free policy, mental health support through counselling offices at both male and female campuses, arrangement of campus visits by different hospitals and health centres to raise awareness of important health issues, such as diabetes, breast cancer, drug abuse, etc. The university extends its services to the local community to improve health and well-being through different strategies such as organizing blood donation campaigns, visiting hospitals and schools by outreach committees, holding mental health awareness sessions from Psychology Club and providing sports training through physical education clubs. The university makes its sports facilities including swimming pools, basketball and volleyball courts and football pitches, accessible to the local community in pre-scheduled programs. Additionally, the university arranges regular sports competitions for schools and other institutions and offers special sports training programs for different age groups.

Metrics

Research on Good health and well-being

PSU has 77 scholarly publications on Good health and well-being that has 1,748 views, cited 647 times and has 8.40 citations per paper.
Collaborations and health services

Current collaborations with health institutions

Research, Development and Collaboration Agreement

This Research, Development and Collaboration Agreement (Agreement) is made effective March 15, 2018 (Effective Date)

Between
Prince Sultan University
A duly registered university with the Ministry of Education of Saudi Arabia as a Non-Profit Private Educational Institute, whose registered office is at Riyadh, Saudi Arabia.

-and-
Nia Technologies Inc.
A corporation organized under the Canada Not-for-Profit Corporations Act.

WHEREAS PSU wishes to gain knowledge from, and work with, Nia in its continuing research and development of digital tools used and useful to the physiotherapy and orthotics industry (collectively the Project) and often referred to by Nia as BO PrivaBility;

AND WHEREAS Nia wishes to support, assist and collaborate with PSU in pursuit of the Project;

NOW, THEREFORE, the Parties agree as follows:

1.1 "Health Institutions" means either Prince Sultan University or Nia Technologies Inc.

1.2 "Project" means the ongoing work and assistance provided by Nia to PSU.

1.3 "Agreement" means this Research, Development and Collaboration Agreement.

The Agreement shall take effect from the Effective Date, which is March 15, 2018.

In Witness Whereof, the Parties have executed this Agreement as of the Effective Date.

Prince Sultan University
By:

Nia Technologies Inc.
By:

[Signature]
[Signature]
Health outreach programmes

Academic field trip to college of medicine, King Khalid Hospital Riyadh KSA

Smoke-free policy

The university makes sure that all its shareholders such as (faculty, staff, students, scholars, supportive staff and visitors) follow strict rules and make PSU, a smoke-free campus.
Shared sports facilities

Mental health support
Sustainable Development Report 2020

Quality Education
PSU is committed to the United Nations’ Sustainable Development Goals (SDGs), the 4th goal being quality education. With the goal in place, the members of PSU community is toiling hard which is visible through the outcomes that the university accomplished. PSU follows a certain metrics to measure such milestones. Here is an overview of activities accomplished by the university.

Overview of activities accomplished by the university

- Total number of graduates with teaching qualifications: 15.4%
- Lifelong learning opportunities are available at PSU: 40%
- First-generation students starting the first-degree at PSU: 14.6%

Source: Academic Year 2020

Achievements

**CDMA2020: The 6th International Conference on Data Science and Machine Learning Applications**

CDMA2020, the 6th edition of ‘International Conference on Data Science and Machine Learning Applications’ is aimed to gather researchers and Applications developers from a wide range of Data Science related areas such as data analytics, computational intelligence, machine learning, deep learning, pattern recognition, databases, Big Data and Visualization. The Conference will provide opportunities for technical collaboration among data science and machine learning researchers, developers and practitioners in Saudi Arabia, GCC countries and Middle-East region. Acceptance will be based primarily on originality, significance and quality of contribution. All submissions will undergo a blind peer review process before acceptance and possible inclusion in the proceedings of the conference.

**Venue**: Prince Sultan University, Riyadh, Saudi Arabia

**Date**: Wednesday – Thursday (4th - 5th March, 2020)
Metrics

Research on early years and lifelong learning education

This focuses on research that is relevant to pedagogy, measuring paper views, the proportion of papers in the top 10 per cent of cited journals and the volume of research produced.

Number of citations: 2
Number of views: 2
FWCI: 0.49

Proportion of graduates with teaching qualification

In order to understand how a university is supporting early years education, this measures the proportion of university graduates who receive a degree that would enable them to teach at primary school level in their country. Since PSU does not have a college of education, the number is focused on college of humanities graduates who were qualified to teach English as foreign languages. The number reflects the graduates who has Teaching English as a Foreign Languages (TEFL).

Lifelong learning measures

The PSU community is driven by a shared purpose: to make a better world through education, research, and innovation. We are fun and quirky, inventive and artistic, obsessed with numbers, and welcoming to talented people. PSU Mission states “Prince Sultan University aims to provide the Middle East with a quality education to the highest international standards. In its efforts towards a successful and responsible life-long learning, PSU integrates modern technology, pedagogy and human values for the advancement of scientific research, productivity and leadership towards a more meaningful social life.”

Number of graduates: 826
Number of graduates at ISCED 6 (Bachelor Level): 763
Number of graduates at ISCED 7 (Master’s Level): 63
Number of graduates who gained a qualification that entitled them to teach at primary school level: 17

Public resources (lifelong learning)
PSU provides Free Access for those not studying at the university

Public events (lifelong learning)
PSU provides educational activities that are open to the general public on programmed basis

Vocational training events (lifelong learning)
PSU provides vocational training events that are open to the general public on programmed basis

Education outreach activities beyond campus
PSU provides outreach activities in the local community on programmed basis

Lifelong learning access policy
PSU has a policy that ensures that access to these activities is accessible to all, regardless of ethnicity, religion, disability or gender

Source: Academic Year 2020
Proportion of first-generation students

This focuses on research that is relevant to pedagogy, measuring paper views, the proportion of papers in the top 10 per cent of cited journals and the volume of research produced.

Goal in action

Source: Academic Year 2020
Proportion of First Generation Women Starting a First Degree

- First Generation Women Starting a First Degree: 85.1%
- Women Starting a First Degree: 14.9%

Proportion of Women in Senior Positions

- Men: 50.5%
- Women: 49.5%

First Degree Graduates - STEM

- Men: 57.8%
- Women: 42.2%

First Degree Graduates - Arts, Humanities and Social Sciences

- Men: 27.8%
- Women: 72.2%

Source: Academic Year 2020

Proportion of graduates with teaching qualification

Among PSU’s total number of students starting a degree, 63.7% are women. Moreover, the female first-generation students stating a degree is 14.9% from the total number of female students starting a degree.

Proportion of women first-generation

- Number of women starting a degree: 356
- Number of first-generation women starting a degree: 53

Source: Academic Year 2020
Student access measures

PSU systematically tracks and has clear policies for application, acceptance and completion rates for female students. PSU also provides appropriate women’s access schemes and encourages applications in areas where women are under-represented.

1. Tracking access measures

2. Policy for women applications and entry
3. Women’s access schemes
Miras (Female Campus Only)

The Miras Program is designed to be the official link between current PSU students and affiliations to provide students with opportunities to gain meaningful experience in their fields of interest. Miras is an Arabic word which means “flexibility and experience”. The name was chosen to reflect its objectives.

The purpose of the Program is to provide students with work experience in a professional setting aimed to enhance their academic, professional and personal learnings.

These experiences enable students to apply classroom theory to real-world situations, gain awareness of the professional to real-world situations, gain awareness of the professional expectations in the work environment, identify personal developmental needs and gain insight in their potential career directions.

If you face any problem, please feel free to contact us through E-mail (Miras@psu.edu.sa). Your Email should include an explanation of the nature of your problem along with your name and your student ID. Miras Portal: https://info.psu.edu.sa/pscw/miras/Default.aspx.

4. Women’s application in underrepresented subjects
Women in Data Science
Prince Sultan University

Prince Sultan University represented by Artificial Intelligence and Data Analytics research lab (AIDA) organized the Fourth Women in Data Science (WIDS) Conference on March 8, 2021. This conference is organized in collaboration with Stanford University, aims to foster interest and professional participation by women in not only data science but also in engineering and computer science as a whole. PSU WIDS will bring together high-profile international researchers and industry pioneers. Prince Sultan University (PSU) is the WIDS Ambassador, for Stanford and the conference aims to expose the latest data science research and practices in the Arab Middle East by promoting the exchange of ideas, encouraging mentorship, and interdisciplinary collaboration.

Impact of COVID-19 on Women and Role of Data Science - Pan 2021

Themes for WIDS 2021
- Track I: Data Science and Artificial Intelligence during COVID
- Track II: Data Science in Law, Business, Urban Infrastructure, and Digital Humanities
- Track III: Latest Trends and Techniques in Data Science

Event Statistics
- Number of attendees: 1426
- Total Likes: 17,850
- Total Messages Public: 769
- Total Questions Asked: 93
- Nos of Meetings done in the public lounge: 384
- Open Table Watch: 72
- Nos of Meetings done in exhibitor lounge: 453

An insightful talk about: How AI can help to solve real-world challenges

Ms. Harini Suresh, Women AI Academy & Consulting

Google meet link: https://meet.google.com/nak-chee-jrs
Audience: Open to the public

Certificates of attendance will be issued
Proportion of senior female academics

Women in senior positions represent about 49.5% of the total number of senior positions.

Source: Academic Year 2020

Proportion of women receiving degrees

The proportion of female students in STEM programs is 42%. Moreover, 70% of the Art, Humanities, or social science graduates are women.

Proportion of female degrees awarded

Source: Academic Year 2020
Women’s progress measures

PSU has well-established policies for non-discrimination against women, for maternity and paternity and for protecting the rights of those reporting cases of discrimination.

Policy of non-discrimination against women

Maternity and paternity policies

Childcare facilities for students

Childcare facilities for staff and faculty

Women’s mentoring schemes

Track women’s graduation rate

Policies protecting those reporting discrimination

Source: Academic Year 2020

Policy of non-discrimination against women
Maternity and paternity policies

Childcare facilities for students

Track women’s graduation rate
Policies protecting those reporting discrimination
Quality Education

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Overview of activities accomplished by the university

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Summary of accomplishments

Prince Sultan University has taken efforts on bringing the environment pollution free and contribute towards climate change. As an important stakeholder, PSU contributes towards the achievement of sustainable cities and communities through various events, practices, and research. It regularly organizes events and exhibitions for students and employees to promote the affordable, clean and sustainable energy for all.

The strong commitment can be witnessed from the type of support provided in events related to clean energy, EV and the sustainable practices followed for sustainable PSU campus to promote renewable energy and energy efficiency, research contribution on microgrid and EV, etc. Moreover, the integration of clean and affordable energy as an important topic is endorsed in our curriculum and outreach.

Research on affordable and clean energy

Renewable Energy lab, PSU is showing a serious commitment to encourage its researchers to increase their productivity in this field.
Achievements

MoU with Koncar

The Prince Sultan University is involved in several industrial collaborations that are leading the way in the search for alternative energy sources. One such example comes from our Renewable Energy Lab, who are in cooperation with Koncar Power Plant Electric Traction, Croatia for a collaborative consultancy project on microgrids test bench for EV charging and renewable energy.

The focus areas of the sponsors chosen business themes towards Saudi Vision 2030 and United Nations Sustainable Development Goals (SDG 7, 9, & 11). The chosen themes help students, researchers, and faculty to gain the knowledge and experience on new technologies in the clean energy domain.

MoU with Power and Telecom Technologies Co., KFB Holding Group, Riyadh

Prince Sultan University is involved in several industrial collaborations that are leading the way in the search for alternative energy sources. One such example comes from our Renewable Energy Lab, who are in cooperation with Power and Telecom Technologies Co., KFB Holding Group, Riyadh for a collaborative consultancy project on investigations on minimizing electricity cost and feasibility study of self-sustainable campus.

The main objective of the project is to study PSU Lighting electricity network to provide Strategic solutions as per the sustainable development goals (SDG 7, 9, & 11).

- Benchmarking the energy usage with Solar based LED Lighting
- Implementing stepping stones for the Localization Target within renewable energy based lighting sector in context of the Vision 2030
Renewable Energy Lab and Altair Inc Organised two days webinar on Simulation driven Innovation on Emobility and Renewable Energy

Renewable Energy Lab and Altair Inc Organised two days webinar on Simulation driven Innovation on Emobility and Renewable Energy

The global demand for energy continues to increase and the diversity of sources is growing. We are helping customers explore sustainable generation, achieve efficient, distribution, maintain reliable power grids, and transform the market with the Internet of Things (IoT).

Whether in oil and gas, coal, renewable energy, nuclear power, or distribution, our customers use Altair to simulate everything from geomechanics to composite wind turbine blades and analyze structural safety to network loads.

Agenda:
- Ensure Reliability and Robustness with Multiphysics
- Streamline Aerodynamics and Thermal
- Increase Network Efficiency
- Smart Digital Transformation
- Optimize Energy Production and Distribution

Promote pledge on 100 per cent renewable energy (4.6%)

Climate change is a major concern, which needs a collective response to mitigate its catastrophic effects. Energy Swaraj Foundation (ESF) is igniting the Energy Swaraj Movement to bring awareness to people on energy and climate change to make this planet liveable for the sake of our future generations. Renewable Energy Lab, PSU is partnered with ESF for achieving the following sustainable development goals (SDG 7, 11, 13 & 17), to promote 100% renewables and to train the students, researchers, faculty, and technical staff in PSU on Solar PV System Design with digital certification.

Energy Swaraj Foundation & Renewable Energy Lab jointly organised the "Learn to Design your Solar System." This course gives a unique opportunity to become Energy Literate irrespective of their educational background and experience.
Conference on 2020

International Conference on Power Electronics and Renewable Energy Applications

This conference is a step to encourage various professionals for colonizing the relevant topics in Power Electronics and Renewable Energy Applications. The participants from academia, industry and research organisations come closer through presentation sessions, keynote lectures and exhibitions. The conference will be an opportunity to discuss the developments in the signal processing, electronic systems and soft computing which enhances the ability of Power Electronics system for various applications. The applications include FACTS, HVDC, Custom power devices, electric vehicle, Industrial drives, Welding system and Renewable energy developments.

Events

IGEN GENDISTRANSCON 2021

Altair Engineering Inc. is an American multinational information technology company headquartered in Troy, Michigan, USA. For leveraging University programs, Altair offers online programs for students and researchers. As a part of Industry-Academia engagement, Altair in association with Renewable Energy Lab (REL) & the Department of Communications and Networks, Prince Sultan University Organising events/training/certification programs for students of PSU through Altair University. Altair is the collaborator and industry partner with Renewable Energy Lab (REL) & Students Activities Committee, Department of Communications and Networks and will offer more events in the near future.

Coordinators

- Dr. Umashankar Subramaniam
- Dr. Sagar Mahajan Baskar

Department of Communications and Networks Engineering
1. ALTAIR ACADEMIA

For leveraging University programs, Altair offers Student free license for students’ computers (Having functional limitations) and Research bundles (no limitations) of software seats for the course and Lab practices for the universities.


2. Due to COVID-19 work from home Initiatives

It’s a solicited mail for kind perusal. Under Covid19 situation, Altair wishes to open up Learning opportunities to all the students. As a courtesy, please share this info with your Friends/Students/Faculties. Note that these initiatives aid the Outcome-based Education principles of Washington Accord Learning outcomes. Scan QR code in my email signature to download the softcopy of the brochure for the notice board.

In Future

In EE Program, SDGs well incorporated in advance while preparing the program specifications esp. core and elective courses. The courses like power electronics, power systems and elective courses like renewable energy mapped with SDGs 7, 11,12,13, 17 on Clean Energy, Responsible consumption, Sustainable Cities and Climate Action. Also the courses like Engineering Design, Logic Design, Microprocessor Design and Signals and System mapped with SDGs 9, 17. Senior Design Project would contribute for the applications with mapping SDG 1-17. Overall the EE Program designed to map with SDGs 4, 10,16,17 towards Quality Education and Partnerships for the Goals to achieve Reduced Inequalities.
Jubilation Office

PSU ensures positive and joyful working environment through the Jubilation office.

SR 363,226

838 Total number of employees
Equal pay for both male and female faculty members, and staff
Expenditure per employee per annum
High commitment to non-discrimination in the workplace
77% Academic & non-academic staff employed for more than 24 months
94% Students in work placement

Source: Academic Year 2020

Employment Practices

The PSU employees fall in two categories: academic and non-academic. Both are considered as an important asset of PSU for providing quality teaching and learning and its support services. In alignment with its mission, PSU develops a healthy and competitive working environment attracting and retaining local and international qualified professionals, providing them opportunities to excel in their fields, and at the same time protecting their rights and interests.

PSU strictly abides by the Ministry of Human Resources and Social Development laws & regulations and offers decent labor wages more than the minimum slab established by the Saudi Arabia government, provide equal job opportunities to employees based on their professional ability and job experience and thereby eliminate unlawful discrimination with respect to gender, nationality, qualification, and other factors (Governing rules for faculty: article 76). PSU provides an environment for continuous learning by encouraging its faculty to excel in their field of study/work and appreciate them with numerous annual excellence awards.

The Vice President for Administrative and Financial Affairs conducts regular meetings supported by the institutional committees to protect the labour rights and interests of employees in accordance with the Governing Rules and Regulations for Personnel and faculty.
Employment practice living wage
The University is committed to pay all employees, staff and faculty, what they deserve in compliance with the Saudi local living wage laws.

Employment practice unions
PSU is very transparent with all its employees (faculty and staff) about their work rights in compliance with the Saudi labor laws. The university updates their governing and regulations booklets and distributes them to all staff and faculty members. PSU follows rules and regulations of The Saudi Ministry of Human Resources and Social Development.

Employment policy on discrimination
PSU has a zero tolerance policy for any kind of discrimination at work.

Employment policy modern slavery
The university rules and regulations are aligned with The Ministry of Human Resources and Social Development workplace laws. There is a zero tolerance policy for any kind of violation of employees human rights.

Employment practice equivalent rights outsourcing
The university makes sure that all employees (faculty and staff) understand the outsourcing work rights, rules and regulations.

Employment policy pay scale equity
PSU has a policy on pay scale equity including its commitment to measurement and elimination of gender pay gaps. The university human resources department actively ensures equal pay for both genders faculty and staff.

Tracking pay scale for gender equity
PSU respects gender equality in terms of payroll for faculty and staff from both genders.

Employment practice appeal process
The last page of the contract that is signed by stakeholders. Prior contract signing, the employee can appeal with a letter to the president though the human resources personnel their desires in terms of payment. After the President’s decision, the contract would be signed by both stakeholders.
Expenditure per Employee

PSU maintains an extremely high degree of faculty satisfaction and a high retention rate. The total expenditure on employee is SR 304,383,918 per year.

Source: Academic Year 2020

Proportion of students taking work placements

In alignment with the PSU mission which emphasizes on lifelong and service based learning, all programs offered at PSU have incorporated work placement.

Employment Placement

Prince Sultan University offers a Student Work Placement Program known as “Cooperative Education program” to all senior level students pursuing their degree in the 4th year of their program related to their field of study. This program is considered as one of the CORE requirements of the curricula and is equivalent to 10 credit hours applicable to all academic undergraduate programs as a practical onsite experience over a 7-month period (i.e., spanning one semester and a summer. It provides opportunity for successful integration of work and study and enables students to gain hands-on experience in a realistic environment and enhances soft skills. In conclusion, students are provided an opportunity for career exploration and development as well as a chance to learn new skills through the student work placement program.
Most of PSU students complete their coop placement in the big four companies. The COOP is a core requirement for all undergraduate students at PSU upon completion of their coursework in their program. Refer to the PSU PSU COOP Handbook.

| Source: Academic Year 2020 |

<table>
<thead>
<tr>
<th>Total Number of students who completed COOP</th>
<th>Proportion of students taking work placements</th>
</tr>
</thead>
<tbody>
<tr>
<td>6048</td>
<td>94%</td>
</tr>
<tr>
<td>5690</td>
<td></td>
</tr>
</tbody>
</table>

**Total Number of Registered COOP Students**
Proportion of employees on secure contracts

Number of employees on contracts of over 24 months

2019-2020

Academic: 369
Non-Academic: 475

2020-2021

Academic: 371
Non-Academic: 467

Number of employees

2019-2020

Academic: 369
Non-Academic: 475

2020-2021

Academic: 371
Non-Academic: 467

Proportion of employees on secure contracts

77% (646/838)
Proportion of employees on contracts of over 24 months (2020-2021)

80.32%

371

8.46%

74.52%
Conferences organized by PSU

The First International Conference on Artificial Intelligence and Data Analytics (CAIDA 2021)
April 6-7, 2021, Online Conference
Prince Sultan University, Riyadh, Saudi Arabia

1st International Symposium on Applied Linguistics Research (ALR2020)
November 7, 2020

1st GCC International Conference on Industrial Engineering and Operations Management
November 26-27, 2019
Riyadh, Saudi Arabia

SMARTECH 2022
The Second International Conference of Smart Systems & Emerging Technologies
22-24 May 2022
PRINCE SULTAN UNIVERSITY, RIYADH, SAUDI ARABIA
MoU with Koncar

The Prince Sultan University is involved in several industrial collaborations that are leading the way in the search for alternative energy sources. One such example comes from our Renewable Energy Lab, who are in cooperation with Koncar Power Plant Electric Traction, Croatia for a collaborative project on microgrids test bench for EV charging and renewable energy in REL at Prince Sultan University.

The focus areas of the sponsors chosen business themes towards Saudi Vision 2030 and United Nations Sustainable Development Goals (SDG7,9,11). The chosen themes help students, researchers, and faculty to gain the knowledge and experience on new technologies in the clean energy domain.

MoU with Power and Telecom Technologies Co., KFB Holding Group, Riyadh

The Prince Sultan University is involved in several industrial collaborations that are leading the way in the search for alternative energy sources. One such example comes from our Renewable Energy Lab, who are in cooperation with Power and Telecom Technologies Co., KFB Holding Group, Riyadh for a collaborative consultancy project on investigations on minimizing electricity cost and feasibility study of self-sustainable campus.

The main objective of the project is to study PSU Lighting electricity network to provide Strategic solutions as per the sustainable development goals (SDG 7, 9, 11)

- Benchmarking the energy usage with Solar based LED Lighting
- Implementing stepping stones for the Localization Target within renewable energy based lighting sector in context of the Vision 2030
MoU with Schneider Electric

The agreement was signed by Dean of the College of Engineering Dr. Abdullakim Almajed, while Schneider Electric Company was represented by the CEO of the company, Eng. Muhammad Shaheen. The agreement aims to support cooperation between the two parties in the fields of energy, automation and digitization, as Schneider Electric, through its global experience in this field, supports the university to benefit from the latest devices and technologies manufactured by Schneider Company. Training students on the latest knowledge, in addition to providing the opportunity to transfer knowledge to students through specialized training programs.
Collaboration with external partners
Patents

PSU researchers were able to secure two patents, based on individual efforts and collaboration with external researchers, although the ideas were issued by PSU researchers.

**US20210265919A1**

**Microgrid power supply system dc-dc converter and controlling method**

A DC-DC voltage converter includes an input circuit, a parallel linked leg (PLL), an output circuit and a controller. The PLL includes an active leg switch, a leg inductor, a leg capacitor and a leg diode.

Mahajan Sagar BHASKAR, Dhafer J. ALMAKHLES, Umashankar SUBRAMANIAM, Sanjeevikumar PADMANABAN, Sakthivel RATHINASAMY

**Buck-chopper and bi-directional chopper for multilevel cascaded H-bridge inverters**

A cascaded H-bridge (CHB) inverter for higher rated power conditioning systems which operates at medium voltages while providing high power quality and low dv/dt.

Sridhar VAVILPALLI, Umashankar SUBRAMANIAM, Dhafer Jaber ALMAKHLES

**Metrics**

Research on Industry, Innovation and Infrastructure

PSU’s scholarly publications on Industry, Innovation and Infrastructure so far has 283 views and 3.13 citations per paper.
Reduced Inequalities

- 14 percent increase in first-generation students compared to previous years
- Takeaway: Increased awareness and insightful policies to reduce inequalities

- 0.3% at PSU are paralyzed and are treated without extra cost.
- PSU is trying to brighten them as an equal & well-established citizen of the kingdom

Prince Sultan University is an equal opportunity institute that strongly prohibits all forms of discrimination based on gender, race, ethnicity, religion, nationality, or disabilities

Achievements

- More than 14.6% of students at PSU are first-generation students
- More than 14.2% of total number of first-generation students in PSU are from developing countries
- 17 students & 4 staff at PSU are identified with one or more disabilities
First-generation students

Being a first-generation college student represents progress in a family. Most people who decide not to go to college do so, because of unaffordability. Food, living expenses, textbooks, and tuition incur huge amount to be spent. Few economically-backward families may get intimidated by the price tag, a common issue. However it is important to remember that the ‘sticker price’—aka the published price of tuition—is not necessarily what students will have to pay. The ‘net price’ is what students and families pay, after scholarships and financial aid are taken into consideration.

Prince Sultan University takes initiative in this regard for those students who cannot afford their university expenses. PSU offers scholarships based on merit and provides financial aid to low-income families with an aim that those students shine as a major part of the society. The distribution of first-generation students at PSU is shown herewith.

**First-generation students**

This table shows the proportion of international students at all degree levels who are from low-income and lower-middle-income countries, as defined by the World Bank.
Students and staff with disabilities

Prince Sultan University is committed towards treating students and staff with disabilities equally without any discrimination in any aspects. The university offers extraordinary facilities to all of its students & staff members, without any additional cost, one of which being ‘hotline service’. Further, Prince Sultan University provides handicapped parking slots for all disabled students and staff members also every building is equipped for these students and staff members.

List of differently-abled students at PSU
Measures against discrimination

Princes Sultan University has a policy oriented to the management of different capacities of students as well as their disabilities. As an evidence, the manual for the admission of students can be observed with loads of information and some of the resources of admission for students.
Sustainable Development Report 2020

Sustainable Cities and Communities
Sustainable cities and communities

Prince Sultan University exhibits high commitment to global blueprints designed to deliver progress, peace and prosperity for people and the planet, including preserving and sustaining the heritage of communities. As an important stakeholder, PSU contributes towards the achievement of sustainable cities and communities through various events, practices and research. It regularly organizes events and exhibitions for students and employees to promote the culture and appreciation of Saudi heritage.

The strong commitment can be witnessed from the type of support provided in events related to arts and heritage and the sustainable practices followed for sustainable commuting, remote working for employees, affordable housing, buildings to sustainable standards etc. Moreover, the integration of sustainability as an important topic is endorsed in our curriculum, research and outreach.

Achievements

Promoting Arabic Language & Culture

CSCEC implemented several sessions of Arabic Language Analysis workshops in collaboration with the general courses department presented by PSU faculty member. The audience of these workshops were women from society who are interested in knowing more about Arabic, as a language. The main aim was to raise awareness of our culture among society. The number of attendees was 31 and the workshops were conducted on every Saturday from 9:00 am-11:00 am. The attendees from the public were glad and expressed gratitude to find PSU as an academic venue to share their interest in Arabic language knowledge.

Weekly Arabic Language Analysis Workshop Sessions
- (25 January-07 March 2019)
Art Promo Exhibition
Sustainable Development Symposium/Workshop

PSU Eco team in Shell Eco Marathon Asia 2019

PSU Eco team participated in Shell Eco Marathon Asia in April 2019. The commissioning of PSU Eco-Carwas on-track and the teams battled in the mileage challenge, competing within vehicle categories and energy classes to see which the in-house vehicle can travel the furthest consuming the least amount of energy.
Green Building & LEED Certification

Green Building lecture series was organized by ID Department in collaboration with CSCEC. It was implemented on two stages; the first one of the series was LEED course presented by PSU alumni for four days. The next stage was organizing a forum where PSU welcomed a guest speaker. He was the Vice President of the US Green Building Council (USGBC) who highlighted the next step in sustainability which aligns with 2030 Environmental Sustainability Vision. The main goal was to raise awareness and to inform the community about professional knowledge regarding KSA Green Building Industry. Tae Yi anchored a presentation about LEED at PSU. At the end of forum, LEED certifications were distributed to the participants.

Celebrations on Saudi National Day

PSU celebrates Saudi National day (23rd September) every year with students and employees. This promotes and supports the art, heritage and culture of Saudi Arabia.
Participation in Saudi Design Week

A field trip to Saudi Design Week was organized by Interior Design Department for students and faculty members.

Field trip to Asir

A trip was organized by Interior Design Department for students and faculty members to Asir in order to strengthen their understanding and appreciation for the culture and Saudi Heritage.

Metrics

Research on sustainable cities and communities

PSU’s research papers related to sustainable cities and communities has 455 views and 1.5 citations per paper.

Source: The Interior Design Department Outreach Committee.
Support of arts and heritage

The university conducts events related to Saudi culture and heritage and also participates in such events in the region.

PSU provides public access to libraries including books and publications. A bookfair was also organized to promote the culture of sharing and donating books. In addition, PSU students and faculty actively participate in Riyadh International Book Fair-One of the most important cultural events hosted by the Ministry of Culture and Information in Arab region.

The university offers free public access to visit and borrow books (with refundable deposit).
Art Promo Exhibition

Various departments cooperate with Public relations office for arranging free field trips to students and faculty members to places of cultural significance. Most of these trips are organized for free and some are paid, if it requires traveling.

A trip was organized by Interior Design Department for students and faculty members to Asir to strengthen their understanding and appreciation for the culture and Saudi Heritage.

Sustainable practices

1. The university offers housing for faculty members and bus shuttle service for faculty members who stay at different university housing.

2. The university offers flexible work options.

3. The university buildings are designed to be sustainable, green and energy-efficient.
Goal in Action
Sustainable Development Report 2020

Responsible Consumption and Production
Responsible Consumption and Production

Prince Sultan University took efforts on bringing down the environment pollution and contribute in the fight against climate change. As an important stakeholder, PSU contributes towards the achievement of sustainable cities and communities through various events, practices, and research. It regularly organizes events and exhibitions for students and employees to promote responsible consumption and production.

The strong commitment can be witnessed from the type of support provided in events related to E-waste and the sustainable practices followed in PSU campus that promote responsible consumption and production, research contribution, etc. Moreover, the integration of consumption and production as an important topic is endorsed in our curriculum and outreach.

Impact example

Prince Sultan University is involved in several industrial collaborations that are leading the way in search for alternative energy sources. One such example is our Renewable Energy Lab’s association with Power and Telecom Technologies Co., KFB Holding Group, Riyadh for a collaborative consultancy project on minimizing electricity cost and feasibility study of self-sustainable campus.

The main objective of the project is to study PSU Lighting electricity network to provide Strategic solutions as per the sustainable development goals (SDG 12, 13, 17)

01 Clear plan for executing energy saving measures by identifying energy-intensive electrical utilities inside the campus

02 Economic analysis for power quality improvement and energy savings

03 Identifying inefficient electrical processes in the campus

04 Analysis of financial benefit (reduction in the billing cost), investment and payback period
Research on Responsible Consumption and Production

The commitment towards encouraging researchers is high at Prince Sultan University which results in high productivity across the department. PSU’s scholarly output researches related to SDG 12 – responsible consumption and production in the past academic year has 1227 views and 4.03 citations per paper.

Research

Renewable Energy lab, PSU is showing a serious commitment to encourage its researchers to increase their productivity in this field.

Application of Machine Learning for Fault Detection and Energy Efficiency Improvement in HVAC Application

By Umashankar Subramaniam, Sai Charan Bharadwaj, Nabanita Dutta, M. Venkatesh Kumar

Book: Artificial Intelligence (AI)
Edition: 1st Edition
First Published: 2021
Imprint: CRC Press
Pages: 16
eBook ISBN: 9781003005629

The technology augmenting the human civilization in a significant stage is none other than artificial intelligence which has adopted human thinking level power and working as per level of the human brain, sometimes more than that also. From this point of view, the birth of machine learning and deep learning happens which are part of AI and which are basically the tool where machine learns from a human being based on data, pattern, and images. Sometimes it is very difficult for the human being to handle a huge amount of data manually, then the importance of machines is realized.
Cybernetics approaches in intelligent systems for crops disease detection with the aid of IoT

Sensorless parameter estimation of VFD based cascade centrifugal pumping system using automatic pump curve adaption method

The Sustainable Development Goal 7 necessitates efficient energy utilization and aligning energy efficiency targets to industrial machines would pave a way for prospective developments. Pumps are inevitable in commercial and industrial sectors and they contribute to nearly 22% of the global industrial energy utilization. Attesting the fact, this paper focuses on the energy-efficient operation of a pumping system by governing the speed using Variable Frequency Drives (VFDs).

Quality Management Practices of food manufacturers: a comparative study between small, medium and large companies in Malaysia
Educational Events

Recent Trends in EV and Battery Charging Infrastructures

5:30 PM, November 17, 2020

EV Charging technology is a rapidly growing market these days, but currently it is limited to pilot projects only. Though few key players are in the market, small scale industries dominating in this competition who are mainly power electronic firms manufacturing products like power panels, battery chargers, rectifiers etc and they entered into EV chargers market due to huge demands. This presentation covers the details of the EV and battery chargers and key players in the market both plugin and wireless charging technologies. Also, it explains the contribution of smart grids, smart buildings and smart cities to drive the EV charging market.


Renewable Energy Lab (REL), College of Engineering, Prince Sultan University is organizing International Virtual Conference on Electrical Energy Systems (ICEES 2021) on February 11-13, 2021 as a partner Institution. SSN College of Engineering, Chennai, India is hosting this conference.

The Virtual Conference is a platform for researchers, academicians as well as professionals from all over the world to present, discuss and promote the knowledge, research and practice in the field of Power Electronics, Smart Grid, Renewable Energy Sources, Energy Storage, and Electric Vehicle Charging. ICEES 2021 is offering a fantastic opportunity to attend a global scientific forum from the convenience of your desktop. The conference is online, from paper submission, including reviewing, conference discussion, and post-conference processing. All papers will be referred to the double tier approval process, single-blind peer-review, and regular check. The online conference is a smart and affordable manner of presenting research results.

Selected papers will be published in IEEE Xplore at the discretion of IEEE.
Sustainable Development Report 2020

Climate Action
Climate Action

Prince Sultan University is attentive on bringing down the environment pollution and contribute in the fight towards climate change. As an important stakeholder, PSU contributes towards the achievement of sustainable environment and campus through various events, practices, and research. It regularly organizes events and exhibitions for students and employees to promote the awareness on climate change.

The strong commitment can be witnessed from the type of support provided in events related to clean energy. EV and the sustainable practices followed for sustainable PSU campus to promote measures for climate change and research contribution etc. Moreover, the solutions and impacts of climate change is an important topic is endorsed in our curriculum and outreach.

Impact example – Low carbon energy use

The Prince Sultan University is involved in several industrial collaborations that are leading the way in the search for alternative energy sources. One such example comes from our Renewable Energy Lab, who are in cooperation with Koncar Power Plant Electric Traction, Croatia for a collaborative project on microgrids’ test bench for EV charging and renewable energy to combat climate change.

The Prince Sultan University is involved in several industrial collaborations that are leading the way in the search for alternative energy sources. One such example comes from our Renewable Energy Lab, who are in cooperation with Power and Telecom Technologies Co., KFB Holding Group, Riyadh for a collaborative consultancy project on investigations on minimizing electricity cost and feasibility study of self-sustainable campus towards climate change mitigation.

1. Introducing custom-made techniques for local environment conditions like robotic panel cleaning etc. as per the SDGs 9 and 13

2. Setting up a remote monitoring and control station at Renewable Energy Lab for the performance analysis of installed lights
Research on Climate Action

PSU’s scholarly output researches related to Climate Action in the past academic year has 497 views and 4.36 citations per paper.

Renewable Energy lab at PSU is showing serious commitment to encourage its researchers for increasing their productivity in this field.

Environmental education measures

Renewable Energy Lab (REL), College of Engineering, Prince Sultan University has organized several events and conferences in association with top ranking universities in the world in the ‘climate change’ theme.

01 e-Mobility
02 Virtual Conference on Energy, Smart Grid and EV
03 Wind Energy Technology
04 IGEN GENDISTRANSCON 2021
e-Mobility

Delivering e-Mobility to the masses is not only a huge investment, but a significant operational undertaking. As OEMs, suppliers, and emerging vehicle manufacturers invest billions to develop innovative electric vehicles, and optimize development and production processes, they are looking for a strategic partner to help realize their vision. Al Ta’ar Technologies are changing the way electric passengers, off-highway and autonomous vehicles are designed, enabling them to accelerate product development, enhance the energy efficiency, and optimize integrated system performance.

Agenda: 23 June
- e-Mobility research and development trends
- Leveraging virtual engineering platform for faster product development
- e-Mobility components – Light weighting, Advanced Material, Safety and Comfort, Electronics and Battery, Connected systems
- e-Mobility infrastructure design
- Advance Driver assistance system

Register here: (https://attendee.gotowebinar.com/r)

Speakers:
- Umashankar Subramaniam
  - Associate Professor, Renewable Energy Lab, College of Engineering, Prince Sultan University, Saudi Arabia.

- Mr. Prashant Kulkarni
  - Industry Applications - Al Ta’ar

- Mr. Kamleshwar
  - Industry Applications - Al Ta’ar

- Mr. Manoj N
  - Industry Applications - Al Ta’ar

- Mr. Sandeep Ramagiri
  - Industry Applications - Al Ta’ar

- Mr. Sudhir Padaki
  - Industry Applications - Al Ta’ar

Virtual conference on Energy, smart grid and EV

Renewable Energy Lab (REL), College of Engineering, Prince Sultan University is organized International Virtual Conference on Recent trends on Renewable Energy, Smart Grid, and Electric Vehicle Charging (RESGEVT-20) on 9th July 2020 as a partner institution in association with Top ranking universities in the world. VIT University Vellore India is hosting this conference. The Virtual Conference is a platform for researchers, academicians as well as professionals from all over the world to present, discuss and promote the knowledge, research and practice in the field of Smart Grid Control, Renewable Energy Sources, Energy Efficiency, Power Quality and Electric Vehicle Charging to combat climate change. RESGEVT-20 is offering a fantastic opportunity to attend a global scientific forum from the convenience of your desktop. The conference is online, from paper submission, including reviewing, conference discussion, and post-conference processing. All papers referred to the double tier approval process, single-blind peer-review and regular check. The online conference is a smart and affordable manner of presenting research results. Selected papers based on the domain and quality published in Scopus Indexed conference proceedings (IOP Conference Series).
Wind Energy Technology

The Department of Electrical and Electronics Engineering Technology and the IEEE Students Chapter of Jubail Industrial College cordially invites you for a free webinar on:

**WIND ENERGY TECHNOLOGY**

and its Research Challenges - A Global and Saudi Arabia Perspective

Dr. Umashanker Subramanian
Renewable Energy Lab, College of Engineering, Prince Sultan University

15 July 2020
10:30 - 11:00 AM
http://epjw.org/journals/SourceDetail.aspx?id=4270
No registration charge and active participants will receive certificates
Further information Contact: training@kuc.ac

Www.EE.JCD.ORG

IGEN GENDISTRANSCON 2021

*The Institution of Green Engineers*

**IGEN GENDISTRANSCON 2021**

(International Conference on Electric Vehicle and Energy Storage)

**EMINENT SPEAKERS**

- Prof. Dr. Suresh Kumar Padmanabha
- Dr. Erik Schulte
- En. Bhushan B. Matha
- Prof. Dr. Umashanker Subramanian
- Prof. Dr. Muthukumarasubramanian

**Research**

27-28

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Research

Intelligent optimization for charging scheduling of electric vehicle using exponential Harris Hawks technique

Ramkumar Deverdiran, Padmanathan Kasinathan, Vigna K. Ramachandaramurthy, Umashankar Subramaniam, Uma Govindarajan, Xavier Fernando

First published: 07 June 2021 | https://doi.org/10.1002/int.22531

A Novel Deep Learning Based Model for Tropical Intensity Estimation and Post-Disaster Management of Hurricanes

Jayanthi Devaraj, Sumathi Ganesan, Rajivkumar Madurai Elavarasan and Umashankar Subramaniam

Abstract: The prediction of severe weather events such as hurricanes is always a challenging task in the history of climate research, and many deep learning models have been developed for predicting the severity of weather events. When a disastrous hurricane strikes a coastal region, it causes serious hazards to human life and habitats and also reflects a prodigious amount of economic losses. Therefore, it is necessary to build models to improve the prediction accuracy and to avoid such significant losses in all aspects. However, it is impractical to predict or monitor every storm formation in real time. Though various techniques exist for diagnosing the tropical cyclone intensity such as convolutional neural networks (CNN), convolutional auto-encoders, recurrent neural network (RNN), etc., there are some challenges involved in estimating the tropical cyclone intensity. This study emphasizes estimating the tropical cyclone intensity to identify the different categories of hurricanes and to perform post-disaster management. An improved deep convolutional neural network (CNN) model is used for predicting the weakest to strongest hurricanes with the intensity values using infrared satellite imagery data and wind speed data from HURDAT2 database. The model achieves a lower Root mean squared error (RMSE) value of 7.6 knots and a Mean squared error (MSE) value of 6.68 knots by adding the batch normalization and dropout layers in the CNN model. Further, it is crucial to predict and evaluate the post-disaster damage for implementing advance measures and planning for the resources. The fine-tuning of the pre-trained visual geometry group (VGG) model is accomplished to predict the extent of damage and to perform automatic annotations for the image using the satellite imagery data of Greater Houston. VGG 19 is also trained using video datasets for classifying various types of severe weather events and to annotate the weather event automatically. An accuracy of 98% is achieved for hurricane damage prediction and 97% accuracy for classifying severe weather events. The results proved that the proposed models for hurricane intensity estimation and its damage prediction enhances the learning ability, which can ultimately help scientists and meteorologists to comprehend the formation of storm events. Finally, the mitigation steps in reducing the hurricane risks are addressed.

Keywords: deep learning (DL); hurricanes; convolutional neural network (CNN); visual geometry group (VGG 19); data augmentation (DA)
Sustainable Development Report 2020

Life Below Water
Life Below Water

Healthy oceans and seas are very important to lead a healthy life with sound environment. Although aquatic space covers about 70 percent of our planet, humankind is damaging these precious resources of water, food, and energy by polluting them. It is the responsibility of every one of us to protect marine life around the world.

The research institutions and academia can play an important role in raising awareness and conducting campaigns to stop harming the aquatic space. The research should target at reducing the pollution and restoring the ecosystem by reducing ocean acidification. This can be accomplished through cooperation at all levels. Joint efforts should be put to reduce and regulate overfishing. Global universities should encourage scientific research, knowledge, and technology to protect and safeguard the health of seas and oceans.

The implementation of sea law and the introduction of sea law under law curricula will help tremendously to raise awareness among the younger generation to be conscious of the bad effects on our lives in an unhealthy ecosystem.

Healthy oceans, clean water, and preserved aquatic resources are essential to lead a better life and to stay healthy.

Metrics

Supporting aquatic ecosystems through education

The university, through its colleges and programs, provide understanding and information on supporting aquatic ecosystems. The programs provide courses, from its disciplines, that speaks about environmental impacts of their field of work to students.

Fresh-water Ecosystems (Community Outreach)

The College of Law, through its courses such as Law462 International Environment Law, talks about the Saudi Law and explores public international law in the context of global environment. International environmental issues to be studied include biodiversity, climate change, ozone depletion, sustainable development, Antarctica, toxic substances, nuclear weapons and waste, and transboundary pollution.
Supporting aquatic ecosystems through action

Conservation and Sustainable Utilization of the Oceans (events)

The University supports research on climate change and activities to promote sustainable environment.
Life on Land

The majority of the land area of the Kingdom of Saudi Arabia is desert. Thus, sustaining life on land is essential in the Kingdom to preserve existing land use and reverse desertification. The use of land to sustain human life is vital in supporting livelihoods.

Prince Sultan University is committed to ensuring its land preservation by implementing its policy on plastic waste reduction and policy on hazardous waste disposal.

Metric

Land sensitive waste disposal

Policy on plastic waste reduction & Policy on hazardous waste disposal

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Prince Sultan University
PSU Policy Management Systems
Sustainable Waste Management, Prevention and Disposal Policy

Policy Code: GV0016
Policy Name: Sustainable Waste Management, Prevention and Disposal Policies
Handling Unit: PSU Maintenance Department
Date of Current Revision: August 2020
Approved by: University Council
Date of Approval: 02/09/2020

Purpose and Aims:
Prince Sultan University is a sustainable green university that preaches and applies sustainable development approaches and practices at all levels. As part of its endeavors to build a safe, green campus, PSU adopts sustainable waste management and disposal practices that are implemented in coordination with municipal and government agencies.

Aims:
PSU waste management and disposal policy aims to:
- Build and maintain a safe, healthy green campus
- Apply the appropriate approach and use the proper channels for disposing waste based on its category
- Minimize the use of plastics and reduce plastic waste
- Minimize the use of disposable items
- Adopt energy efficiency standards
- Avoid carbon-intensive industries and similar chemical processes that cause the emission of unhealthy gases
- Measure and monitor the amount of landfill and recycled waste

Categories of waste:
1. Landfill solid waste
2. Electronic waste
3. Paper waste
4. Hazardous materials
5. Reusable old furniture and equipment
6. Plastic waste
7. Carbon and unhealthy gas emissions
Policy:

- PSU maintenance unit is the entity responsible for waste management, prevention and disposing
- The maintenance unit establishes the appropriate infrastructure, instructions and guidance for waste management, prevention and disposing.
- The maintenance unit applies the appropriate approach and channel for waste disposal based on the waste handling table below
- Landfill waste is disposed using services provided by the Municipality waste disposal network
- A prevention approach is used to reduce carbon and gas emissions
- Other types of waste are disposed in coordination with specialized agencies and charity organizations
- The unit regularly measures the amounts of landfill and recycled waste respectively and raises regular reports on these to upper admin departments
- The department raises regular reports to the higher administration and the quality assurance office
- The quality assurance office is responsible for monitoring performance and KPI's

<table>
<thead>
<tr>
<th>Waste Category</th>
<th>Handling Approach</th>
<th>Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Landfill waste</td>
<td>Disposal using appropriate channel</td>
<td>Municipal Waste Disposing network</td>
</tr>
<tr>
<td>Electronic Waste</td>
<td>Recycling through specialized agencies recommended by the Municipality</td>
<td>Specialized agencies for disposing electronic waste</td>
</tr>
<tr>
<td>Publications and Paper Waste</td>
<td>Recycling or donation through recommended agencies or recognized charity organizations</td>
<td>Philanthropic societies and organizations</td>
</tr>
<tr>
<td>Hazardous Material Waste</td>
<td>Disposal through trusted specialized agencies recommended by the Municipality</td>
<td>Trusted specialized agencies for disposing hazardous waste</td>
</tr>
<tr>
<td>Reusable Furniture and Equipment</td>
<td>Donation to needy people and organizations through charity organizations</td>
<td>Recognized charity organizations</td>
</tr>
<tr>
<td>Carbon and gas emissions</td>
<td>Minimization or prevention</td>
<td>Instructions, regulations, and guidelines</td>
</tr>
<tr>
<td>Plastic waste</td>
<td>Minimization or prevention</td>
<td>Instructions, regulations, and guidelines</td>
</tr>
</tbody>
</table>

Implementation:

- The maintenance unit establishes guidelines and processes for waste management and disposal
- Disseminates guidelines and monitors the process
- Outsourcing the recruitment of cleaners and workers to manpower agencies
- Raise reports to superiors and the quality assurance committee
Sustainable Development Report 2020
Peace, Justice and Strong Institutions
University Governance Measures

Prince Sultan University's measure in governance includes an elected representation on the university's governing body and recognition of a students' union. It also includes policies to engage local stakeholders and policies that support academic freedom. The University takes measures to fight corruption and to combat bribery through the principles on organized crime, corruption, and bribery. The university is also transparent in publishing its financial data.

Elected Representation

Student Council

The students' council is a core pillar for PSU. It is an elected council with a wide range of possibilities and authorities. Additionally, elections for the Student Council are held annually with the main focus on diversity and overall representation. Students Council is committed to academic excellence and scholarship, community service, integrity, and leadership.

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Position in the Student Council</th>
<th>Campus</th>
<th>Position in the Student Council</th>
<th>Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hussein Aluwad</td>
<td>President</td>
<td>Male</td>
<td>President</td>
<td>Female</td>
</tr>
<tr>
<td>2</td>
<td>Ibrahim Sadeeq</td>
<td>Vice-President</td>
<td>Male</td>
<td>Vice-President</td>
<td>Female</td>
</tr>
<tr>
<td>3</td>
<td>Abdulmajeed</td>
<td>Secretary</td>
<td>Male</td>
<td>Member</td>
<td>Female</td>
</tr>
<tr>
<td>4</td>
<td>Mohamed Abdul</td>
<td>Speaker of the Council</td>
<td>Male</td>
<td>Member</td>
<td>Female</td>
</tr>
<tr>
<td>5</td>
<td>Amin Al-Sisi</td>
<td>Treasurer</td>
<td>Male</td>
<td>Member</td>
<td>Female</td>
</tr>
<tr>
<td>6</td>
<td>Saud Al-hammoo</td>
<td>Coordinator</td>
<td>Male</td>
<td>Member</td>
<td>Female</td>
</tr>
<tr>
<td>7</td>
<td>Khalid Alhammari</td>
<td>Member</td>
<td>Male</td>
<td>Member</td>
<td>Female</td>
</tr>
<tr>
<td>8</td>
<td>Leen AlMossa</td>
<td></td>
<td></td>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>9</td>
<td></td>
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</tr>
</tbody>
</table>
Student Clubs

EdTech Club orientation session
Want to know who we are and what we do? Join our session online!

12:00-1:00 6th Sept.
Nora Alqabami
Arwa Alnurki

http://meet.google.com/kjo-karc-jef

DO YOU NEED COMMUNITY SERVICE HOURS?

REMINCERS AND MORE!
- Earn US certificates.
- Start new clubs.
- Mentor community clubs.
- Train leaders.
- Judge speech contests.
- Network with community leaders.

JOIN TOASTMASTERS TO COMPLETE YOUR PROFESSIONAL DEVELOPMENT AND COMMUNITY SERVICE HOURS TODAY!
For more information contact:
Dr. Tahira Ihsan tahiro@psu.edu.sa
Dr. Ali Almutawale cmitele@psu.edu.sa
Dr. Haifa Biad Sirer hsirer@psu.edu.sa

Student Club Activities

The Deanship of Student Affairs recognizes the importance of student clubs and their roles in the overall development and morale of university students. Towards that end, the DSA encourages students to submit club proposals which are vetted and assessed en route to being listed as a DSA recognized student club. The Deanship of Student Affairs offers two types of Clubs: academic, and non-academic. This ensures that the university students’ needs are met whereby their overall academic performance can improve by becoming a part of academic clubs and their spirits can be lifted by the recreational clubs.
University Council

University Council is the highest governing body in the university. The Council is presided by the PSU President and composed of the Vice Presidents (Academic Affairs & Research, Financial and Administrative Affairs) and the Deans of all colleges. The Council decides on the different academic

Student Clubs and Activities

Prince sultan University encourages the different colleges to have clubs to create a recreational and opportunities to enhance the skill sets of the students in their areas of interest. There are many students’ clubs and they are categorized as “specialized students Clubs” and under the web page of each college. Many activities are organized and most of them target the Community as a whole

Finance Club
Offering a suitable environment for students who are interested in finance to participate in activities, visit and workshops. We hope to increase the awareness of the students about finance and its effect on their life.

Law Club
We are looking forward – passionately – to be part of the learning process and for it to be valuable, beneficial and a continuation for the academic study throughout events and various activities.

Computer Club
Cares about making activities, workshops or events for the students, in order to develop the students’ knowledge.

Production Club
The club aims to support the students through raising awareness, helping or advising them in order to keep up with vision 2030.

Construction Club
The club’s purpose is to support, aware students to participate in events, help the society and keep up with vision 2030.

Marketing
Interested in everything that deals with marketing or business management through making meetings or workshops that develop the students’ skills and increase their experience in this major.
Student Clubs and Activities

**Tatweer**
We aim toward improving the Communication and Network students' knowledge and experience in their major through events and visits to pioneer in this field.

[Link](DevelopmentClub@psu.edu.sa)

**Accounting Club**
Strengthening and preparing students to gain accounting knowledge through brightening their technical skills through offering them workshops and meetings related to their major. Therefore, our club completing the academic study.

[Link](accountingClub@psu.edu.sa)

**PSU Youth**
PSU Youth aims to provide opportunities to students that build their skills and develop their confidence and develop their personal talents.

[Link](youthClub@psu.edu.sa)

**PTS Club**
Folk dance club is a group of students exhibiting the PTS Club Saudi Heritage through dancing in a very artistic way.

[Link](PTSClub@psu.edu.sa)

**Namaa Club**
We are the sons of PSU we aim to be part of vision 2030 where our plan is to Compliment with KSA’s plan in developing and enhancing all the society in entertainment and education part of life.

[Link](namaaClub@psu.edu.sa)

**Spectrum club**
To be the VOICE of students at PSU, To Bring information and latest on-campus buzz to people associated with PSU and to provide a platform for others to express their talent and creativity.

[Link](spectrumClub@psu.edu.sa)

**Cinema Club**
It's a club to raise the awareness about cinematics and to document events of the university.

[Link](cinemaClub@psu.edu.sa)

**Theatre Club**
The club provides events and theatrical scripts in various fields on the stage offering what’s fun and beneficial for the university.

[Link](TheatreClub@psu.edu.sa)

**Toastmaster Club**
Toastmasters aims to develop leadership and speaking skills in its members by creating a positive environment that helps them become creative and gives them the courage to step out of their comfort zones.

[Link](toastmasterClub@psu.edu.sa)

**Vision Club**
Aims to develop non-academic skills in its members by providing them some events and visits in which they gather information and experience. This club goes in parallel with 2030 Vision of Kingdom of Saudi Arabia.

[Link](VisionClub@psu.edu.sa)

**Entrepreneurship CLUB**
Aims to Encourage the student's interest in entrepreneurship Club, enhance business knowledge, and build business knowledge, and build confidence in every student at prince Sultan university.

[Link](entrepreneurshipclub@psu.edu.sa)

**3D CLUB**
Aims to develop the skills of students and increase their awareness of 3D modeling and its role in multiple engineering fields.

[Link](3Dclub@psu.edu.sa)

**Cyber Security**
Aims to spread security and privacy awareness and provide students who are interested in cybersecurity with the technical resources needed to advance their cybersecurity careers.

[Link](Cybersec.club@psu.edu.sa)

**Aviation Club**
aims to EDUCATE, ENABLE and INSPIRE students to ACHIEVE their DREAMS in AVIATION and help them to have good knowledge and experience in different areas in aviation.

[Link](Aviation@psu.edu.sa)
## Student Clubs and Activities

<table>
<thead>
<tr>
<th>Club Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Digital Literacy Club</strong></td>
<td>Raising awareness of the humanities’ role in technological design especially with AI, bias, gender roles, inclusion, and diversity.</td>
</tr>
<tr>
<td><strong>Environment Club</strong></td>
<td>Spread awareness of the environment</td>
</tr>
<tr>
<td><strong>Eradah Club</strong></td>
<td>Eradah is a student-based club that aims to strengthen and enhance members’ willpower by exposing them to various skill-based programs, activities, and events.</td>
</tr>
<tr>
<td><strong>Intercultural Club</strong></td>
<td>Align activities with Vision 2030 categories for volunteering, promoting lifelong learning, cultural development, and youth empowerment.</td>
</tr>
<tr>
<td><strong>Student Empowerment Club</strong></td>
<td>Bridge the gap between the knowledge students learn in their majors and the skills needed by the job market.</td>
</tr>
<tr>
<td><strong>Translator Club</strong></td>
<td>Increase their community’s awareness and social connections regarding the role of translation and the translator.</td>
</tr>
</tbody>
</table>

### Clubs

- **Civil Engineering Club**
- **E-commerce Club**
- **Heritage Club**
- **Hullah Club**
- **E-negacy Club**
- **Math Club**
- **Nazaha Club**
- **Psychological Awareness Club**
- **Digital Media Club**
- **EdTech Club**
- **Data Science Club**
- **Cultural Club**
- **Book and Coffee Club**
- **Architectural Club**
- **Heritage Club**
- **Student Empowerment Club**
- **Translator Club**

*Note: The descriptions are brief and may require additional context for full understanding.*
Identify and Engage with Local Stakeholders

Stakeholders involvement policy

The Colleges and the Departments established an “Advisory Board” (AB), which is a selected group of experts representing industry and society. And a policy is created to provide guidelines for establishing the (AB) to help develop and maintain a strong partnership between PSU and relevant constituencies to improve the quality of the academic programs, and address the different needs of the market jobs.

CBA Advisory Board/Industrial Board

In an attempt to improve the CBA programs and provide the markets with qualified and skilled graduates, The CBA Council is advised by the CBA Industrial Advisory Board, which consists of business, government, and academic leaders as well as alumni from a cross-section of industries, government bodies, and higher education institutions in KSA.

MOU with Saudi National Committee for Workers Committees - Oct 2020

PSU, represented by the Global Small and Medium Enterprises Policies Network (GSPN), signed a memorandum of understanding with the National Committee of Labor Committees in the Kingdom (SNC/L20), according to which a joint framework will be developed between the two parties in the field of knowledge and research.

MOU with Saudi Cyber Security Authority- Dec 2020

PSU, represented by the Global Small and Medium Enterprises Policies Network (GSPN), signed a memorandum of understanding with the National Committee of Labor Committees in the Kingdom (SNC/L20), according to which a joint framework will be developed between the two parties in the field of knowledge and research.
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University Principles on Corruption and Bribery

Principles and Commitments on Organized Crime, Corruption & Bribery

The policy on principles on organized crimes, corruption and bribery intends to identify the different forms of corruption inside the university that affect modern society and its progress. The policy focuses on clear responsibilities of the faculty member and the program administrator defined in their job description.

Nazaha Executive Document (The National Anti-Corruption Commission)

The executive document on “Nazaha” (Integrity) is an initiative launched by the Saudi National Anti-Corruption Commission aiming at creating a work environment of honesty, integrity, transparency, and accountability by encouraging the universities to have “Nazaha Clubs” to raise awareness on the importance of educating young people on integrity and combat corruption.

Nazaha Club

Nazaha Club at PSU is the initiative of the Saudi National Anti-Corruption Commission in collaboration with Prince Sultan University (PSU) targeting the young students at the Saudi universities. The club activities focus on training and educating the youth on integrity norms and values.

The president of Nazaha Anti-Corruption Commission was invited by “Nazaha” Club to give a presentation on ‘ the Riyadh Initiative To enhance international cooperation to combat corruption, an initiative launched by Saudi Arabia, under the umbrella of The United Nations office of Drugs and crime.
Academic Freedom Policy

The policy refers to the academic freedom inside the academic institutions. PSU Teachers and students are free to inquire, to study, and to evaluate. The academic freedom in teaching and learning and research will serve the academy and the long-term interests of the society and will lead to the advancement of knowledge.

Women in Data Science (WIDS) Conference 2021

Women in Data Science (WIDS) Conference. It is a program in collaboration with Stanford university aiming at fostering interest and professional participation by women not only in data science but also in other fields, such as; engineering. The event is held at Stanford University and has 150 locations in the world. It aims at inspiring and educating data scientists and supporting women in the field. Prince Sultan University is a WIDS ambassador for Stanford.

PSU RIC Research Labs

Several Labs have been established by various PSU Colleges. The Labs is a group of researchers from diverse and integrated academic disciplines. The Lab members are free to make their strategic plans to conduct research work on various socio-legal and socio-economic issues.

According to PSU policy, each college should have at least one Lab based on certain research themes. College of Law has the following research themes approved by the RIC:
- Information Technology and Legal issues
- Climate Change, sustainability, and environmental law
- Commercial Law, Corporate Governance, and Islamic Law of Banking and Finance
Economic Sustainability of PSU in 2020-2021

Note: Data is not available from US in 2020; 2019 data is not available for Rider University.
Working with Government

The university works hand in hand with the government to provide expert advice and outreach at the national and local levels. In addition, the university undertakes policy-focused research in collaboration with government departments and provide a neutral platform for political stakeholders to discuss challenges.

Provide expert advice to government

Municipal Councils in the G20 Countries Symposium - Nov 2020

The Center for Local Governance at PSU held a virtual symposium titled “Municipal Councils in The G20 Countries” in cooperation with the Ministry of Municipal and Rural Affairs to discuss related insights and models of municipal government as part of PSU’s efforts to contribute to Saudi Arabia’s presidency of the G20 Summit.

MOU with Saudi National Committee for Workers Committees - Oct 2020

The Global Small and Medium Enterprises (SME) Policy Network (GSPN) at Prince Sultan University has signed a memorandum of understanding with the L20 and Saudi National Committee of Workers Committees (SNC) to provide scientific research and other expert advice to SNC on labor and employment in Saudi Arabia.

Center for Local Governance

The Center for Local Governance at Prince Sultan University is responsible for conducting research and studies, advisory services, conducting events, and designing specialized management training courses for a multitude of national governmental agencies. As well as hosting special governmental projects.
Policy and Lawmakers Outreach and Education

Webinar - Impact of the second wave of the #Covid_19 on global employment - Nov 2020

The #G20 #Labour20 in coordination with Prince Sultan University’s Global SME Policy Network (GSPN) Webinar on “The Impact of the Second Wave of #COVID19 on Global Employment” held on 4 November 2020, I had the honour of engaging some amazing panelists including: Professor Vaughan Scott, Professor Mohammad Nurunnabi CMA, SFHEA, FRSA, FAIA(Acad), CMBE, and Professor Gabriel Puron-Cid. Ms. Gabriella Kusz (Global Public Policy and Program Management, Chicago, United States; GSPN) was the moderator of the session.

Faculty of Engineering and the Association of Communication for helping techniques for people with disabilities - Nov 2020

Within the initiatives of Prince Sultan University (PSU) in community service, a meeting was held between the Faculty of Engineering and “Tawasul” (Connection) Association For Assistive Technologies for people with disabilities in order to cooperate in 3D printing and to benefit from the University’s factories output. A joint specialized workshop between the Faculty of engineering and “ Tawasul” Association will be organized.

Elite Program in Collaboration with Monsha’at

CSCEC partnered with Elite UK and Monsha’at to provide small and medium enterprises with skills and tools by PSU faculty members from College of Business who customized the Elite modules in order to provide Monsha’at “Small or Medium Enterprises General Authority” (SMEs) with the most relevant information possible to equip them to grow and succeed in our ever-changing economy which is stated in CSCEC mission and vision.
Participation in government research
UN-PSU Diagnostic Paper Launch Event (UNDP) - Dec 2020

The Report summarizes the economic and social landscape of KSA with a focus on the impact of COVID-19 and the oil price crisis, utilizing the leave no one behind (LNOB) lens, and further enlarges the set of possible UN support and policy recommendations, including the ones already included in the earlier UN in KSA COVID-19 Capacity Brief. This assessment, analysis and policy recommendation set, with a particular focus on the most vulnerable groups, is based on the five development pillars highlighted in the UN Framework for Immediate Socio-economic response to COVID-19...

Webinar - Impact of the second wave of the #Covid_19 on global employment" - Nov 2020

The #G20 #Labour20 in coordination with Prince Sultan University’s Global SME Policy Network (GSPN) Webinar on "The Impact of the Second Wave of #COVID19 on Global Employment" held on 4 November 2020. I had the honour of engaging some amazing panelists including: Professor Vaughan Scott, Professor Mohammad Nurunnabi CMA, SFHEA, FRSA, FAIA(Acad), CMBE, and Professor Gabriel Puron-Cid. Ms. Gabriella Kusz (Global Public Policy and Program Management, Chicago, United States; GSPN) was the moderator of the session.

Center for Local Governance
The Center is the first think tank in the Kingdom of Saudi Arabia specialized in local governance. The center is recognized as the first non-profit research center, affiliated with Prince Sultan University, that combines theory and practice, making it a partner for decision makers in setting goals.
Neutral Platform to Discuss Issues
COE Meeting with Saudi Human Rights Authority - Oct 2020

The College of Engineering Dean and Vice Dean at Prince Sultan University has met a delegation from the Saudi Human Rights Commission to discuss issues related to the education of women in the field of engineering and steps taken by the university towards creating an inclusive engineering environment for women.

United Nations Development Program Visit

Prince Sultan University welcomed a delegation from the United Nations Development Program (UNDP) led by the Resident Representative of the program in the Kingdom of Saudi Arabia, Dr. Adam Polokos; To discuss details of joint cooperation between the university and the program.

SAIP visit - Sept 2020

A delegation from the Saudi Authority for Intellectual Property (SAIP) Headed by His Excellency Dr. Abdulaziz Al-Suwailem, CEO of the Commission, has visited Prince Sultan University and met with the university’s president to discuss issues related to intellectual property and aspects of cooperation in the areas related to the topic.
Graduates in Law and Enforcement Related Courses

Reference: Academic year 2020
Relationships to support the goals 

Relationships with NGOs and govt for SDG policy

PSU has both direct and indirect involvement in, or input into, national government SDG policy development. Each year PSU submits relevant data to Ministry of Education and ETEC.

A global think tank is helping policy makers tackle the impact of COVID-19 on SMEs

1st December 2020

Author: Dr. Mohammed Al-Husaini, PhD, Dir. SMEs, PSI, Oman, Oman

Businesses around the globe have been hit hard by the COVID-19 virus, requiring many governments to step in with stimulus packages to help them survive. The Organization for Economic Co-operation and Development (OECD) reported the death of 1 million SMEs worldwide in the first half of 2020. The International Labour Organization (ILO) said it estimated the job losses of the sector on par with from the financial crisis of 2009. However, the impact on SMEs around the world is not being felt the same way.

According to the International Trade Centre (ITC), SMEs are the main engine of economic growth and development. They are often the most vulnerable to the impacts of a crisis, as they have less access to capital and technical support. The ITC has created a global platform to gather SME data from across the world. The Global SME Policy Network (GSMPN) is a network of national and international organizations that are working together to improve SME policy and support.

UNESCO – Futures of Education

Futures of Education
LEARNING TO BECOME

PSU Signed an Agreement with L20 as part of G20 and SNC
Cross sectoral dialogue about SDGs

PSU organizes international conferences and include topical SDG issues. Policy forum and discussion involving government/NGOs/international stakeholders.

Robotic & Internet of Things Lab (RIOTU) in the 8th run of the International Conference of Islamic Applications
PSU's Artificial Intelligence & Data Analytics Club (AIDA) held a conference titled “Women in Data Sciences (WIDS)”

The impact of the second wave of the COVID-19 on global employment
International collaboration data gathering for SDGs

PSU has international collaboration with several universities to gather or measure data related to the SDGs.

Are you a University Student?
Help us establish a precise picture as to how the COVID-19 pandemic affected university students so that we can provide policy guidance for educational institutions, governments and international organizations that reflect the reality of the students of today.

Global Survey: Impact of COVID-19 on Small and Medium Enterprises (SME)

New UCL health-focused business school and Saudi business school unite to revolutionise global health

New UCL health-focused business school and Saudi business school unite to revolutionise global health.
Collaboration for SDG best practice

PSU has international collaboration and research. In research, we focus on review comparative approaches and develop international best practice on tackling the SDGs

Research MOU between University of Sonora (UNISON), Mexico and Prince Sultan University

This Memorandum of Agreement between Prince Sultan University, Saudi Arabia and the University of Sonora (UNISON), Mexico were signed on 26 October 2017. Dr. Ahmed S. Yamani signed the MOU and expressed the opinion this advanced level research cooperation will strategically foster research effort of Prince Sultan University. The MOU highlighted the following areas: Exchanges of faculty and other research and technical specialists for short term and, as funding and other circumstances permit, longer-term visits; The design of collaborative research projects, including the development of formal proposals for funding of such research; Joint Research Conference; Benchmarking data; and Student exchange programs implemented as external funding for partial or full support of such exchanges at the graduate and undergraduate level is available.

PSU GEPN’s partnership with Coursera

The Implementation of Sustainable Development Goals in “BRICS” Countries

Article

The Implementation of Sustainable Development Goals in “BRICS” Countries

Sajjad Ali 1, Talib Hussain 1, Geoliang Zhang 1,*, Mohammad Nurunnabi 2,3, and Bengjian Li 1,4

1 School of Media and Communication, Shanghai Jiao Tong University, 800, Dongchuan Road, Minhang District, Shanghai 200240, China; sajjad@sjtu.edu.cn (S.A.); talibhussain@sjtu.edu.cn (T.H.)
2 Department of Accounting, Prince Sultan University, F.O. Box 66630, Riyadh 11586, Saudi Arabia; mohammad.nurunnabi@psu.edu.sa or m.nurunnabi@psu.edu.sa
3 St. Anthony’s College, University of Oxford, 62 Woodstock Road, Oxford OX2 6PF, UK
4 Correspondence: zhang@shu.edu.cn or mdip@edu.com (C.F.); li@shu.edu.cn (B.L.); Tel: +86-136-0184-3599 (C.F.); Tel: +86-136-6393-5680 (B.L.)

Received: 23 June 2018; Accepted: 14 July 2018; Published: 18 July 2018
Collaboration with NGOs for SDGs

PSU has collaboration with NGOs to tackle the SDGs through: student volunteering programmes, research programmes, or development of educational resources. Students participate in local and international forums. Our researchers also collaborate with international researchers focusing on SDGs.

Student Volunteering Programmes

YDA Club Accomplishments

Namaa Club Accomplishments

Masks Donation
Research Programmes

National Technology Development Program (NTDP)’s Tech Research Challenge

The National Technology Development Program (NTDP) is running an initiative called the Tech Research Challenge and PSU is one of the few universities in the kingdom that is participating in the challenge. This initiative brings together companies, universities, and research centers through a competition.

1. The competition involves companies presenting practical technology challenges.
2. Universities and research centers then take up those challenges, assembling work teams of students and researchers to find solutions.
3. With the best winning awards and accomplishment certificates.

Robotics & Internet of Things Lab (RIOTU) took first place in a competition by King Abdullah University for Sciences & Technology

Robotics & Internet of Things Lab (RIOTU) took first place in a competition by King Abdullah University for Sciences & Technology. The team participating in the competition “Ideas & Solutions for Hajj & Umrah 2020” consisted of RIOTU’s director Dr. Anis Koubaa, Dr. Adel Ammar, Dr. Mohammed Abdelqader, Bilal Judairah, Anas Kunohash, and Yasser AlHabshi. All of whom made first place regarding Transfer and Transportation.

Research & Initiatives Center at PSU and Business Incubator (i-be) released the “PSU BI” Program

Research & Initiatives Center at PSU and Business Incubator (i-be) released the “PSU BI” Program in an effort to encourage initiative in male & female students as it pertains to the business field.
Development of Educational Resources
PSU signed an MoU with Albir Charitable Organization in support of Community Service

PSU’s collaboration with Monsha’at and Elite
Education for the SDG’s
Our team

PSU Sustainability Higher Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Ahmed Yamani, President</td>
<td>Co-chair</td>
</tr>
<tr>
<td>Dr. Mohammad Nurunnabi, Aide-to-the-President, Ranking and</td>
<td>Chair</td>
</tr>
<tr>
<td>Internationalization – Chair, Accounting Department of CBA</td>
<td></td>
</tr>
<tr>
<td>Dr. Saad Al-Rwita, Vice President, Administrative and Financial</td>
<td>Member</td>
</tr>
<tr>
<td>Affairs</td>
<td></td>
</tr>
<tr>
<td>Dr. Abdel Hafez Feda, Vice President, Academic Affairs</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. Heba Khoshaim, Vice President, Campus for Women</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. Mohammad Aljibreen, Deputy Vice President, Academic Affairs</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. Emna Chikhaoui, PSU Compliance Officer</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. Jolly Sahni, Director, Jubilation Office</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. Tahira Hoke, Aide-to-the-President – Director, EAAC-CW</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Victor Mendoza, Director, EAAC – CW</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Lester Bello, Programmer, PRMC</td>
<td>Member</td>
</tr>
</tbody>
</table>

PSU Sustainability Steering Committees

<table>
<thead>
<tr>
<th>SDG 5 – Gender Equality</th>
<th>Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dr. Heba Khoshaim</td>
<td></td>
</tr>
<tr>
<td>2. Dr. Wafa Alnasrullah, Co-Chair</td>
<td></td>
</tr>
<tr>
<td>3. Dr. Tanzila Saba</td>
<td></td>
</tr>
<tr>
<td>4. Dr. Dina El-Dakhs</td>
<td></td>
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<tr>
<td>5. Ms. Saima Rashid</td>
<td></td>
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<tr>
<td>6. Ms. Arooj Yaswi</td>
<td></td>
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<tr>
<td>7. Ms. Hanan Alsubai</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SDG 8 – Decent Work and Economic Growth</th>
<th>Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dr. Jolly Sahni</td>
<td></td>
</tr>
<tr>
<td>2. Dr. Yazeed Alfakhri, Co-Chair</td>
<td></td>
</tr>
<tr>
<td>3. Dr. Roaa Atiyyeh</td>
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<td>4. Ms. Hafsah Alekrish</td>
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<td>5. Mr. Maruf Rahman</td>
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<td>6. Ms. Roohi Jan</td>
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<td>7. Mr. Abdulaziz Obaid</td>
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<th>SDG 16 – Peace, Justice and Strong Institution</th>
<th>Chair</th>
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<tr>
<td>1. Dr. Emna Chikhaoui, Chair</td>
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<td>2. Dr. Abdulaziz Ahmed Altuwajri, Co-Chair</td>
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<td>3. Dr. Rakan Alyamani</td>
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<td>4. Dr. Deema Alfakhri</td>
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<td>5. Dr. Samaher Falatahan</td>
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<td>6. Mr. Bryan Morales</td>
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<td>7. Mr. Feras Mahfoos</td>
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<th>SDG 17 – Partnerships for the Goals</th>
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<td>1. Dr. Mohammed Nurunnabi, Chair</td>
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<td>2. Dr. Fahda Altonayan, Co-Chair</td>
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<td>3. Dr. Hazem Abu-Farsakh</td>
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<td>5. Dr. Umashankar Subramaniam</td>
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<td>6. Dr. Tahira Hoke</td>
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<td>7. Ms. Muneera Aldhubaiban</td>
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PSU’s commitment to SDG 2030

PSU is committed to United Nations Sustainable Development Goals (SDGs) through effective institutional resource management, innovative teaching and learning, research, national and international partnerships, continuous studies, and outreach. PSU shall undertake the following activities: form higher and steering committees, evaluate each SDG, formulate and develop related SDG policies, conduct awareness campaigns to the PSU community, establish a sustainability office, identify the SDGs related to each college, program, and course, and lab centers at PSU, and implement sustainability-related initiatives.

Vision

Prince Sultan University strives to support Saudi Arabia’s Vision 2030 and the United Nations Sustainable Development Goals (SDGs) by paving the way for higher education in KSA and Middle East.

Mission

Supporting the Saudi Arabia’s Vision 2030 and the PSU’s strategic directions, PSU aligns its mission with SDGs by providing quality education, sustainability initiatives, lifelong learning, scientific research, and community service.