



OVPR RESEARCH Newsletter

Kuwait University

Nov. 2017

RS Honors Distinguished Researchers, Graduate Students, Patent Recipients & Scientific Posters Awardees

Spirit of creative culture dominates RS multi-awards ceremony



Scientific excellence and advancement cannot be achieved in isolation and requires sustained efforts, collective input and teamwork of all sectors and faculties in a harmonious blend to achieve the ultimate goal through a clear plan and strategy... *Prof. Hussein Al-Ansari*

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RS Executive Team

CONTENTS

- ❑ 14% growth in funded research...a promising development – VPR.....3
- ❑ KU-KPI Seminar on “Current Challenges”.....4
- ❑ RIG Orientation Session, 2017.....6
- ❑ RS Receives Abdulhameed Shoman Foundation Delegation.....8
- ❑ RS Honors Distinguished Researchers in a Multi-Awards Ceremony.....10
- ❑ Distinguished Research Series - 13.....14
- ❑ OVPR’s Latest Publications.....18
- ❑ SPSS Workshop 2017.....24
- ❑ Elsevier Delegation Visits OVPR.....26
- ❑ RS Receives King Saud University Delegation27
- ❑ Inauguration of Equate InnovationCenter.....27
- ❑ RS Circulars on Forms and Expenditure Settlement.....28
- ❑ Latest Patent Winner(s).....29
- ❑ Statistics on Faculty Research (Sept. 1, 2016 - Aug. 31, 2017).....30



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Research

OVPR Newsletter Nov., 2017

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OVPR Research Newsletter, Nov. 2017*

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VPR's MESSAGE

RS greets executive and faculty community at the onset of new academic year 2017/18

**An unprecedented
14.1 % growth in
faculties collective
participation in
Funded research...
a promising
development**



Prof. Taher A. Al-Sahhaf
Vice President for Research

The Research Sector (RS) conveys its greetings and a warm welcome to the executive and faculty community at the onset of the new academic year 2017/18, with a commitment to meet researchers aspirations, and enhance their participation in funded research. For the RS, the year has indeed begun on a promising note with faculties collective participation in funded research recording an unprecedented 14.1% growth, reaching a gross total of 778 projects, over 682 projects last year. This signals the emerging dynamics in institutional research, with sheer volume of projects suggesting faculties growing confidence in the grant support system, a development which RS would continue to nurture and enhance.

Availability of sufficient budget a prime need for researchers to achieve maximum value from their well-designed studies that could generate distinguished outputs, lead to inventions, and lay the framework for entrepreneurial culture

RS to nurture postgraduate talent for encouraging new ideas that could spur creative and startup ventures

The growth factor impacted all spheres of research, enlisting 355(45.6%) *ongoing projects*, 237 (30.5%) *completed*, and 186(23.9%) *newly submitted under-process proposals* for grant support. To sustain this growth, it is imperative that RS explores and develops a resource culture to achieve fiscal adequacy so that faculties research support needs could be met, and their potentials harnessed for high

quality, advanced, innovative and collaborative ventures.

Since RS is strategically inclined towards broadening faculties participation in funded research, generating additional resources would be a challenge and an opportunity for RS to seek new avenues and build collaborative ties that enhance research cooperation and involve researchers

in addressing original, emerging and scientifically challenging issues through interdisciplinary input, multi-expertise and resource-sharing to achieve outputs of international credibility, discovery of new knowledge and contribution to scientific advancement.

The fundamental requirement of all projects, however, remains finance, affecting the entire research process, with availability of sufficient budget being the prime need for researchers to achieve maximum value from their well-designed studies that could result in distinguished outputs, lead to inventions, and lay the framework for entrepreneurial culture. The current academic year would thus see RS increased focus on enhancing its resource base to meet the requirements of scientific innovation, invention and discovery, for which apart from faculty research activity, postgraduate talent would also be nurtured to encourage new

KU-KPI SEMINAR

RS organizes a seminar on “Current Challenges and Future Prospects for the Oil Industry”

Within the framework of Kuwait University (KU) and Kuwait Petroleum International’s (KPI) Memorandum of Understanding (MOU), the Research Sector (RS) recently organized a seminar entitled, “*Contemporary Challenges and the Future of Petroleum Industries*,” at the university premises. Held Under the Patronage of Prof. Taher Al-Sahhaf, Vice President for Research, amidst the presence of KU President, Prof. Hus-sain Al-Ansari, the seminar’s attendees included Vice President’s Assistants, faculty Deans, Vice Deans and faculty members keen on keeping pace with developmental challenges confronting oil, energy and petroleum industries, including perspective

Under the Patronage of Vice President for Research Seminar held within the framework of KU-KPI Memorandum of Understanding for enhancing cooperation & advancing scientific research

Seminar’s Key Speaker, Dr. Ahmad Al-Qattan, provides an enlightening overview of the dynamics and realities of contemporary challenges confronting the oil, gas and petroleum resources



▲ A view of seminar participants

and future prospects of this vital energy resource.

Welcoming the distinguished gathering, Prof. Taher said that the seminar marked a significant step in carrying forward the KU-KPI collaborative process in enhancing cooperation and advancing scientific research by supporting priority research and students’ projects in the oil sector, as well as rendering academic support through effective utilization of faculty members expertise in the areas of oil and petroleum studies. Introducing the seminar’s key speaker, Prof. Taher said that Dr. Ahmad Al-Qattan, Head, Department of Quality Management

of Petroleum Systems and Studies, and KPI representative, was a seasoned expert, well-versed in corporate planning and risk management concerning oil, gas and petroleum resources, and invited him for an enlightening talk on the subject.

Speaking on the dynamics and realities of contemporary challenges that the petroleum industry was passing through, Dr. Al-Qattan presented a brief overview of the fluctuating petroleum prices and demand for petroleum products, as well as instability of global economy, financial market speculations and effect of political factors. He also referred to technological developments in oil exploration and production, including the environmental impacts following the historic 2015 Paris Treaty on climate change.

Continuing further, Dr. Al-Qattan said that crude oil, the naturally occurring non-renewable and rich source of energy was composed of hydrocarbons, and was often called “black gold,” a widely traded commodity discovered during the industrial revolution, and its industrial uses were first developed in the 19th century.



▲ KU President and Vice President for Research presenting a memento to Dr. Qattan, also a line up of key personalities at the seminar

► *VPR's Message ... (From P. 3)*

ideas that could spur creative and startup ventures, energizing postgraduate studies and research at Kuwait University.

Efforts would also be on developing new alliances to enhance RS external resource muscle by networking inter-institutional alliances and agreements with regional and global research institutions, opening new paths for innovative and multidisciplinary studies. In this regard, some of RS recent agreements aim at enhancing scientific and research cooperation worldwide, for which MOUs have been signed with Northeastern University, Qatar University, KPI, PAAET, and Equate, as part of a strategy to cultivate new partnerships through formalized agreements for globalizing institutional research and improving KU's international visibility, ranked status and prestige.

The infrastructural capacity is also being developed, and insights

RS looks forward with new hope and aspirations that together with faculties research vibrancy, creative spirit, supportive facilities and technology competence, scientific research at Kuwait University would grow, improve and excel..!

focused on lab and technology assets to create a facilitative environment for researchers to accomplish high quality analytical and experimental research that yields internationally competitive outputs, publishable in top ranking JCR journals with an impact factor, an essential requirement for elevating Kuwait University's international standing and presence. As the year progresses, RS is headed towards an intense events cycle, with a line-up of RIG orientation session 2017/18 (Oct. 23), Funding Committee meeting for grant awards (Oct. 30), Multi-awards ceremony for honoring distinguished researchers (Nov. 6), SPSS session and scientific poster day events for humanities and scientific faculties, etc., requiring RS simultaneous involvement on multi-fronts. Beyond these activities, RS greatest

challenge would be on bringing together researchers within the fold of funded research, and building bridges across interdisciplinary divide to benefit from faculties potentials and expertise in boosting scientific creativity, achieving internationally recognized research outputs that could be marketed and invested in the service of society and for human benefit. Towards this ultimate purpose, RS looks forward with new hope and aspirations that together with faculties research vibrancy, creative spirit, supportive facilities and technology competence, scientific research at Kuwait University would *grow, improve and excel*. With these aspirations, I wish you all a rewarding and successful year ahead.

Prof. Taher A. Al-Sahhaf
Vice President for Research

► *KU-KPI Seminar ... (From P. 4)*

A compelling need exists for envisioning a strategy for acquiring secured energy supplies at affordable prices

He also dwelt through the implications of this energy source, as well as the compelling need for envisioning a strategy for acquiring secured energy supplies at affordable prices as long term strategy, while highlighting the global scenario concerning this valued energy resource, further demonstrating it through relevant visuals.

Winding up his presentation, Dr. Al-Qattan speculated that the oil market will reach stability after the drop in demand with a continuous dependence on oil and gas, around 2040, together with

simultaneous increase in renewable and alternative energy resources, as well as finding solutions that minimize carbon emission. While foreseeing a shift on oil demand from the West to East Asian countries, Dr. Al-Qattan further anticipated increased investments in oil refining and petrochemical industries. The seminar, held on Wednesday, November 1, 2017, at 12:30 pm, at the Conference Hall (119), Administrative Building, Khaldiya campus, culminated in an interactive question-answer round, and ended with KU President, Prof. Al-Ansari, and

Vice President, Prof. Taher honoring Dr. Ahmad Al-Qattan with a memento in appreciation and recognition of his distinguished efforts and enlightening presentation. The event concluded with a line-up of key executives and participants for a commemorative photograph.



► **Presentation outlines Oil Industry Challenges**

RIG SESSION 2017

Vice President for Research outlines key elements of KU research policy, programs and procedures for advanced and innovative research

In carrying forward its annual commitment of introducing new Kuwaiti faculty members to the prevailing scientific environment at Kuwait University (KU), the Research Sector (RS) organized an orientation session on Research Initiation Grants (RIG) on Oct. 23, 2017 at 12.30 PM. at the University Conference hall (119), Administrative Building, Khalidiya campus. The session held Under the Patronage of Prof. Taher Al-Sahhaf, Vice President for Research, amidst the presence of his Assistants, Prof. Yousuf Garashi and Prof. Haider Behbehani, attracted a distinguished gathering of faculty members and newly appointed Kuwaiti faculty on the threshold of their academic and scientific journey at Kuwait University. Welcoming the new Kuwaiti faculty members, Prof. Taher wished them success in their scientific endeavors and benefit from resources and facilities available for advanced and innovative research in the realization of their research ambitions and goals.

RIG 2017 Orientation Session attracts participation of 43 new Kuwaiti faculty members from across KU faculties



▲ VPR addressing participants at the RIG Session 2017

RS organizes Research Initiation Grant (RIG) session to orient new Kuwaiti faculty members to the prevailing scientific environment at KU and opportunities available for pursuing & accomplishing their research goals

With these opening words, Prof. Taher outlined key elements of scientific research at KU through a presentation that focused on familiarizing new Kuwaiti faculty members at Assistant Professor's level to the RS research support system and facilities for pursuing research, with RIG grants offering an ideal opportunity for initiating their research activity. For the new Kuwaiti faculty members, RIG grants apart from being an incentive award, offered a dynamic platform for pursuing their research interests and transforming their ideas into creative ventures through the submission of proposals within the framework of RS grants support

system. The successful completion of RIG projects eventually provide the basis for researchers to move ahead in the pursuit of more advanced, comprehensive studies as effective and active participants in mainstream research, contributing their talent and energies in advancing scientific research through their caliber and creative endeavors.

Continuing further, Prof. Taher said that research thrives on ideas involving researchers in exploring new areas of research that may result in discovery of new knowledge, inventions and products of scientific research. Sustenance of such research activities require supportive facilities

► RIG Session 2017 ... (From P.6)

and environment that RS provides in facilitating researchers to accomplish their research goals by availing grants and resources for research implementation. Explaining that the entire research process is accomplished within the framework of research support rules & regulations, Prof. Taher introduced the RS executive cadres responsible for overseeing research implementation, analysis and external collaboration. He further explained the provision of ten types of research grants, funding levels, budgetary categories, research processing, project reports, productivity, and publishing of research outputs in international refereed journals with an impact factor. RS web-based and database searchers, as well as incentives, awards and rewards for distinguished research were also demonstrated.

Also presented were the electronic resources, e-manual, online submission of proposals, research-related forms and requirements concerning submission of research progress and final reports on project completion. The objectives of external research collaboration and consultation were outlined, including recent collaborative agreements with several external institutions for joint

RIG grants an ideal platform for new Kuwaiti faculty members to initiate their active participation in KU research



▲ Executive Panel responds to participants queries at the Question/Answer round

Held on
Oct. 23, 2017,
RIG session aimed
at new Kuwaiti
faculty members
at Assistant
Professor's level

studies and research. Highlights were also on forthcoming scientific posters events, workshops, seminars and activities as RS annual commitments involving faculties active

latest advances in scientific research at KU.

Overall, the presentation provided an insight into RS research support activities and facilities for grant awards, including provision of RIG grants especially aimed at new Kuwaiti faculty members, encouraging their participation in research as a start-off activity, prior to moving towards more advanced research in basic and applied sciences, and in arts and humanities. The RIG session 2017 enlisted the participation of 43 new Kuwaiti faculty members from across KU faculties, who gathered first-hand information on research policy, provision of RIG incentive grants and associated requirements for submission of proposals on standard RIG application form, available on OVPR/RS websites. The session culminated in an interactive question-answer round, with RS panel of Vice President and Assts. Vice Presidents addressing the participants queries and concerns on various aspects of the grant support system, privileges, services and facilities for research awards, RIG grants and associated mechanism and facilities.

Research Sector | Office of the Vice President for Research | Kuwait University
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قطاع الأبحاث
Research Sector

سلفة البحث التمهيدي
Research Initiation Grant (RIG)

اللقاء التتويري
Orientation Session, 2017

Prof. Taher Al-Sahhaf
Vice President for Research
October 23, 2017

SHOMAN FOUNDATION DELEGATES VISIT RS

KU strategically inclined towards encouraging innovation and enhancing research... *Prof. Hussein Al-Ansari*

Kuwait University President welcomes a high profile visiting delegation from Abdulhameed Shoman Foundation from the Kingdom of Jordan



▲ KU President and top executives felicitating a high profile visiting delegation from Abdullhameed Shoman Foundation

A high profile visiting delegation from Abdulhameed Shoman Foundation, Kingdom of Jordan, recently visited Kuwait University, and was received by Kuwait University President, Prof. Hussein Al-Ansari, on Wednesday, September, 27, 2017, for sharing thoughts and discussions on *scientific innovation, applied research and cooperation*. The meeting was held amidst the presence of KU's top executives, Prof. Esam Alawadhi, Vice President for Academic Affairs, Prof. Adel Alhusainan, Vice President for Planning, Prof. Jasim Ramadan, Vice President for Academic Support Services, Prof. Taher Al-Sahhaf, Vice President for Research, and his Assistants, Prof. Yousif Garashi and Prof. Haider Behbehani. Also present were Dr. Mustafa Marafi from Physics Department, Mrs. Dheyaa Alfaris, Head, Public Relations Department, and Ms. Yousra Alasousi, Head, RS Re-

search Services department. The three-member visiting delegation included Mr. Abdulrahman Almasri, Head of Leadership Concept and Secretary General, Abdulhameed Shoman Prize, Mrs.

in which the Foundation has enormous experience, and looked forward to cooperation with the Foundation at the scientific level in future cycles of innovation, as well as encouraging applied research that addresses community needs. Continuing further, Prof. Al-Ansari said that Kuwait University is driven towards expanding the sphere of its scientific and inter-institutional cooperation, and a threefold-joint cooperation is on the anvil for bringing together KU, KFAS and Abdulhameed Shoman Foundation, with administrative steps to oversee specialized courses and enhancing scientific research.

Discussions center on scientific innovation, applied research and cooperation

Ruba Alzubi, Head, Scientific Research Program, and Mr. Muhannad Alratrot, Head, Public Relations department. In addition, Mr. Mansour Hamed, from Kuwait Foundation for the Advancement of Sciences (KFAS) also attended the meeting.

Welcoming the delegates, Prof. Al-Ansari said that KU was strategically inclined towards encouraging innovation and enhancing research, the areas

Recounting KU's accomplishments, Prof. Al-Ansari said that more than ten KU researchers have been the winners of Shoman awards over the past years, reflecting KU's pioneering role and accomplishments in the field of scientific research. "We hope that these awards will be further promoted with more Kuwaiti researchers applying and winning these awards," he added. Speaking on cooperation, Prof. Al-Ansari drew attention to another di-

▶ *Visiting delegaion from Abdulhameed Shoman...(From P.8)*

mension concerning the exchange of scientific referees, a valued resource which both institutions have for refereeing of scientific and research awards competitions. Commending on Kuwaiti researchers competence for bringing honors and laurels to Kuwait by winning many Arab and international awards, he encouraged them to continue participating in the Abdulhameed Shoman Foundation's future awards.

An introductory presentation followed thereafter, with Mrs. Ruba Alzubi, Head, Scientific Research Program, outlining the Foundation's scientific and literary awards and other activities. Referring to the Foundation's establishment in 1978 by the Arab Bank, she said that it marked a pioneering step that contributed in establishing a beacon of knowledge and creativity in Jordan and the Arab world. Since then, the Foundation has consistently contributed towards the development of Arab societies through knowledge, research and dialogue.

She also mentioned that the Foundation's mission is to invest in knowledge, culture and social creativity as effective contribution in developing Arab societies through its three integral pillars:

A threefold-joint cooperation on the anvil for bringing together KU, KFAS & Abdulhameed Shoman Foundation for enhancing scientific research



▲ **Top ranking executives from KU and Abdulhameed Shoman Foundation strategically inclined towards encouraging innovation and enhancing research**

leadership concept, literature, arts and community innovation. Elaborating further, she said that in the field of leadership concept, the Foundation has multiple awards and activities, which include Abdulhameed Shoman Award for Arab researchers, Abdulhameed Shoman Fund for scientific research support, Abdulhameed Shoman Cultural Forum, and the Education and Science Program.

Speaking on the beneficiaries of Ab-

dulhameed Shoman Award. she said that as many as 412 Arab researchers have won these awards, while Abdulhameed Shoman Fund has provided more than 1.5 million dinars for 97 scientific research papers of Jordanian researchers. Since its inception, the Abdulhameed Shoman Forum has hosted more than 1600 seminars and lectures from different Arab countries, enlisting the presence of more than 180 participants per week, in addition to approximately 100 documents published on the subjects discussed during these seminars. Also, a total of 29 Arab writers have been the recipients of Abdulhameed Shoman Award for children's Literature, and the Abdulhameed Shoman Foundation's library registers almost 250,000 visits annually.

Emphasizing that the Abdulhameed Shoman Award was dedicated to Arab researchers, she said that it was the first Arab award for scientific research dedicated to Arab researchers since 1982 with the aim of supporting scientific research and promoting it throughout the Arab world. The key objective is to



▲ **Visiting delegation from Abdulhameed Shoman Foundation showing mutual interest in advancing research in an interactive session with the Vice President for Research**

MULTI-AWARDS CEREMONY

Under the Patronage of KU President Research Sector organizes an honoring ceremony to felicitate a distinguished community of faculty researchers and graduate students for their outstanding research accomplishments

The spirit of creative culture dominated the annual multi-awards ceremony, organized by the Office of Vice President for Research (OVPR), providing a befitting platform for honoring a distinguished community of faculty members, teaching assistants and graduate students for their creative endeavors and accomplishments in basic and applied sciences, and in arts & humanities. Due recognition was also accorded to recipients of US registered patents, and winners of top-ranking posters in humanities and scientific streams, qualifying them for requisite honors and awards. Underlying the ceremonial event was RS committed efforts and resolve in promoting the dynamics of creativity, discovery and excellence in institutional research, the competitive outcome of which attains universal recognition as inventions or published research increasingly appearing in top-ranking journals of international repute. Such

“Scientific excellence and advancement cannot be achieved in isolation and requires sustained efforts, collective input and teamwork of all sectors and faculties in a harmonious blend to achieve the ultimate goal through a clear plan and strategy” ... *Prof. Hussein Al-Ansari*



▲ KU President addressing Distinguished Researchers at the Multi-Awards Ceremony

“Spirit of creative culture dominates RS annual multi-awards ceremony”

attainments symbolize the advancing realms of institutional research, presenting a progressive outlook of RS

Recognition and honors bestowed on winners of academic year 2016/17 awards in the categories of Distinguished and Best Young Researchers, Graduate Students Prize, Patent Recipients, and Scientific Posters Awardees

strategy of globalizing institutional research through effective involvement of faculties' expertise and creative potential in pursuing advanced and innovative research, the net implications of which are visible in quality and excellence of institutional research, duly applauded, recognized and awarded each year.

It is largely within this progressive frame that the annual awards ceremony was held under the distinguished Presence and Patronage of Kuwait University President, Prof. Hussein Al-Ansari, hosted by the Vice President for Research, Prof. Taher Al-Sahhaf, with the event attracting an elite gathering of Assts. Vice President, Deans, Vice Deans for Research, faculty members, researchers and award winners. Welcoming the distinguished gathering, Prof. Taher highlighted the significance of awards and congratulated the award winners for their creative endeavors and efforts that led to their winning the scientific awards. He also encouraged them to capitalize on their creative potential and seek continuous evolution in their scientific journey towards greater recognition and achievements.

► *Multi-Awards Ceremony ... (From P. 10)*

Speaking on the ceremonial platform, Prof. Taher thanked Prof. Hussein Ansari, President, Kuwait University, for his encouragement and support in advancing institutional research, and in sponsoring the awards ceremony for honoring distinguished researchers for their scientific attainments, as well as his keenness in creating an environment that stimulates innovation, leads to recognition and boosts Kuwait University's international presence and ranking. Sharing his thoughts on the occasion, Prof. Hussein said, "the goal we are aiming to achieve is Kuwait University's academic and scientific advancement, and to direct our efforts and energies towards promoting and enhancing institutional global standing and ranking." This target is our topmost priority, and is receiving utmost administrative attention and support. He further said that the implications of this objective requires our sustained efforts and application of scientific methods for identifying and monitoring critical performance indicators that ensure the implementation of institutional strategic plan. He further stressed that scientific excellence and advancement cannot be achieved in isolation and requires sustained efforts, collective input and teamwork of all sectors and faculties joining hands in a harmonious blend that networks all efforts in achieving the ultimate goal through a clear plan and strategy.

With these inspiring words, Prof. Hussein congratulated the award winning researchers and wished them continuous progress in their scientific endeavors in the years ahead. He also complemented the Office

Ceremonial event a marker of RS committed efforts and resolve in promoting the dynamics of creativity, discovery and excellence in institutional research



▲ **A line up of Award Winners in various categories**

of Vice President for Research and Research Sector for sustained efforts



▲ **The Award Winners**

in providing an encouraging platform, resources, infrastructure and facilities for researchers to realize their scientific ambitions and research objectives.

Referring to Kuwait University's proud legacy, Prof. Hussein said that KU has a rich and inspiring history of scientific achievements in diverse fields, a legacy which is continuing to prosper and grow with the addition of researchers' newer scientific accomplishments, inventions and attainments, bringing greater laurels and glory to Kuwait University. Building on this legacy remains our driving force and a continuous challenge that we are endeavoring to enhance and accomplish. Appreciating the distinguished researchers for their efforts and attainments, he once again commended all award winners, inventors and graduate students as a valued reservoir of talent that merits institutional appreciation and applause.

With these concluding words, year 2016/17 winners in various categories were announced, awarded and honored. (For Award recipients list turn to page 12).

► *Multi-Awards Ceremony ... (From P. 11)*

Winners of Researchers Awards, 2016/17

A. Distinguished Researcher Awards

Basic & Applied Sciences

Prof. Suhail Ahmad Department of Microbiology,
Faculty of Medicine

Arts and Humanities

Prof. Sajjad UR Rehman Department of Library
& Information Science
Faculty of Social Sciences

Dr. Mohamad Awad Department of Computer
Engineering
Faculty of Computing
Sciences & Engineering

Arts and Humanities

Dr. Majdi Quttainah Department of Marketing &
Management
Faculty of Business Admin-
istration

Dr. Bader Alhashel Department of Finance &
Financial Institutions
Faculty of Business Admin-
istration

B. Best Young Researcher Awards

Basic & Applied Sciences

Winners of Graduate Students Project Prize

C. Graduate Students Project Prize

a. Basic & Applied Sciences-Master's Degree

Hessa Ali-Mulla Department of Chemical
Engineering
Faculty of Engineering &
Petroleum

Aisha Abdulla Almutairi Department of Computer
Science
Faculty of Science

Rana Waleed Alaskar Department of Computer
Engineering
Faculty of Computing
Sciences & Engineering

Samah Ahmad Department of Physiology
Faculty of Medicine

b. Arts and Humanities -Master's Degree

Fatma Almutairi Department of Curriculum
& Teaching Methods
Faculty of Education

Recipients(s) of US Registered Patents

D. US Registered Patent Awards (2016/17)

Dr. Osama Al-Hawaj, Department of Mechanical
Engineering
Faculty of Engineering
& Petroleum

Patents awarded for following two inventions:

1. "Drive System for Wind Turbine with Contra-
Rotating Generator"
(Patent No.: US 9709027 B2 dated July 18, 2017)

2. "Combined Pump and Energy Recovery Turbine"
(Patent No.: US 9708924 B2 dated July 18, 2017)

Winners of Scientific Posters Awards 2016/17

E. Scientific Posters Winners

I. Sciences Posters Winners, 2017

Category - I: Faculty Members

I. Dr. Feras Ghazi Kuwait Institute for
Al-Zoubi, Scientific Research (KISR)

► Multi-Awards Ceremony ... (From P. 12)

Title of research: "Thermal Annealing Effect on Deposited Metallic Nano Thin-Films."

Dept. of Biological Sciences
Faculty of Science

2. **Dr. Adel Al-Shayji** Dept. of Mechanical Engineering
Faculty of Engineering & Petroleum

Title of research: "Natural phenolic compounds enhance the lethality of the multi-kinase inhibitor Sorafenib in human hepatocellular cancer cells."

2. **Muneera Al-Beajan** Dept. of Food Science & Nutrition
Faculty of Life Sciences

Title of research: "Numerical Simulation of Freezing Crude Oil Inside Pipeline Buried in Soil During Shutdown."

3. **Dr. Bader Shafaqa Al-Anzi** Dept. of Environmental Technology Management
Faculty of Life Sciences

Title of research: "Immunoglobulin E-Mediated Food Allergies and the associated Nutritional Factors among Children at the Paediatric Allergy Clinic in Kuwait"

3. **Anwar Al-Mutairi** Dept. of Food Science & Nutrition
Faculty of Life Sciences

Title of research: "Application of Confined Plunging Liquid Jet Reactor (CPLJR) as an Aeration/Dispersion Technique for the Environmental Safe Discharge of Brine from Kuwait's Desalination Plants"

Title of research: "Thymoquinone and Ferulic Acid Decrease the Viability of Breast Adenocarcinoma Cells Individually and Synergistically."

Category - II: Teaching Assistants

1. **Eng. Abdulrahim Kamel** Kuwait Institute for Scientific Research (KISR)

4. **Noor Al-Anjari** Dept. of Civil Engineering
Faculty of Engineering & Petroleum

Title of research: "Dry Heat Recovery Enhancement of Wafra Eocene Using Conventional Temperatures."

Title of research: "Wave Interaction with Single and Twin Vertical and Sloped Porous Walls."

2. **Latifa Al-Dhafeeri** Dept. of Information Science
Faculty of Computing Sciences & Engineering

II. Humanities Posters Winners, 2017

Category - I: Faculty Members

Title of research: "An Integrated System for Brain Tumors detection in Magnetic Resonance Imaging (MRI)."

1. **Prof. Mahmoud Al-Jamal** Dept. of Management & Marketing
Faculty of Business Administration

3. **Aisha Hamad Al-Shatti** Dept. of Food Science & Nutrition
Faculty of Life Sciences

Title of research: "A Multiple Level Casual Model of Organizational Change Success"

2. **Dr. Alaa Adel Al-Obaid** Dept. of Comparative Jurisprudence & Legitimate Policy
Faculty of Sharia & Islamic Studies

Title of research: "The Allelopathic Potential of *Conocarpus lancifolius* (Engl.) Leaves on Dicot (*Vigna Sinesis L.*) and Monocot (*Zea Mays L.*) Plants."

Category - III: Graduate Students

1. **Sarah Ibrahim Khoushaish**

عنوان البحث: "أولويات صرف الأموال الخيرية"

(Contd. P.25...►)

Research Rewards Recipients

The *Distinguished Research Series – XIII* carries forward the Research Sector's strategic mission of highlighting outstanding research accomplishments of faculty members, and bringing them to the forefront of public attention. The entire distinguished series is dedicated to spreading awareness on latest advances and attainments in the domain of scientific research at Kuwait University, and profiling internationally credible research outputs, published in high-ranking JCR-listed journals with an impact factor. Research quality and excellence are thus imperative in relaying strategic information on faculty research attainments and advances for global outreach, enhancing KU's scientific visibility and standing. RS sustained efforts are, therefore, directed at improving the quality of faculty research, as well as providing a platform for wider display and release of outstanding research that attains international recognition and acclaim on quality grounds. Given this broad purpose, RS has developed a vibrant pool of research publications, attaining scientific distinction based on research outputs generated from funded and unfunded research, as well as scoring excellence in project final report. These distinguished studies, apart from bringing laurels to Kuwait University, are instrumental in raising the institutional global status, qualifying the concerned researchers for research rewards, an incentive offered by RS in recognition of their outstanding contribution in globalizing institutional research.

RS launched the system of rewarding researchers for their distinguished research in 2010 to promote the culture of quality in faculty research, with the rewards aimed at motivating faculty members to strive for excellence in their research endeavors, and achieve internationally credible outputs that get listed in JCR-indexed journals with an impact factor. Such studies qualify for the rewards incentive, and merit inclusion in the Distinguished Series, currently in its 13th edition. Already, the Series has relayed summary findings of 56 distinguished studies, included in OVPR's Research Newsletter editions, periodically released as a gateway for transmitting KU's distinguished attainments for public exposure and awareness. In continuing the series, the current edition presents summary findings of the next four outstanding studies based on faculty members **Funded** and **Unfunded research**, as well as project **Final report** that attained excellence.

Since the launch of rewards incentive in 2010, a significant upsurge has been observed in the quality of institutional research, as visible in the rapidly multiplying list of research rewards claimants, having enlisted their published research in top 25% of the JCR listed Q1 journals with an impact factor, an international yardstick for high quality, distinguished research. Statistically, the beneficiaries of incentive rewards have significantly grown from 38 in 2010 to a record total of **440 recipients** until mid-2017, with the winners distributed over **138 (31.4%)** reward beneficiaries for Funded research, **206 (46.8%)** for **Unfunded** research, **92(20.9%)** for **excellence in Project Final Report**, and 4 (0.9%) for **Funded Research Projects**. The rapid increase in rewards recipients is a clear indicator of the incentives' significant role in improving the quality curve in institutional research, a key factor in enhancing the global value and visibility of institutional research, a mission that RS is endeavoring to accomplish in elevating KU's international profile and presence.

The stipulations governing Research Rewards are specified in the RS Research Support manual, according to which, a **KD 1000/-** reward is earmarked for **funded research** to author(s) of distinguished research, published in top 25% of the international journals with impact factor evaluated as per the Journal Citation Report (JCR) in the concerned scientific field. For **unfunded research**, a **KD 1000/-** reward is given to the researcher or all researchers (*in multi-authorship paper*) for each published research in top 25% of the international journals with impact factor evaluated as per the Journal Citation Report (JCR) in the concerned scientific field. In addition, a **KD 500/-** reward is granted to the PI for each project **Final Report** of funded research that achieves "Excellent" rating from external referee for scientific and humanities faculties. A financial reward of **KD. 4000/-** is awarded to a faculty member once per project, provided the project's scientific output is published in top 25% (Q1) journals, rated as per the Journal Citation Report (JCR) in the scientific field of the candidate.

In presenting the **I3th edition** of the **Distinguished Series**, the summary reports of next four research reward recipients are outlined, highlighting critical findings of their reward winning research, as follows:

1. **Prof. Khaldoun Rahal** (*Funded Project EV07/13*), Department of Civil Engineering, Faculty of Engineering & Petroleum. Reward awarded for the paper entitled, "*Effects of improper moist curing on flexural strength of slabs cast under hot weather conditions*," published in Journal of Construction and Building Materials, 2016, 110: 337-345.
2. **Dr. Dina Al-Mailem** (*Funded Project RS01/12*), Department of Biological Sciences, Faculty of Science. Reward awarded for the paper entitled, "*Bio-stimulation of indigenous microorganisms for bioremediation of oily hypersaline microcosms from the Arabian Gulf Kuwaiti Coasts*," published in Journal of Environmental Management, 2017, 193: 576-583.
3. **Dr. Muawia Qudeimat** (*Unfunded Research*), Department of Developmental & Preventive Sciences, Faculty of Dentistry. Reward awarded for the paper entitled "*Mineral Trioxide aggregate pulpotomy for permanent molars with clinical signs indicative of irreversible pulpitis: A preliminary study*," published in International Endodontic Journal, 2017, 50: 126-134.
4. **Dr. Majeda Hammoudi** (*Project Final Report – CM01/13*), Department of Pediatrics, Faculty of Medicine. Reward awarded for the Project Final Report entitled, "*Gulf Neonatal Infection Study (GNIS)*." 

FUNDED RESEARCH

Effects of Improper Moist Curing on Flexural Strength of Slabs Cast Under Hot Weather Conditions

Khaldoun Najeeb Rahal

(Project No. EV07/13)

SUMMARY:

Higher concrete temperatures and ambient temperatures during casting and water-curing cause a significant increase in the rate of hydration of cement. This affects the plastic as well as the hardened properties of concrete. On the other hand, a lower relative humidity increases the rate of evaporation of water from the surface of concrete and increases the risk of plastic shrinkage and cracking.

In Kuwait, it is common to cast and water-cure concrete under severe environmental conditions, combining low relative humidity and high temperatures. The adverse effects can be more severe if proper measures for moist curing are not followed. It is not uncommon on small jobs to cast concrete under hot weather conditions without proper curing.

This study aimed at gaining a better understanding of the effects of inadequate moist curing of concrete cast during hot weather conditions on the flexural strength of reinforced concrete slabs. Two series of longitudinally reinforced concrete slabs (seven slabs) were cast under hot-weather conditions and subjected to four different moist curing regimes, and were tested for their flexural behavior and strength. The difference between the specimens of the two series is the amount of longitudinal steel reinforcement, which was typical in one series (under-reinforced series), and relatively high in the other (over-reinforced series). The difference

between the specimens of the same series is the curing regimes. One slab in each series was cast and cured in the lab and acts as a control slab, because the bulk of knowledge on slab behavior is based on research on slabs cured in labs. The three other slabs in each of the series were cured outdoors during hot weather conditions. One specimen was subjected to seven days of continuous moist curing, one specimen was subjected to intermittent curing for seven days at a rate of three water applications per day, and one specimen was subjected to no moist curing. The temperatures during the week of casting and curing the slabs reached 50 degrees C and the relative humidity

(Contd. P.16... ▶)

This paper describes the biostimulation of halophilic microorganisms capable of oil-degradation in hypersaline microcosms, with the purpose of enhancing oil-bioremediation in such extreme environments. We analyzed the physicochemical parameters in the studied microcosms and found them quite suitable for microbial hydrocarbon-degradation. We treated oily microcosms with salts of the cations K^+ , Ca^{2+} , Mg^{2+} and Fe^{3+} as well as with animal blood and commercial yeast, as cost-effective vitamin sources, and exposed them to the open environment. Through the year, i.e. in summer and winter, only three bacterial species, *Dietzia kumamensis*, *Marinobacter lacisalsi* and *Halomonas axialensis* persisted in all microcosms. The remaining bacterial species differed according to the sea-

Biostimulation of indigenous microorganisms for bioremediation of oily hypersaline microcosms from the Arabian Gulf Kuwaiti coasts

Dina M. Al-Mailem, Maha Al-Deieg, Mohamed Eliyas, Samir S. Radwan

Dept. of Biological Sciences, Faculty of Science, Kuwait University
(Project No. RS01/12)

son. On the other hand, the haloarchaeal species belonging to *Haloferrax* and *Halobacterium* remained similar in the summer and winter. The results showed that the cation- and vitamin-amendments enhanced both the numbers of microorganisms and the oil-removal rates in the microcosms. The order of effective-

ness of the cations for oil-removal was: Fe^{3+} (94%), Ca^{2+} (89%), Mg^{2+} (85%) and K^+ (82%). Microcosms amended with commercial yeast and animal blood, as vitamin sources lost 78% and 73% oil, respectively. Those results are useful in designing bioremediation technologies for oily hypersaline areas. □

UNFUNDED RESEARCH

Aim:

To prospectively investigate the clinical and radiographic success rates of pulpotomy in permanent molars with clinical signs and symptoms suggestive of irreversible pulpitis using mineral trioxide aggregate (MTA) as a pulp dressing agent.

METHODOLOGY:

Sixteen patients with 23 restorable permanent molars exhibiting signs and symptoms indicative of irreversible pulpitis were enrolled. A standardized operative procedure was followed for all participants. All teeth were isolated with a dental dam and caries was removed, and then, pulpotomy performed with a sterile round and/or flame shape diamond burs. Haemostasis was achieved with 5% sodium hypochlorite (NaOCl). A mixture of MTA was placed against the wound,

and a moistened cotton pellet was placed over the MTA. Teeth were temporized with a glass-ionomer restoration. Three to ten days later, the interim restoration was removed and setting of MTA was evaluated. Teeth were restored with stainless steel crowns. Follow-up evaluations were scheduled at 3, 6, 12 months and annually thereafter. Descriptive statistics were used to assess outcomes.

RESULTS:

The age of patients at time of pulpotomy ranged between 7.6 and 13.6 years (mean = 10.7 ± 1.7 yrs). The majority of teeth (91%) had clinical signs and

symptoms consistent with a diagnosis of symptomatic irreversible pulpitis and symptomatic apical periodontitis (78%). The follow-up examination period ranged from 18.9 to 73.6 months. Clinically and radiographically, all pulpotomies were considered successful at the end of the follow-up period. Radiographically, a hard tissue barrier was noticed in 13 (57%) teeth.

CONCLUSION:

In children, MTA was associated with high clinical and radiographic success as a pulpotomy agent in permanent teeth with clinical signs and symptoms suggestive of irreversible pulpitis. ■

► *Effect of Improper Moist... (From P. 15)*

averaged below 20% for the under-reinforced series of specimens and less than 40% for the other series. The specimens were tested under four-point loading setup. The vertical deflections, steel strains and concrete strains were measured. In addition, cores were drilled from the under-reinforced series of slabs and field cured cylinders were tested in compression.

The ultimate flexural strengths, load-deflection curves and bending moment-curvature curves were studied. The results showed that the inadequate curing conditions had a significant effect on the ultimate flexural strength as well as

the deformations. The worst effect was on the slabs which were cast outdoors and remained without moist curing. The strength of that slab were 29% smaller than that of the corresponding control slab in the lightly-reinforced series, and 11% smaller than the corresponding control slab in the heavily-reinforced series.

The cores drilled from the under-reinforced slabs were more affected by the curing conditions than the remaining strength properties. The strength of the cores from the under-reinforced slab which did not receive any moist curing averaged 69% of the strength of the

cores drilled from the corresponding control slab. Hence, the test results from the cores do not accurately reflect the effects of hot weather on the flexural strength of the slabs and on the compressive strength of the concrete (as obtained from field cured compressive specimens).

In summary, standard requirements should be strictly adhered to when concreting in hot-weather conditions in order to avoid degradation in the properties of the concrete. In addition, the strength of cores can be more affected than the resistance of the slabs when concrete is inadequately cured. ■

FINAL REPORT

When children are just born, they are called neonates until 28 days of birth. During this short period, 44% of deaths among children under 5-year (approximately 1825 days) occur. Under-5 mortality beyond the neonatal period was reduced in the Gulf Cooperation Council (GCC) Countries by strengthening vaccination programmes and other hygienic measures such as safe water supply. Neonatal mortality was also reduced in GCC countries through improvement of antenatal care and the increase of the number of deliveries attended by skilled healthcare personnel. However, like many high-income countries, most of the under-5 deaths in GCC countries remain to occur on the first 28 days of birth. Infection (sepsis) is the single largest cause of death during this period with 36% of neonatal deaths attributed to sepsis. Unlike other causes of neonatal deaths such as severe congenital anomalies, death from neonatal sepsis is preventable suggesting that it is possible to avoid at least some of neonatal deaths.

Neonatal sepsis is categorized into Early-onset sepsis (EOS) and Late-onset sepsis (LOS). EOS occur within 72 hours (3 days) of birth and usually acquired through vertical transmission of organisms from mothers to infants which occurs in the birth canal during delivery. LOS is acquired beyond 72 hours of birth and caused mostly by organisms in hospitals and affect particularly premature babies.

Most of the literature addressed neonatal sepsis separating developing from developed countries. However, GCC countries are distinct from the low-income neighbouring countries. The health services are easily accessible and almost all deliveries occur under medical supervision. There is little data to guide the empirical antimicrobial treatment which is usually based on epidemiological information and antimicrobial susceptibility tests. This study

Gulf Neonatal Infection Study

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aimed to investigate the incidence of EOS and LOS in GCC countries over a two-year period, describe the main causative organisms causing these two types of infection, and investigate the antibiotic sensitivity and resistance to the most commonly used antibiotics. We conducted observational prospective cohort study in five neonatal intensive care units (NICUs) in GCC countries including Al Sabah Maternity Hospital in Kuwait, Dubai Hospital and Tawam Hospital in United Arab Emirates, and King Abdulaziz Hospital and Maternity and Children's Hospital in Saudi Arabia.

Of 67,474 live births that occurred over the study period, 102 cases of EOS and 785 cases of LOS occurred. The overall incidence of EOS was 1.51 per 1000 live births or 7.29 per 1000 admissions. While the overall incidence of LOS was 11.63 per 1000 live births or 56.14 per 1000 admissions. Based on these we estimated that more than 48,000 culture-proven cases of LOS occur annually in Kuwait, Saudi Arabia, and United Arab Emirates, which results in more than 1000 deaths. This is in addition to 620 cases of culture-proven EOS that result in additional 62 deaths. False negative blood culture due to previous use of antibiotics or insufficient blood samples is too common, therefore the numbers of clinically diagnosed LOS and EOS are anticipated to be much higher than these estimates.

Group B Streptococcus (GBS) was the main causative organism causing 60.0% of all EOS, which highlights the importance of universal GBS screening and intrapartum prophylaxis. Gram-positive

bacteria was the main causative organism for LOS with Coagulase-negative staphylococci (CONS) alone responsible for more than one third of the cases. In Maternity Hospital in Kuwait, *Candida* was the leading cause of LOS having a bigger role than CONS. Gram-negative organism such as *Klebsiella* spp. was a predominant cause of LOS causing more than one fifth of infections and responsible for more than one third of deaths due to LOS. Unlike other studies which reported higher incidence of Gram-negative infections and particularly *Klebsiella* spp. in summer, we found no evidence of seasonality in the incidence of LOS in this region.

Because LOS is caused by nosocomially acquired organisms, it has been suggested that LOS pathogens are more resistant to antibiotics than early-onset pathogens. More than half of *Klebsiella* spp. were resistant to third-generation cephalosporin while 8% were resistant to gentamycin and 6% were resistant to both. This is of concern because this organism was the second common cause of LOS after CONS and was responsible for the largest number of deaths due to LOS. Of 34 LOS cases caused by *Staphylococcus aureus*, 11 were methicillin resistant (32%) which is similar to that reported from developing countries. In conclusion, the incidence of EOS sepsis and the patterns of the causative organisms in the GCC countries is similar to that in developed countries before the era of intrapartum antibiotic prophylaxis.

Efforts should be made to improve intrapartum antibiotic prophylaxis in

OVPR's LATEST PUBLICATIONS

OVPR's publications encompass strategic information on institutional research principles, policies and practices that need preservation as valued resource, and as effective outlets for organized transmission of critical information on scientific advances at Kuwait University. Being the repositories of prime information on institutional developmental phases, the publications are the key drivers in recording fundamentals of scientific advances at Kuwait University, unfolding institutional policy initiatives, activities and attainments over 37 years journey of unprecedented growth through which scientific research evolved at KU over periods and phases since 1979. The documented information provides valuable insights into decisive moves, progress, creativity and excellence in faculty research, recorded in research manuals, policy documents, annual, analytical and trend reports, creating an invaluable pool of scientific information strategically inbuilt into the OVPR's programs, with key publications serving as vital treasure for researchers to acquire firsthand information and understanding of currently applicable regulations, procedures, privileges and facilities for grant support, as well as opportunities for advanced, innovative and collaborative research. Serving indigenous needs of the faculty research community, publications simultaneously constitute an immensely vital channel for globalizing institutional research, enhancing KU's world standing and profile. These critical needs are met through latest publications, keeping the Research Sector's (RS) production sphere in a dynamic mode, integrating and relaying precise information for keeping the vast readership informed, updated and aware on institutional research mission,

OVPR publications constitute an immensely vital channel for globalizing institutional research

OVPR's publications a valued resource on institutional research principles, policies & practices for effective transmission of strategic information on scientific advances at KU



RS Publications key drivers in recording and unfolding scientific research activity and attainments over 37 years journey of unprecedented growth through which scientific research evolved at KU over periods and phases since 1979

priorities, privileges, advantages and collaborative opportunities across institutions, regions, and cultures worldwide. Publications, therefore, remain an integral component of RS long-lasting strategy for documenting and dispersing authentic and reliable information on research developments that must reach the wider audience in electronic, visual and print forms, providing strategic outlook of scientific research at KU, and enhancing institutional global visibility, while spreading awareness on the credibility, quality and excellence of scientific research at Kuwait University.

OVPR's publications domain, therefore, remains under the sway of intense activity, assembling latest information on faculty research activity, advances and achievements, and providing the legitimate substance for generating major documents for the scientific and users community locally and regionally, enabling them to keep pace with gross realities of institutional research developments, and in the process connecting experts, scientists, institutions, collaborators and communities worldwide. The critical requirements for gener-

ating source publications stems from this need, for which latest information is assembled, analyzed, authored, edited, and designed as per specific requirements of diverse policy, analytical and informational documents for indigenous and global needs.

This mission consistently involves RS in an annual cycle of activity for the release of key documents, which during the past six months (May until September 2017) included RS Annual Summary Report (2015/16), Guide to Subject Areas (2017), OVPR's Bulletin (May 2017), Sponsored Research (2013/14 & 2014/15), Office of External Collaboration & Consultation (OERCC) Information Guide 2017 (on CD), and currently under preparation Kuwait University at a Glance (2017/18), as well as RS miscellaneous publications requirements for the forthcoming scientific poster day events for humanities and sciences faculties, scheduled for March 2018, relevant posters and invitation material, etc., collectively reflecting the pace and dimensions of RS publications activity since May 2017 onwards. Alongside progressing a huge line-up of documents for the next RS

► *OVPR Latest Publications ... (From P. 18)*

Annual Report 2016/17, Sponsored Research Series 2015/16 & 2016/17, OVPR Research Bulletin November 2017, Humanities & Scientific faculties Posters Booklets (2017/18), and printing requirements of hundreds of posters for 2-day scientific events, as well as publicity material for RIG orientation session (2017), etc., collectively signifying the momentum of upcoming RS documents in a year-round release of publications.

Beyond RS publications commitments for 2017/18, OVPR is also critically involved in key scientific journals, prepared under the Academic Publication Council's (APC) umbrella, ensuring periodic release of several editions of scientific journals throughout the year. Alongside, the Center for Gulf and Peninsula Studies (CGAPS) also remains equally involved in generating a series of books, abstracts and reports, highlighting key issues and developments in the Arabian Peninsula region. Together, these documents demonstrate the vitality of OVPR's publications domain, consistently involved in preserving, updating, sharing and disseminating immensely valuable information on institutional scientific research advances and enriching the existing information reservoir at KU, while serving as a vital carrier for the sustenance of institutional scientific legacy. It is within this progressive frame, a summary view of all newly released publications by OVPR's integral components (RS, APC & CGAPS) over the past six months (May through September 2017), is outlined below:

1. **Research Sector's (RS) Publications (May 2017 to September 2017).**

- a. Prepared & Released
- b. Under production

a. Documents Prepared & Released

Strategic publications a critical treasure for researchers to acquire firsthand information and understanding of currently applicable regulations, procedures, privileges and facilities for grant support, as well as opportunities for advanced, innovative and collaborative research



● **OVPR Research Quarterly Newsletter, May 2017**– Released in May 2017, the OVPR's Research Quarterly Newsletter marked a strategic move beyond the institutional Golden Jubilee phase towards a new era of opportunities and challenges for academic scholarship and research excellence for sustainable development, creative thinking, scientific innovation, competence and a knowledge-based economy. The bulletin's highlight was the Vice President's message for infusing greater vitality in faculty research for attaining new levels of scientific growth, improving research quality and achieving outputs of international credibility and impact. Enhancing postgraduate research and harnessing their talent, skills and creative pulse in materializing and investing innovative ideas into entrepreneurial culture. The Bulletin also featured scientific posters events for humanities and scientific faculties held in March 2017, as well key agreements and MOU's signed with Qatar University, Equate, KPI and North-eastern University for research.



The highlight was also on the multi-awards ceremony for felicitating the distinguished community of researchers, winners of graduate project prize, recipients of US registered patents, and posters awardees. Also covered was the third SPSS Workshop for scientific faculties, while the Distinguished Series entered its 12th edition, featuring outstanding research accomplishments of the next four incentive rewards recipients for having enlisted their funded and unfunded research in top-ranking JCR-indexed journals with an impact factor, as well as achieving excellence in project final report. The bulletin also presented mid-year statistical outlook of faculty research activity over the period September 1, 2016 up to February 28, 2017, and provided summarized view of latest publications released by OVPR during the period December 2016 to April 2017. Highlighting major events, happenings and activities the bulletin carried latest news reportings and miscellaneous activities in vibrant display of institutional research developments for wider dispersal at local, regional and international levels. For readers' information, OVPR's Research Quarterly Newsletter, May 2017 edition was released, widely distributed and displayed on OVPR website (<http://www.ovpr.kuniv.edu>). Published & Released (*English and Arabic*).

● **Guide to Subject Areas, 2017** – Having earlier released the electronic version of Guide to Subject Areas,



2017 in January 2017, the under-production print-version of the document took final shape in March and

▶ *OVPR Latest Publications...(From P. 19)*

under-went rigorous review process for comprehensive data-checks to ensure accuracy of specific areas codes with matching key faculty-wise subjects identified, including relevant Arabic technologies. This marathon exercise led to finalizing the document in final pre-press form expediting the Guide's delivery and release of the Guide in hardcopy format, distributed widely across all faculties to facilitate researchers in identifying and short-listing precise area-codes relevant to their specific field of research. The Guide's 2017 edition is the eighth comprehensive update on subjects areas based on faculties input, with RS classifying the critical data under broad disciplinary streams and presenting area-wise subjects listings by Faculties and departments. The inclusion of the requirements of newly established faculty of Public Health, and new departments of French Language & Culture at the faculty of Arts, and Marine Sciences at the faculty of Science significantly enhanced the Guide's scope, providing a whole series of newly enlisted subject areas, alongside faculty-wise updates, collectively offering far wider choices to the faculty research community, appropriately classifying their research interests within specific and broad scientific fields. The Guide provides Arabic and English terminologies of Subject areas, each carrying an identifying numeric code, fixing its position within the document. Overall, Guide to Subject Areas, 2017 encompasses the current and potential areas of scientific research at Kuwait University in a dynamic display of faculties' widely divergent research activity and interests. For researchers information, the Guide's hardcopy is released and distributed over all faculties, the e-Guide is accessible online. Published & Released (*Arabic and English*).

● **RS Accomplishments 2015/16 – Annual Summary Report** – Released in July 2017, the Annual Summary Report on RS Accomplishments 2015/16, presents an analytical view of

faculty research developments, ongoing activities and achievements during the academic year 2015/16. The document heavily relies on statistical data in recording growth in faculties participation in funded research in terms of projects granted, completed and under-process. The focus is also on research outputs, and publications included in high-ranking JCR listed journals with an impact factor to reflect the quality of research at Kuwait University. The highlights are also on new initiatives, collaborative agreements, and joint research activity in partnership with external institutions. The document enlists 682 projects in various stages of progress, completion and review, with volume of research organized by funding levels, types of grants, manpower deployed on projects and faculties' mission participation. The report also presents a summary view of RS major events and activities, incentives, awards and rewards as well as US registered patents achieved by faculty members. The focus is also on the annual round of RIG and SPSS sessions, Scientific Poster Day activity for humanities and scientific faculties, seminars organized, delegates received, publications released, including web-displays and updates, as well as matters concerning governance, inclusive of developmental strategy, initiatives and advances for the year ahead (2016/17). Authored, translated, designed and generated in-house, the Annual Summary Report on RS Achievements (2015/16) unveils institutional research dynamics, maintaining a historic continuum in the sustenance and integration of over 37 years of faculty research growth at Kuwait University. The document is accessible on OVPR website. Printed and Released (*English and Arabic*).

● **Sponsored Research 2013/14 & 2014/15 (23rd & 24th Edition)** – Released in July 2017, Sponsored



Research 2013/14 & 2014/15 carries forward this historic series through its 23rd & 24th edition, focusing on faculty research activity during two academic years 2013/14 and 2014/15. The document integrates empirical information on all ongoing, completed and collaborative projects, in addition to graduate students research activity at the Master's and Ph.D. levels, with completed projects exhibiting an additional element enlisting completion date of all projects accomplished during the two years span. Providing analytical insights into the huge volume of projects in various stages of progress and completion, the entire projects activity has been organized by faculties and departments, types of grants, projects sponsored by Kuwait University as well as projects jointly funded in collaboration with external institutions. Within the document, essential information includes each project's Grant No., title of research, project team (PI & Co-Is.), starting date, duration (in months), completion date (where applicable), and the project budget. Providing a comprehensive view of faculties research activity, the titles of research are prime indicators of the dominant research interests and areas actively being pursued across faculties during the years 2013/14 & 2014/15, including new areas being addressed, indicating developmental and emerging trends in institutional research. The entire faculty research activity is organized in three clearly defined sections, with **Section I.** documenting all KU sponsored projects by Types of Grants, **Section II.** enlisting jointly funded projects, and **Section III.** exhibiting graduate students research. Also included are the statistics on faculty research, alongside a comprehensive listing of all researchers indexed alphabetically. Overall, the document profiles latest advances in faculty research, with the series ef-

► **OVPR Latest Publications...(From P. 20)**

fectively enlarging the existing sponsored research database, spanning 31 years of institutional funded research activity, exhibiting faculty research vibrancy and developmental dynamics in institutional research. The series 23rd & 24th edition was widely distributed, and readily accessible on OVPR's website. Printed and Released (*English with Arabic Titles of Projects*).

b. Documents under-production

● **Kuwait University at a Glance 2017/18** – Currently under-production, Kuwait University at a Glance is a prime document,



adding a distinct dimension to institutional vision, ideology, academic, research and administrative processes, integrated into an inclusive document, presenting a dynamic portrayal of Kuwait University in the midst of strategic advances, and establishing its global image, identity and presence. Unfolding institutional rapid development, the document presents a concise, empirical, and scientific worldview of KU's academic and research processes, quality and credibility of programs, management effectiveness and governance, all rolled into a dynamic institutional entity, providing precise information on institutional development for global outreach. The document to be released under the auspices of the President, has consistently been delegated to the Research Sector, since the launching of the Glance's first edition in 2005, followed by two more advanced issues released in 2009 and 2014, respectively. Presently, the upcoming fourth issue of Glance, scheduled for 2018, is claiming RS attention in integrating voluminous source information, gathered through direct communication from all sectors, faculties, administrative affairs, units and centers for the strategic updating process for generating a comprehensive document that networks the entire ramifications of institutional programs, priorities, resources, facilities, students,

activities, accomplishments and goals ahead, within the scope of a single document.

The information gathering phase for the Glance was initiated during June 2016, and a checklist monitored the response inflow, with subsequent follow-up communications to non-responsive sectors in October 2016 to plug missing data-gaps. While the information gathering process remained in progress, the information in-hand was subjected to standardization and editing processes, readying it for relevant layout and artwork technicalities, ensuring information presentation in an innovative format. Presently, a standardized format for Glance 2017/18 has been developed, and faculty-wise formatting process is ongoing, while the President's vision, institutional governance model, strategic plan, academic and research processes, retrospect, the upcoming new campus at Shadadiya are currently being authored for appropriate placement within the document, currently in a marathon preparatory phase. Encompassing vast and voluminous information, Glance 2017/18 is intended to unveil gross realities of KU's entire universe within the framework of State's higher education goals, priorities and programs, graduate and scholarly studies, infrastructural assets, technology resources, physical expanse, and cultural and ideological growth in a scientifically driven environment, nurturing KU's ambitions and aspirations for international visibility, elevated ranking and world standing. Glance 2017/18 is a two-publications package, in English and Arabic, currently keeping the RS production channels in full operational steam in assembling critical information in preparation of Arabic and English documents, scheduled for 2018. Under

Preparation/Production (*English and Arabic*).

● **Office of External Research Collaboration & Consultation (OERCC)** – Currently

under-preparation, the 2017 information profile on the Office of External Research Collaboration & Consultation is a handy brochure, with an introductory brief on OERCC's mission, goals, responsibilities and programs. The document is aimed at networking inter-institutional alliances across public-private sectors, external institutions and industry for research marketing, technology-transfer, intellectual property safeguards, patents registration process, raising resources for specialized research, enhancing applied research and ensuring visibility. The introductory brief being prepared in English and Arabic, is driven by RS strategic mission of "linking research to industry," and is aimed at developing collaborative linkages across local, regional and international institutions for marketing of faculty research outputs of commercial propensity, apart from consultative services concerning patents and intellectual property matters. The basic information on OERCC activities was integrated for generating an updated brochure with a new image and outlook. In the interim, however, the updated OERCC information has been transferred on mini CDs for the document's rapid release. OERCC mini-CDs released, Advanced copy released on CD, print copy under-advanced production (*English and Arabic*).



● **Miscellaneous RS Publications Package, 2017** – A series of documents announcing upcoming events and activities were generated to meet



▶ **OVPR Latest Publications...(From P. 21)**

RS miscellaneous requirements concerning Scientific Poster Day events for humanities and scientific faculties, earmarked for March 2018. These included artwork and designing of Arabic/English Posters and Invitations package for the two events, as well as a package of sample poster templates to facilitate researchers in organizing their research within the technical requirements and dimensions of full-size posters as a unified standard to be adopted in poster-preparation. Relevant guidelines for textual formatting, fonts, and images to be incorporated in presenting research were also generated. The web-announcement material is simultaneously being processed for alerting researchers on the forthcoming 2017/18 scientific posters events for humanities and sciences faculties, accelerating the production momentum, and keeping the publications domain under the sway of intense activity. The entire miscellaneous package and publicity material is being readied for relevant delivery and display on OVPR website. Underproduction (*English and Arabic*).

II. Academic Publication Council (APC) Publications (Latest editions released during the period May 2017 to September 2017)

The Academic Publications Council (APC) continued to generate latest editions of the whole range of scientific Journals, issued periodically by Kuwait University, and released worldwide. The journals provide latest research articles and studies included in latest scientific journals' editions released by the Academic Publication Council over the period May 2017 to September 2017:

APC Journals released (Latest editions released during the period May 2017 to September 2017):

- Annals of Arts and Social Sciences, Vol. 37, June 2017.



▲ **Latest APC Journals editions released (2017)**

- Journal of the Gulf and Arabian Peninsula Studies, Vol. 43, No. 164, January 2017.
- Journal of the Gulf and Arabian Peninsula Studies, Vol. 43, No. 165 April 2017.
- Journal of Sharia and Islamic Studies, Vol. 32, Issue 109, June 2017.
- Journal of Sharia and Islamic Studies, Vol. 32, Issue 110, September 2017.
- Journal of Law, Vol. 41, No. 1, March 2017.
- Journal of Law, Vol. 41, No. 2, June 2017.
- Arab Journal for the Humanities, Vol. 35, No. 139, Summer 2017.
- Kuwait Journal of Science, Vol. 44 (2), April 2017

III. Center for Gulf & Arabian Peninsula Studies (CGAPS) Publications (Latest editions released during the period May 2017 to September 2017)

The Center for Gulf and Arabian Peninsula Studies (CGAPS) documented and released latest studies and reports on key issues and developmental con-

cerns in the peninsular region, enriching its information resources, with the addition of recently released published material in the form of books, reports, abstracts and documents, which included:

A. Registry of Current Events in the Gulf & Arabian Peninsula Region:

The document monitors and registers current events in the Gulf and Arabian Peninsula region, and has recently released two new reports, carrying forward the current events series through its 81 edition (January-February-March 2017), and 82 edition (April-May-June 2017). Both editions, released during 2017, are specifically dedicated to “*Kuwait Capital of Islamic Culture*,” and include several articles. The current events record is a periodical, published four times in a year by the Center, with the latest issues highlighting multiple topics on latest development and activities concerning the recognition of Kuwait as the Capital of Islamic Culture in the year 2016.

B. Strategic Reports Series:

A refereed scientific series, the latest documents in the strategic scientific series, released during 2017, are based on specialized research studies, and bridge the gap between knowledge and decision-makers. The series recently released reports include:

- i). A Report entitled, “*What is a*

(Contd. P.23...▶)

▶ OVPR Latest Publications ... (From P. 22)

“Civil Society?,” focused on main definitions of civil society in the European Thought. The Report is authored by Bader Naser Al-Hateetah Al-Mutairi, and released in 2017.

- (ii). Report Entitled, “*The Road to Kuwait Democracy 2016 Election and Before*,” is an analytical study, authored by Mahmud Harby. The report was released in 2017.



C. Strategic and Future Studies Series:

This is a refereed scientific series, aimed at bridging the gap between knowledge and decision makers. The series two recently released reports include:

- (i). A report entitled, “*Inter-regional Relations between the Gulf Cooperation Council and the Association for Southeast Asian Nations*,” was authored by Prof. Mohammad El-Sayed Selim, from the Department of Political Science, College of Social Sciences, Kuwait University, and was released in 2016.
- (ii). Report Entitled, “*Gulf-Iranian Relations from 1979: Kuwait as an Example...*” was the second report released in 2016, and was jointly authored by Dr. Ibrahim Naji Alhadban, Assistant Professor at the College of Social Sciences, Kuwait University, and Dr. Nawaf Muneer Almutairi, an expert on the Gulf and Iranian Affairs.

D. **Seminar Series:** Based on proceedings of Seminars, Conferences & Symposia organized by the Center for Gulf & Arabian Peninsula Studies, the Center released two seminar reports during 2017, which included:

- **Seminar 4.** Entitled “*Traditional Versus Modern Media: The Role of Social Media in Kuwait Society*,” was held on December 6, 2016. The seminar report was released in 2017.
- **Seminar 5.** Entitled “*Drugs: The*

▲ A Collection of recently released CGAPS Publications

“*Social and Human Dimension*,” was held on February 14, 2017, and the seminar report was released in 2017.

E. Abstracts Series on M.A. and Ph.D. Dissertations:

The Abstracts series documents summary of Master’s and Ph.D. dissertations, with the latest releases include abstracts of five Master’s Dissertations as follows:

- Abstracts Series Issue No. 25, Entitled “*Determinants and Mechanisms for Decision Making in Iranian Foreign Policy*,” is an empirical study from 2005 to the present. The report is an M.A. Dissertation Abstract prepared by Dalal Abdullah Al-Nassar, and released in 2016.
- Abstracts Series Issue No. 29, Entitled “*The Role of Student Registers in Promoting Political Awareness in Kuwait University*,” M.A. Dissertation Abstract, prepared by Ameenah Mosaed Aldosari and Associate Researcher Prof. Jelaly Bohamamah, and released in 2017.
- Abstracts Series Issue No. 30, Entitled “*Developing Standards for Selecting Supervisors in General Education in Kuwait from Experts’ point of view ‘Visual Proposal’*,” M.A. Dissertation Abstract, prepared by Uhoud Yasserr Mahdi Al-Jadi, and released in 2017.
- Abstracts Series Issue No. 31, Entitled

“*Sino-Kuwaiti Relations and the Future Prospective*,” M.A. Dissertation Abstract, prepared by Alanoud Ebraheem AlSabah, and released in 2017.

- Abstracts Series Issue No. 32, Entitled “*The Affect of Economic News on Stock Market Fluctuations*,” is an analytical field study on a sample of Kuwait newspapers. The report is an M.A. Dissertation Abstract, prepared by Nawaf Sultan Al Otaibi, and released in 2017.

OVPR’s publications, an integral part of RS strategy for globalizing institutional research, rely on rapid production of multiple documents for meeting extensive needs of the faculty research community, and for transmission of critical information on KU’s scientific advances and attainments. Overseeing sustained outflow of research-related information, Publications constitute RS dire need for documenting latest developments in the domain of scientific research at KU for generating a series of publications as essential via media for global outreach, dispersing strategic information on institutional research mission, programs, activities, collaborative possibilities and opportunities for joint studies and research. RS publications are thus imperative in extensive relay of new and latest information on RS ongoing programs and activities, creating vast pools of scientific information, integrated into newly conceptualized, updated and ad-

SPSS WORKSHOP

Dr. Basel Al-Eideh presents an overview of the SPSS program, demonstrating its applications and implications in scientific research

SPSS a powerful tool in data management and analysis

RS organizes a workshop on Statistical Analysis (SPSS) for new faculty members and graduate students of Humanities Colleges on Nov. 13, 2017



Humanities faculties participants at the SPSS Workshop Session

Under the Patronage of Vice President for Research, Prof. Taher Al-Sahhaf, the Research Sector (RS) organized a Workshop on Statistical Analysis (SPSS) for new faculty members and graduate students of the humanities faculties. The workshop, held on November 13, 2017, at the Seminar Room of Abdullah Al-Jaber Al-Sabah Hall, Shuwaikh campus, Kuwait University, was primarily aimed at demonstrating the versatility and applications of

the Statistical Package for Social Sciences (SPSS), and its implications in data management, analysis, test models and results in scientific research. The workshop's key objective was to provide an overview of the SPSS program, orienting the participants to data management technicalities and variable analysis for generating results presented in tabular and graphical formats.

was presented by Dr. Basel Al-Eideh, Dept. of Quantitative Methods & Information Systems, Faculty of Business Administration, an expert in the field, who gave a compact view of the program backed by relevant modules, data requirements and methodologies used in basic and empirical research. In all nearly 30 participants attended the workshop, exhibiting interest in understanding and exploring diverse dimensions and usage of the SPSS program in scientific research.

The program is a powerful tool in scientific research and methodology, strengthening the value and quality of both proposed and published research, an objective that RS is endeavoring to promote in humanities and sciences research. The Workshop

Outlining the workshop's significance, Prof. Laila Marouf, Asst. Vice President for External Research Collaboration and Consultation, said that the holding of SPSS workshop essentially falls within the framework of RS mission of developing and enhancing faculty members and graduate students abilities in pursuing high quality research, and achieving outputs of scientific value and significance. She also thanked Dr. Basel Al-Eideh for his efforts, and presented him with a memento.



Prof. Laila presenting a memento to Dr. Basel

► *Multi-Awards Ceremony ... (From P. 13)*

3. **Dr. Maha Al-Sejari** Dept. of Sociology & Social Work
Faculty of Social Sciences

Financial Institutions
Faculty of Business
Administration

Title of research: "Attitude, knowledge, and information sources toward organ donation among Kuwaitis: a sociocultural perspective."

عنوان البحث: تطوير مناهج قسم التمويل و المنشآت المالية و الحصول على الاعتراف في برنامج CFA University Recognition Program

Category - II: Teaching Assistants

1. **Sundus Yousif Sulaiman** Dept. of Management & Marketing
Faculty of Business Administration

Title of research: "Online Searching and Validity of Academic Research Based on Teaching Methodologies."

2. **Waad Saad Akra** Dept. of Quantitative Methods & Information Systems
Faculty of Business Administration.

Title of research: "The Use Of Social Media To Support Teaching Information System Courses in CBA."

3. **Dalia Abbas Marafi** Dept. of Finance &

Category - III: Graduate Students

1. **Fatma Al-Mutairi** Dept. of Curriculum & Teaching Methods
Faculty of Education

عنوان البحث: "فاعلية نموذج الصف المقلوب لتحقيق مستويات تصنيف بلوم المُنتقح في المجال المعرفي لمادة الأحياء للصف الحادي عشر في المرحلة الثانوية"

2. **Maha Khamas Al-Saad** Dept. of Psychology
Faculty of Social Sciences

عنوان البحث: "أداة تشخيص اضطراب الهلع لدى مراجعي مراكز الصحة النفسية في دولة الكويت"

3. **Shaha Emad Al-Obaid** Dept. of Economics
Faculty of Business Administration

Title of research "Impact of the Global Financial Crisis on Trade Flows between Kuwait and its Main Trading Partners"

► *OVPR Latest Publications... (From P. 23)*

vanced publications, highlighting institutional scientific dynamism, advances and attainments, as well as strengths and developments for global access and attention, registering KU's international profile and presence.

The release of latest descriptive and analytical documents thus demonstrate RS consistent efforts in globalizing institutional research, and ensuring outflow of up-to-date information for the benefit of experts, scientists, institutions and policy makers to keep pace with in-

stitutional research advances, attainments and activities. Essentially, the purpose is to enhance institutional visibility and provide insights into the dynamics of institutional research at KU, including R & D potentialities for innovation and high value research that spearheads discovery, generates new knowledge and yields outputs of international credibility, competence and creativity, elevating KU's world image and standing. This mission necessitates continuous documentation of progressive cycles of scientific growth at KU together with release of latest pub-

lications for the world community to acquire an understanding and glimpses of institutional research mission, activities and attainments, profiling institutional scientific vibrancy and research culture, as key imperatives of enhancing KU's prestige and world presence. For readers information, RS publications are widely distributed, hardcopies are available on request, web-users may access publications online at OVPR/RS websites (<http://www.ovpr.kuniv.edu>) and (<http://www.ovpr.kuniv.edu/research>).

► *Gulf Neonatal Infection Study... (From P. 17)*

our setting which could avert large number of infections by GBS. LOS poses a major burden in GCC countries which could be due to an increasing care for premature

babies. Gram-negative organisms, particularly Klebsiella spp. have an increasing role in LOS in GCC countries with high level of resistance towards third-generation cepha-

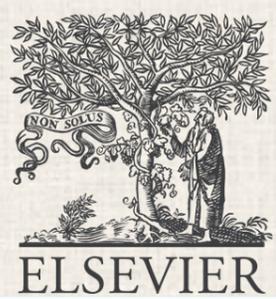
losporin. NICUs in the area should create a platform to share the experience in reducing neonatal sepsis and contribute to a common antibiotic stewardship program.

VISITING DELEGATION

Good research deserves wide exposure so that benefits of research reach wider community...

Prof. Taher Al-Sahhaf

Eight-member Elsevier delegation visits OVPR



RS-Delegates' Discussions center on the value of publishing high quality research outputs

An eight-member Elsevier delegation recently visited the Research Sector (RS) and was received by the Vice President for Research, Prof. Taher Al-Sahhaf, and his assistants Prof. Haider Behbehani and Prof. Laila Marouf on Wednesday, October 4, 2017. The visiting delegation was headed by Mr. Youngsuk 'YS' Chi, Director, Elsevier publishing

company, Netherlands, and the discussions primarily centered on wide exposure and value of high quality publications. Welcoming the delegates, Prof. Taher said that the Research Sector was in the pursuit

of promoting high quality research at Kuwait University, and encouraging the faculty research community to author and publish world-class scientific papers that hold scientific distinction and impact.



Elsevier delegates with the Vice President and Assts. Vice President for Research

Held within the framework of shared interest in the value of high quality research, the meeting signified RS belief that good research deserves wide exposure and publication so that benefits of research reach wider community, and improve global assessment and development of research outputs in delivering high-value research outputs and publications in high impact journals, keeping the research community updated as regards the basics of authoring and writing successful, distinguished and high quality scientific papers.

As regards scientific publishing, El- (Contd. P.29...▶)

RS VISITING DELEGATION

Visit an opportunity to explore possibilities of research coordination

Vice President for Research receives a two-member Visiting delegation from King Saud University

17, 2017, and was received by Prof. Taher Al-Sahhaf, Vice President of Research, and his Assistants, Prof. Haidar Bebbhani and Prof. Yousuf Garashi. The delegation included Prof. Abdulrahman



▲ King Saud University delegates in a session with Vice President and Assts. Vice President for Research

A two-member delegation from King Saud University recently visited the Office of Vice President for Research on Wednesday, October

Al-Warthan, Head of Arabian Journal of Chemistry, and Prof. Zaid Al-Othman, Head of Chemistry Department, Faculty of Science at King Saud University. The visit provided

an opportunity for both parties to exchange views on research related matters, and to explore possibilities of research coordination in areas of mutual interest.

EQUATE INNOVATION CENTER

KU's top executives attend the opening of EQUATE Petrochemical Company's Innovation Center

Event marked a step towards establishing an Innovation Center at Kuwait University



▲ Top ranking executives at the Innovation Center's Inauguration

The Equate Petrochemical Company's Innovation Center, located at the Shuaiba Industrial Area, was inaugurated amidst the presence of the company's

CEO, Mr. Mohammed Hussain, representing Equate Petrochemicals Company, along with a group of company's executives, as well as a team of Kuwait University's top-ranking executives, which included Dr. Adam Al-Mulla, KU's Acting Secretary General, Dr. Adel Al-Husainan, Vice President for Planning, Prof. Taher Al-Sahhaf, Vice President for Research, his

Assistant Prof. Laila Marouf, and a number of executives. The inaugural event, marking Equate Petrochemical Company and Kuwait University's strategic partnership, was a step towards establishing an innovation center at Kuwait University, within the framework of realizing KU's upcoming strategic plan for the years 2018-2022,

RS
CIRCULARS

1. Forms for Research Support

The Research Sector (RS) kindly draws the attention of all researchers in respective faculties to use the RS FORMS for submitting their research support requisitions. The Forms must be typed (not hand-written), printed in color, and ap-

proved by the concerned Head of the Department, as well as endorsed by the Vice Dean for Research. Submission of the required forms in this manner will facilitate processing procedures, and expe-

dite transactions.

Please note, henceforth, the Research Sector will not process any handwritten forms starting from 01-11-2017. 

2. Expenditure Settlement & Petty Cash Requests

Researchers' kind attention is drawn to the Ministry of Finance Circular, specifying the dates for annual closing of accounts for the fiscal year 2017/2018 for the government sector. Accordingly, researchers are required to initiate the process of settling their research expenditure

prior to the closing date. Please note, the last date for such financial settlements for the fiscal year 2017/2018, is March 31, 2018.

Researchers are kindly requested to adhere to the deadlines, which requires submission of requests for

Petty Cash before December 14, 2017, and settling the expenditures before January 31, 2018. Kindly be informed that any unspent amount, not settled by the deadline, is liable to automatic deduction from the researcher's salary of February/March 2018. 

► *Innovation Center ... (From P. 27)*

with innovation being one of integral elements setting the basic developmental directions.

The event provided a befitting occasion

for EQUATE Petrochemical Company allocating in a kind gesture a number of offices at the Innovation Center in Shuaiba to faculty members at Kuwait Univer-

sity. The purpose was to facilitate those who wished to use the center's available resources for research and studies that benefit the country. 

► *Visiting delegaion from Abdulhameed Shoman.. (From P. 9)*

contribute to preparing and inspiring a generation of Arab researchers, experts and specialists in scientific fields, considering the limited potentials of institutions, universities and individuals. She further added that of the 3,925 candidates until now, the award winning Arab researchers totaled 412, mostly from universities and scientific institutions throughout the Arab world, with an independent body of academics and scientists supervising the awards.

Continuing further she said that over the last 35 years, 21 referees from the State

of Kuwait have participated in awards refereeing, with some participating more than once. Also, a total of 10 researchers from Kuwait University and Kuwait Institute for Scientific Research (KISR) have won the award and 27 researchers with Kuwaiti nationality were nominated for the award between 1995 and 2016.

As regards Abdulhameed Shoman Fund for scientific research support, Mrs. Alzubi said that the Fund was established in 1999 to support scientific research in Jordanian universities, institutions and scientific centers, and is the

first fund, entirely funded by the private sector to support scientific research. The Fund supports applied scientific research with added value provided by researchers in Jordan, and encourages participation of institutions of higher education in scientific research, apart from enhancing cooperation with national and international research centers, directing researchers towards addressing topics that meet the needs of Jordanian society and contribute towards the redressal of local economic, social and environmental development challenges. 

RS NEWS

KU President amidst the presence of Vice President for Research & Asst. Vice President meets US registered Patent Recipient

Kuwait University President, Prof. Husain Al-Ansari, amidst the presence of Vice President for Research, Prof. Taher Al-Sahhaf, and his Assistant, Prof. Laila Marouf, recently held a meeting with the recipient of two US registered Patents, Dr. Osama Al-Hawaj from Mechanical Engineering Department, Faculty of Engineering & Petroleum, for his breakthrough research. The patents won during the academic year 2016/17, and announced by US Pat-

ent Office, are befitting recognition of Dr. Osama's outstanding work, providing the basis for two inventions, entitled:

1. "Drive System for Wind Turbine with Contra-Rotating Generator," resulting in US registered Patent No. 9,709,027 B1, dated July 18, 2017.
2. "Combined Pump and Energy Recovery Turbine," leading to the award of US registered Patent No. 9,708,924 B2, dated July 18, 2017.

Congratulating Dr. Osama for his

Latest Patent Recipient

Dr. Osama Al-Hawaj wins two patents for his breakthrough research



Dr. Osama Al-Hawaj

achievements, Prof. Al-Ansari appreciated his efforts and accomplishments that received international recognition and brought laurels to Kuwait University, which was a matter of pride for the institution. He also encouraged Dr. Osama to continue his exceptional research endeavors that generate products of scientific inventions that achieve international acclaim and lead to registered patents.



KU President receives the patent winner amidst the presence of Vice President and Asst. Vice President for Reserch

Elsevier Delegation visits OVPR...(From P. 26)

sevier is one of the major publishing companies in the world, holding publishing collaborations for more than 20,000 products for specialized and educational needs in the fields of science and health care around the world. These products help researchers accomplish discoveries, and cooperate

with governments and universities to evaluate and enhance new research strategies. Apart from the Director, the visiting delegates also included Mr. Phil Cooke, Senior Analyst, Mr. Basal Mehmet Tayfun, Regional Director, Elsevier, Mr. Mohamed Ahmed Zaki Elgebealy, Regional Ac-

counts Manager, Gulf, Elsevier, Mr. Shadi Awwad, Research Intelligence Sales Manager, Mr. Jamal Al-Alawi, Executive Director, Virtus National Co., Mr. Mohamed Abbas, Marketing Manager, Virtus National, and Mr. Yunus Pulparambil, Operation Manager, Virtus National.

STATISTICS ON FACULTY RESEARCH

RS strategically inclined towards enhancing the quality, integrity and global competitiveness of KU research

In the domain of scientific research at Kuwait University (KU), the Research Sector (RS) recorded an unprecedented 14.1% growth in faculty research during the academic year 2016/17, with a gross total of 778 projects defining the sphere of funded research over 682 projects last year (2015/16). The sheer volume of research was a distinct pointer to faculties increased confidence in the grant support system, with their enhanced participation signaling emerging dynamics in institutional research. The growth factor was implicitly observable all round, dominating the spheres of ongoing, completed and under-process projects during the period September 1, 2016 to August 31, 2017. Of the 778 projects, 355(45.6%) were ongoing, 237 (30.5%) completed, and 186(23.9%) newly submitted proposals under-process for grant support (Table 1).

The massive growth observed in faculty research exhibited faculties increased predilection and participation in funded research, which apart from being a promising development, raised new expectations and challenge for RS to explore additional avenues for suste-

RS records an unprecedented 14.1% growth in faculty research with a gross total of 778 projects defining the sphere of funded research at KU during the academic year 2016/17

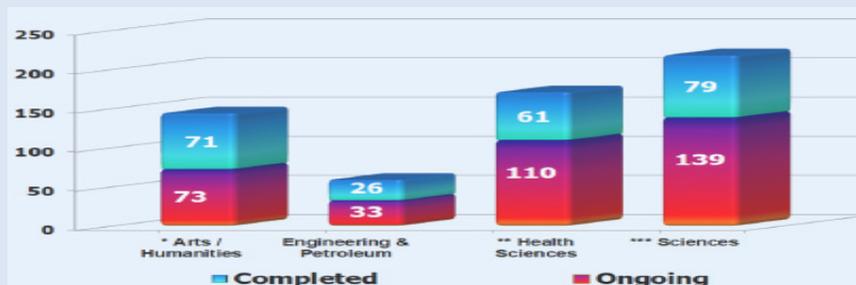
Sheer volume of research a promising development indicating faculties increased predilection & participation in funded research

Table 1. TOTAL RESEARCH ACTIVITY*
Academic Year (2016/17) (Sept. 1, 2016 to Aug. 31, 2017)

Project Status	Funding ** Levels			Total
	less than 4001	4001 - 10,000	more than 10,000	
Ongoing	188	27	140	355 (45.6%)
Completed	169	16	52	237 (30.5%)
Under-process	47	33	106	186 (23.9%)
TOTAL	404 (51.9%)	76 (9.8%)	298 (38.3%)	778
		374 (48.1%)		

* Source KURS, Data from Sept. 1, 2016 to August 31, 2017. (Includes ongoing/completed projects from previous year).

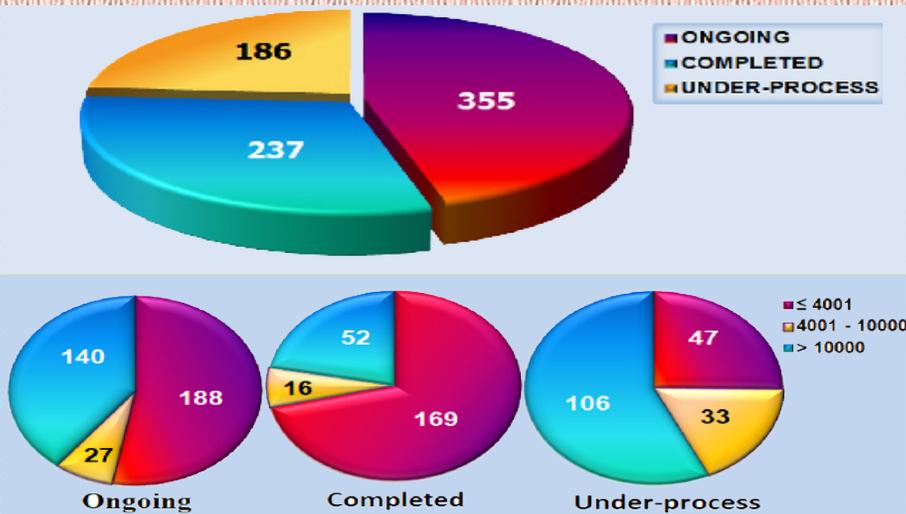
** Values in KD.



* Includes the Faculties of Arts, Business Admn., Education, Law, Sharia and Social Sciences.

** Health Sciences Center Includes Faculties of Allied Health Sciences, Dentistry, Medicine and Pharmacy).

*** Includes Faculties of Architecture, Computing Sciences & Engineering, Life Sciences and Science.



nance of the growth momentum. RS faculties expertise, caliber and intellectualism for creative endeavors, which robust assets for this purpose were the

► **Statistics on faculty research...**(From P. 30)

backed by RS supportive system, procedural mechanism and professional services provided an encouraging environment for faculty members to pursue advanced and innovative research that could boost the institutional research graph within the parameters of *quality, credibility* and *excellence*. RS believes that the faculties enormous talent and grant support facilities together are bound to stimulate the growth factor keeping institutional research on a progressive path.

The sustenance of faculty research crucially depends upon the provision of grant support, available to faculties within the framework of RS Research Support System governing the award of grants to faculty members based on project-approval. All approved projects merit award of grants under **three clearly defined levels of funding support**, and based on a project's budgetary requirements, all projects fall in the categories of *small, medium* and *big-budgeted projects*, specifics of which are outlined in the manual of *Research Support Rules & Regulations* (2013).

Hence, during 2016/17, faculties total research activity (778) by **Funding Levels** accounted for (Table 1.):

- 404 (51.9%) small-budgeted projects (less than KD. 4000/-)
- 76 (9.8%) medium budgeted projects (KD 4001-10,000/-)
- 298 (38.3%) big budgeted projects (KD 10,000/- & above)

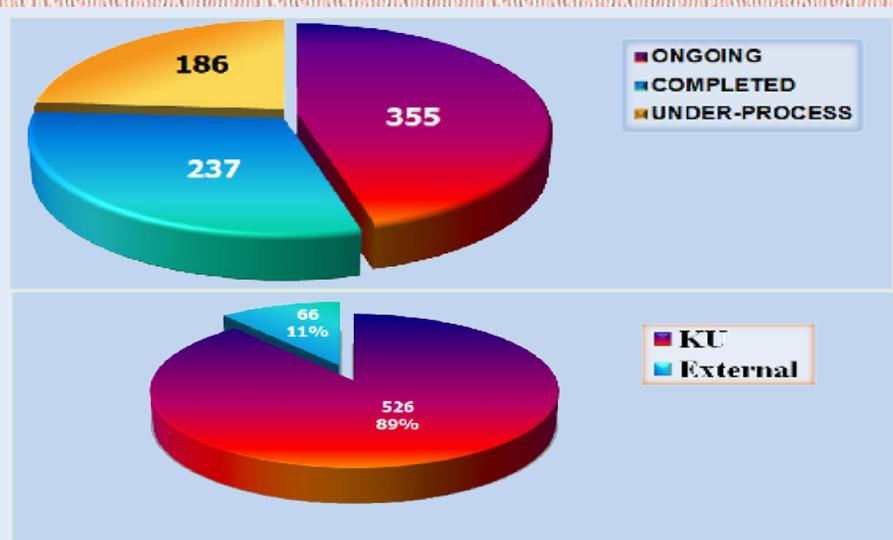
The above figures show maximum 404 (51.9%) projects in the lowest budgetary category of up to KD

RS exploring feasibility of marketing research outputs to transmit the benefits of research in the service of society and mankind as institutional social responsibility

Table 2(a). TOTAL ONGOING, COMPLETED & UNDER-PROCESS PROJECTS by FACULTY & FUNDING SOURCE, Academic Year (2016/17) (Sept. 1, 2016 to Aug. 31, 2017)*

FACULTY	ONGOING		COMPLETED		UNDER-PROCESS		TOTAL		GRAND TOTAL	
	KU	EXT**	KU	EXT	KU	EXT	KU	EXT		
Allied Health Sciences	7	1	7	1	8	2	22	4	26	
Architecture	-	1	1	-	1	-	2	1	3	
Arts	9	1	16	-	4	-	29	1	30	
Business Admn.	16	3	12	-	4	2	32	5	37	
Computing Sciences & Engineering	17	4	8	-	8	5	33	9	42	
Dentistry	8	1	11	-	3	1	22	2	24	
Education	7	-	11	1	3	2	21	3	24	
Engineering & Petroleum	26	7	20	6	13	8	59	21	80	
Law	2	-	1	-	1	-	4	-	4	
Life Sciences	14	1	4	-	2	3	20	4	24	
Medicine	66	13	29	2	23	18	118	33	151	
Pharmacy	13	1	11	-	10	-	34	1	35	
Science	85	17	60	6	33	15	178	38	216	
Sharia	16	-	13	-	2	-	31	-	31	
Social Sciences	19	-	17	-	9	6	45	6	51	
TOTAL	305	50	221	16	124	62	650	128	778	
	└─355┘		└─237┘		└─186┘		└─778┘			
	└─592┘				(23.9%)					
	(76.1%)									

* Source KURS, Mid-year Statistics (Sept. 1, 2016 to August 31, 2017).
 ** External Institutions.



(Ongoing & Completed)

4,000/-, 298 (38.3%) projects in the highest budgetary range (KD 10,000/- and above), and lowest number of 76

(9.8%) projects in the medium budgetary range (KD 4001/- to 10,000/-). The cumulative count of highest and

► **Statistics on faculty research...(From P. 31)**

Table 2(b). Eight - Years of ONGOING & COMPLETED Research by Faculty Groupings (2009/10, 2010/11, 2011/12, 2012/13 , 2013/14, 2014/15, 2015/16 & 2016/17)

Years	Faculty Groupings								TOTAL		GRAND TOTAL
	Arts/ Humanities*		Engineering & Petroleum		Health Sciences**		Sciences***		Ongoing	Completed	
	Ongoing	Completed	Ongoing	Completed	Ongoing	Completed	Ongoing	Completed			
2009/10	39	16	66	19	123	55	126	40	354	130	484
2010/11	37	22	62	18	129	39	122	41	350	120	470
2011/12	51	24	51	26	114	52	121	29	337	131	468
2012/13	64	30	63	20	129	32	137	43	393	125	518
2013/14	56	39	54	20	135	39	151	42	396	140	536
2014/15	58	39	49	20	114	53	146	59	367	171	538
2015/16	72	38	35	18	116	35	156	41	379	132	511
2016/17	72	71	33	26	110	61	140	79	355	237	592
TOTAL	449	279	413	167	970	366	1099	374	2931	1186	4117

* Includes the Faculties of Arts, Business Admn., Education, Law, Sharia and Social Sciences.
 ** Health Sciences Center Includes Faculties of Allied Health Sciences, Dentistry, Medicine and Pharmacy).
 *** Includes Faculties of Architecture, Computing Sciences & Engineering, Life Sciences and Science.
Source RS Annual Reports 2009/10 , 2010/11 , 2011/12 , 2012/13 , 2013/14, 2014/15 & 2015/16

Close coordination with external institutions continuously being developed as also public-private equations as vital steps towards laying the basis of entrepreneurial culture in KU research

existing projects-equations on funding grounds in favor of faculties increased participation towards larger, complex and challenging issues awaiting scientifically driven solutions for national, industrial, economic and regional concerns. The pursuit of such studies through empirical, investigative and experimental research invariably require multi-expertise, collaborative input, resources and facilities, for which budgetary adequacy is a key factor in implementing projects that could lead to potentially significant outputs of scientific, social, and human value, with new scientific developments and information generated providing legitimate basis towards a



medium budgeted projects totaled 374 (48.1%), a figure which despite coming closer to small-budgeted projects, remained superseded by smaller-grants. To a certain extent, a higher percentage of smaller grants is attributable to concentration of projects falling in the categories of *Research Initiation Grants (RIG)* and *Graduate Students* research, both tied to budgetary limitations. In addition, some researchers preferentially opted for smaller

projects, which along with RIG and Graduate students grants were instrumental in enhancing the numeric count of small-budgeted projects during 2016/17. Faculties increased inclination towards smaller project at a time when RS is endeavoring to promote well-defined, comprehensive, collaborative and interdisciplinary studies, is a development that merits close monitoring to configure an effective strategy that could alter the

knowledge-based economy.

A promising development in this regard is observable in the current lineup of 186 under-process proposals for grant support, exhibiting a higher concentration of 57% (106) big-budgeted projects in comparison to 25.3% (47) proposals seeking smaller grants, and 17.7%(33) proposals requiring medium-level grants. With a much larger volume of big-budgeted

► **Statistics on faculty research...(From P. 32)**

under-process projects, RS anticipates an apparent increase in large-scale studies altering the existing research dynamics in favor of big-budgeted, interdisciplinary and joint studies, which are increasingly becoming more relevant in addressing contemporary challenges and emerging realities of modern times. Such studies are strategic to RS mission in line with KU's universal vision and aspirations, involving the sector in exploring multidisciplinary dimensions in research through faculties greater participation in joint and collaborative studies for advancing KU's R&D potentialities and enhancing the *quality, integrity* and *global competitiveness* of institutional research.

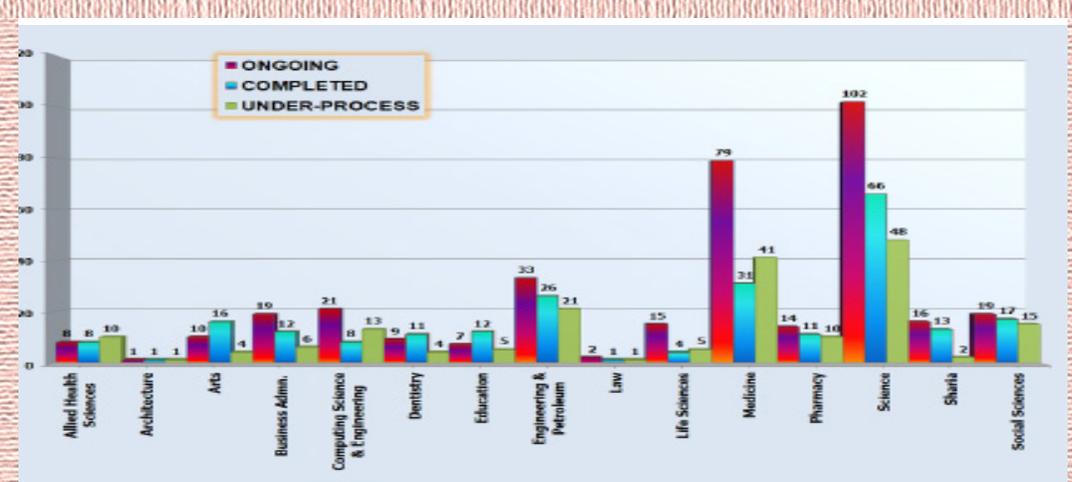
Available statistics during 2016/17 exhibit all faculties to be the grant recipients in RS funded research, though their respective participation levels significantly differed in terms of the actual volume of projects being pursued. In all, 778 projects cumulatively accounted for faculties total participation in ongoing, completed and under-process research during 2016/17, with their faculty-wise distribution showing the faculties of Science (216), Medicine (151), and Engineering & Petroleum (80) to be the top grant recipients, collectively accounting for 447 (57.5%) ongoing, completed and under-process projects. The remain-

Faculties expertise, caliber and intellectualism constitute RS robust assets for the sustenance of growth momentum in institutional research

Table 3. PROJECTS STATUS by FACULTY & FUNDING LEVELS Academic Year 2016/17 (Sept. 1, 2016 to Aug. 31, 2017)***

FACULTY	ONGOING			COMPLETED			UNDER-PROCESS			TOTAL
	less than 4001	4001 - 10,000	more than 10,000	less than 4001	4001 - 10,000	more than 10,000	less than 4001	4001 - 10,000	more than 10,000	
Allied Health Sciences	3	-	5	4	1	3	1	2	7	26
Architecture	-	-	1	1	-	-	1	-	-	3
Arts	9	-	1	16	-	-	3	1	-	30
Business Admn.	16	3	-	12	-	-	2	2	2	37
Computing Sciences & Engineering	12	1	8	5	3	-	5	3	5	42
Dentistry	4	-	5	8	2	1	1	1	2	24
Education	5	1	1	9	3	-	2	1	2	24
Engineering & Petroleum	9	5	19	11	1	14	3	1	17	80
Law	2	-	-	1	-	-	1	-	-	4
Life Sciences	8	4	3	3	1	-	2	-	3	24
Medicine	37	2	40	24	-	7	5	9	27	151
Pharmacy	10	-	4	7	-	4	1	2	7	35
Science	41	8	53	39	5	22	11	10	27	216
Sharia	16	-	-	13	-	-	2	-	-	31
Social Sciences	16	3	-	16	-	1	7	1	7	51
TOTAL	188	27	140	169	16	52	47	33	106	778
	355 (45.6%)			237 (30.5%)			186 (23.9%)			

* Source KURS, Data from Sept. 1, 2016 to August 31, 2017..
** Values in KD.



ing 331 (42.5%) grants were distributed over the other 12 faculties (Table 2a). A further analysis of 592 ongoing and completed projects in terms of dominant faculty-groupings showed Sciences faculties (Architecture, Computing Sciences & Engineering, Life

Sciences, and Science) to be the top grant recipients with 218 (36.8%) ongoing & completed projects, Health sciences faculties (Allied Health Sciences, Dentistry, Medicine, and Pharmacy) enlisting 171 (28.9%) ongoing & completed projects, Hu-

► **Statistics on faculty research...**(From P. 33)

manities faculties (Arts, Business Administration, Education, Law, Sharia & Islamic studies, and Social Sciences) accounting for **144(24.3%)** ongoing & completed projects, and **Engineering & Petroleum** faculty registering least number of **59 (10%)** ongoing and completed projects. The under-process (186) proposals by faculty-groupings also reflected a similar pattern with a maximum line-up of 67 (36%) proposals from Sciences faculties, followed by 65 (35%)Health Sciences proposals, 33 (17.7%) Humanities proposals, and 21 (11.3%) Engineering & Petroleum proposals (**Table 2a.**). Faculties individual participation levels, however, remained under perpetual change on account of the influx

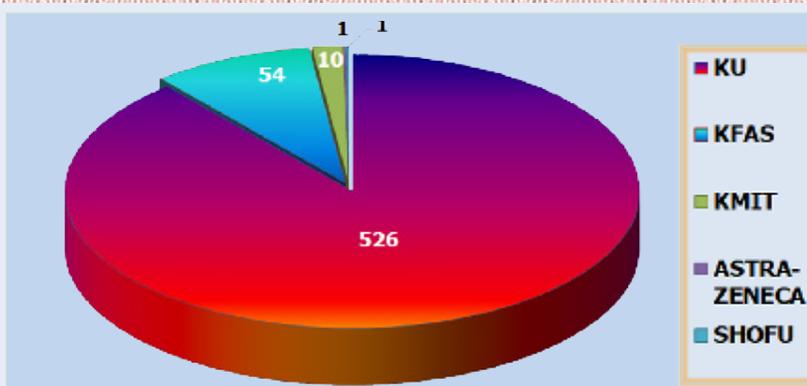
of newly approved under-process proposals, which are bound to alter and enhance the participation levels of various faculty-clusters in funded research ahead, and impacting the faculties individual performance as regards projects awarded and accomplished, and outputs generated, as a measure of their respective research productivity. Viewing the faculties entire research activity in terms of ongoing, completed and under-process projects, a distinct continuum is observed, with faculty research community as much involved in ongoing and completed research, as in conceptualizing new proposals for grant support, reflecting the prevalence of a robust research culture across faculties visible in simultaneous sustenance and progression of research activity across faculties.

Table 4. TOTAL ONGOING & COMPLETED RESEARCH PROJECTS by FUNDING SOURCE Academic Year 2016/17 (Sept. 1, 2016 to Aug. 31, 2017)*

FACULTY	KU	KFAS	KMIT	ASTRA-ZENECA	SHOFU	TOTAL
Allied Health Sciences	14	2	-	-	-	16
Architecture	1	1	-	-	-	2
Arts	25	1	-	-	-	26
Business Administration	28	3	-	-	-	31
Computing Sciences & Engineering	25	3	1	-	-	29
Dentistry	19	-	-	-	1	20
Education	18	1	-	-	-	19
Engineering & Petroleum	46	8	5	-	-	59
Law	3	-	-	-	-	3
Life Sciences	18	1	-	-	-	19
Medicine	95	12	2	1	-	110
Pharmacy	24	1	-	-	-	25
Science	145	21	2	-	-	168
Sharia	29	-	-	-	-	29
Social Sciences	36	-	-	-	-	36
TOTAL	526 (88.8%)	54	10	1	1	592 (11.2%)

* Source KURS, Data from Sept. 1, 2016 to August 31, 2017 (Includes ongoing/completed projects from previous year).

KU Kuwait University
 SHOFU Kuwait Foundation for the Advancement of Sciences
 KFAS Kuwait Foundation for the Advancement of Sciences
 KMIT Kuwait Massachusetts Institute of Technology
 ASTRAZENECA AstraZeneca



An analytical progression of all ongoing and completed projects by dominant faculty groupings over the last eight years shows a significant 22.3% growth in institutional research, starting with 484 ongoing and completed projects in 2009/10, reaching a record total of 592 projects by 2016-17 (Table 2b.). The simultaneous inflow of 186 new

proposals during 2016/17 further enhanced the prevailing faculty research dynamics, which along with 355 ongoing and 237 completed projects, formed the essential core of institutional research activity during the academic year, collectively forming the gross volume of research being implemented and accomplished across faculties.

► **Statistics on faculty research...(From P. 34)**

Viewing entire faculty research activity in terms of scientific and humanities streams, the collective participation of all scientific faculties, clustering Sciences, Health Sciences and Engineering faculties, accounted for 601 (77.3%) ongoing, completed and under-process projects. These by far exceeded the humanities faculties cluster of Arts, Humanities and Social Sciences faculties enlisting 177 (22.7%) projects reflecting their collective participation in funded research in comparison to scientific faculties projects count.

These figures demonstrate the existing sciences-humanities divide as regards faculties participation in funded research, revealing a gap which needs RS sustained efforts in improving and attracting humanities faculties greater involvement in funded research. This matter is involving RS in configuring the mechanism and

measures, along with enhanced communication and contact with humanities faculties to infuse greater vitality in the domain of humanities research, attracting increased participation of humanities researchers within the fold of funded research, which hopefully would bridge the existing sciences-humanities gap in the sphere of funded research.

Analyzing faculty research activity by **funding levels**, the distribution of 592 ongoing and completed projects showed maximum concentration of **357 (60.3%)** ongoing and completed projects in the lowest budgetary category of KD 4000/-, **192 (32.4%)** projects in the highest budgetary category of KD 10,000/- & above, and 43 (7.3%) ongoing and completed projects in the medium range budgetary category (KD. 4001/-10,000/-) (Table

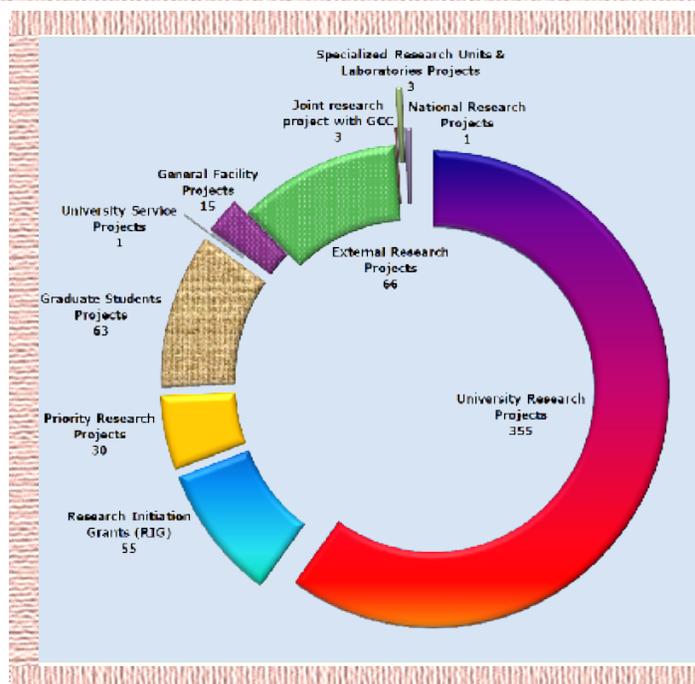
Table 5(a). ONGOING & COMPLETED RESEARCH PROJECTS by TYPES of GRANTS Academic Year 2016/17 (Sept. 1, 2016 to Aug. 31, 2017)*

Faculty	Types of Grants										Grand Total
	URP	RIG	PRP	GRP	USP	GFP	ERP	SRUL	NRP	GCC	
Allied Health Sciences	9	1	1	3	-	-	2	-	-	-	16
Architecture	-	1	-	-	-	-	1	-	-	-	2
Arts	19	6	-	-	-	-	1	-	-	-	26
Business Admn.	23	5	-	-	-	-	3	-	-	-	31
Computing Sciences & Engineering	18	3	3	-	1	-	3	-	-	-	28
Dentistry	18	-	-	-	-	-	1	1	-	-	20
Education	13	4	1	-	-	-	1	-	-	-	19
Engineering & Petroleum	31	4	7	1	-	3	13	-	-	-	59
Law	1	1	1	-	-	-	-	-	-	-	3
Life Sciences	10	2	2	4	-	-	2	-	-	-	20
Medicine	45	8	5	32	-	1	15	1	1	2	110
Pharmacy	15	-	-	9	-	-	1	-	-	-	25
Science	101	8	9	14	-	11	23	1	-	1	168
Sharia	24	5	-	-	-	-	-	-	-	-	29
Social Sciences	28	7	1	-	-	-	-	-	-	-	36
TOTAL	355	55	30	63	1	15	66	3	1	3	592

* Source KURS, Data upto August 31, 2017.

URP -- University Research Projects
PRP -- Priority Research Projects
USP -- University Service Projects

RIG -- Research Initiation Grants
GRP -- Graduate Research Projects
GFP -- General Faculty Projects



mitted proposals, 47 (25.3%) were lined-up for smaller grants (KD. 4000/-), and 33(17.7%) were seeking medium range funding support (KD. 4001- 10,000/-) (Table 3). The placement of maximum big-budgeted under-process proposals signaled faculties increased inclination towards comprehensive studies, which are likely to overtake limited objectives, small projects through times ahead. With small budgetary category accounting for maximum 357 ongoing and completed projects, their

3). The **under-process 186** proposals, however, exhibited a different pattern with largest grant seekers figuring in the big-budgeted category having submitted a net total of 106 (57%) proposals. Of the remaining 80 (43%) newly sub-

► **Statistics on faculty research**...(From P. 35)

faculty-wise distribution showed **131(36.7%) ongoing** and **completed projects** from Arts & Humanities faculties, **109(30.5%) projects** from Sciences faculties, **97(27.2%) projects** from Health Sciences faculties, and **20(5.6%) small projects** from Engineering & Petroleum faculty. Of the 43 **medium range projects**, **22(51.2%) ongoing** and **completed projects** were from sciences faculties, **10(23.3%) projects** from Arts & Humanities faculties, **6(13.9%) projects** from Engineering & Petroleum faculty, and **5 (11.6%) projects** reflected Health Sciences faculty's participation in medium range projects. The classification of **192 big-budgeted projects** by faculties, showed maximum **88 (45.8%) ongoing** and **completed projects** from Sciences faculties, **69 (36%) projects** from Health Sciences faculties, **33(17.2%) big-budgeted projects** from Engineering & Petroleum faculty, and Arts & Humanities faculties enlisting 2(1%) projects. Overall, faculties participation in small, medium and big-budgeted projects during 2016/17, showed maximum small budgeted projects from humanities faculties, while sciences faculties recorded maximum big-budgeted projects (Table 3).

Apart from small, medium and big-budgeted ongoing and

completed (592) projects by funding levels, it is actually the under-process 186 newly submitted proposals that reflected the upcoming dynamics of faculty research by reversing the existing funding pattern in favor of a maximum line-up of big-budgeted

proposals. The faculty-wise distribution of under-process proposals by funding levels thus provided advanced signals of an alternative funding equation emerging with biggest grant seekers being from the Health Sciences faculties having

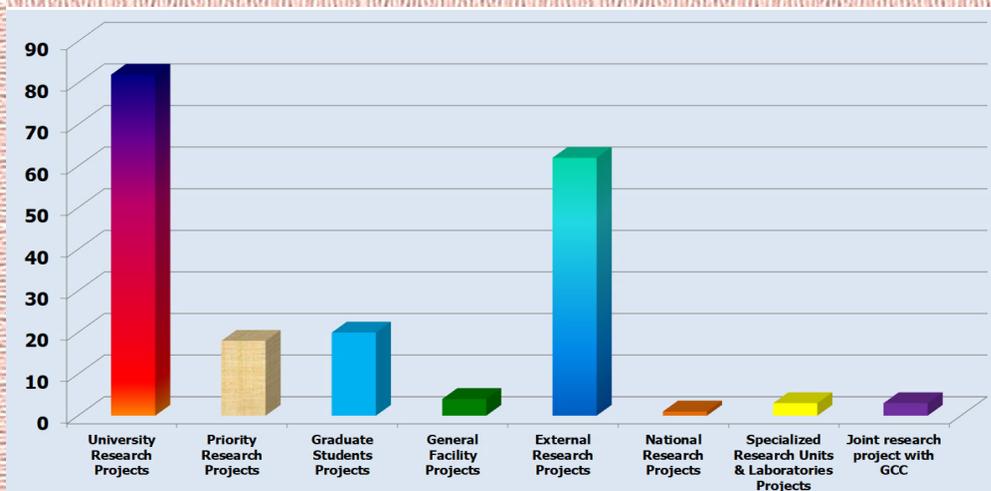
submitted 43(40.6%) big-budgeted proposals for grant support, followed by 35 (33%) big-budgeted proposals by sciences faculties, 17 (16%) big-budgeted proposals from Engineering & Petroleum faculty, and 11 (10.4%) proposals from Arts

Table 5(b). Under-process RESEARCH PROJECTS by TYPES of GRANTS Academic Year 2016/17 (Sept. 1, 2016 to Feb. 28, 2017)*

Faculty	Types of Grants									Grand Total
	URP	RIG	PRP	GRP	USP	GFP	ERP	SRUL	GCC	
Allied Health Sciences	7	-	1	-	-	-	2	-	-	10
Architecture	-	-	1	-	-	-	-	-	-	1
Arts	4	-	-	-	-	-	-	-	-	4
Business Admn.	3	-	-	-	-	1	2	-	-	6
Computing Sc. & Engineering	8	-	-	-	-	-	5	-	-	13
Dentistry	3	-	-	-	-	-	1	-	-	4
Education	2	-	1	-	-	-	2	-	-	5
Engineering & Petroleum	7	-	6	-	-	-	8	-	-	21
Law	1	-	-	-	-	-	-	-	-	1
Life Sciences	1	-	-	1	-	-	3	-	-	5
Medicine	8	-	3	10	-	2	18	-	-	41
Pharmacy	4	-	4	2	-	-	-	-	-	10
Science	25	-	-	7	-	1	15	-	-	48
Sharia	2	-	-	-	-	-	-	-	-	2
Social Sciences	7	-	2	-	-	-	6	-	-	15
TOTAL	82	-	18	20	-	4	62	-	-	186
	(44.1%)		(9.7%)	(10.8%)		(2.1%)	(33.3%)			

* Source KURS, Data from Sept. 1, 2016 to Aug. 31, 2017.

- URP -- University Research Projects
- RIG -- Research Initiation Grants
- PRP -- Priority Research Projects
- GRP -- Graduate Research Projects
- USP -- University Service Projects
- GFP -- General Facility Projects
- ERP -- External Research Projects
- SRUL -- Specialized Research Units & Laboratories
- GCC -- Joint Research Project with GCC



► **Statistics on faculty research...(From P. 36)**

& humanities faculties (Table 3).

As regards ongoing research, 355 projects in various stages of progress, reflected the active sphere of faculties research implementation during the academic year 2016/17. Faculty-wise distribution of these projects showed maximum 139 (39.1%) ongoing projects being pursued across the sciences faculties, followed by 110(31%) ongoing projects in progress at the Health Sciences Center faculties, 73(20.6%) ongoing projects credited to Arts & Humanities faculties, and 33 (9.3%) ongoing projects exhibiting Engineering & Petroleum faculty's research in progress (Ref. Table 2a.).

By *funding-levels*, a higher concentration of 188 (53%) ongoing projects were in the lowest budgetary category of less than KD 4001/, followed by 140(39.4%) projects in more than KD 10,000/- category, while 27 (7.6%) ongoing projects figured in the medium-range budgetary (KD 4001-10,000/) category (Table 3). A similar pattern was observed in the sphere of 237 completed projects, with maximum 169 (71.3%) completed projects falling in less than KD 4,001/- budgetary category, 52(21.9%) completed projects figuring in the highest budgetary category of more than KD 10,000/-, and

least number of 16 (6.7%) completed projects were in the medium budgetary (KD 4001 – 10,000/-) range. Faculty-wise, Sciences faculties achieved higher completion rate with 79 (33.3%) projects, closely followed by Arts & Humanities faculties with 71 (29.9%) projects, Health Sciences faculties enlisted 61(25.7%) completed projects, and Engineering & Petroleum faculty had the lowest number of 26(11%) completed projects (Table 3).

A key factor in the sustenance of faculty research at Kuwait University is the *Funding support*, a vital resource facilitating faculties in implementing their approved projects. In fact, the entire research process and associated activities revolve around the availability of budget, resources and facilities,

granted to approved projects within the framework of RS research support system, governing the provision of grant awards in nurturing, developing and advancing institutional research. Given this system, faculty research robustly thrives on KU's funding support, alongside a relatively small percentage of projects sustained through external support, based on collaborative ties that KU shares with external institutions. During 2016/17, of the 592 ongoing and completed projects, KU funding support was responsible for sustaining a huge volume of **526 (88.8%)** projects, with an additional **66(11.2%)** projects being the recipients of external support (Table 4.). These figures consistently demonstrate the supremacy of KU in being the key grant provider in the sustenance of faculty research,

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Table 6(a). Published Papers from Funded Research, Comparative Eight Calendar Years (2010 - 2017)

FACULTY	F U N D E D								TOTAL
	2010	2011	2012	2013	2014	2015	2016	2017*	
Allied Health Sciences	2	4	2	7	6	3	4	-	28
Architecture	-	-	-	-	-	-	-	-	-
Arts	4	2	4	4	2	6	6	3	31
Business Admn.	4	2	2	3	7	6	6	4	34
Computing Sciences & Eng.	-	-	-	-	1	3	4	2	10
Dentistry	5	6	8	8	8	7	11	4	57
Education	2	2	1	4	4	2	2	2	19
Engineering & Petroleum	18	26	21	22	24	17	15	6	149
Life Sciences	7	8	12	10	2	1	2	2	44
Medicine	37	43	30	33	29	32	25	19	248
Pharmacy	6	6	5	8	5	5	6	2	43
Science	49	51	46	53	50	38	36	16	339
Sharia	2	2	3	3	2	1	1	1	15
Social Sciences	5	6	7	9	4	3	6	1	41
TOTAL	141	158	141	164	144	124	124	62	1,058

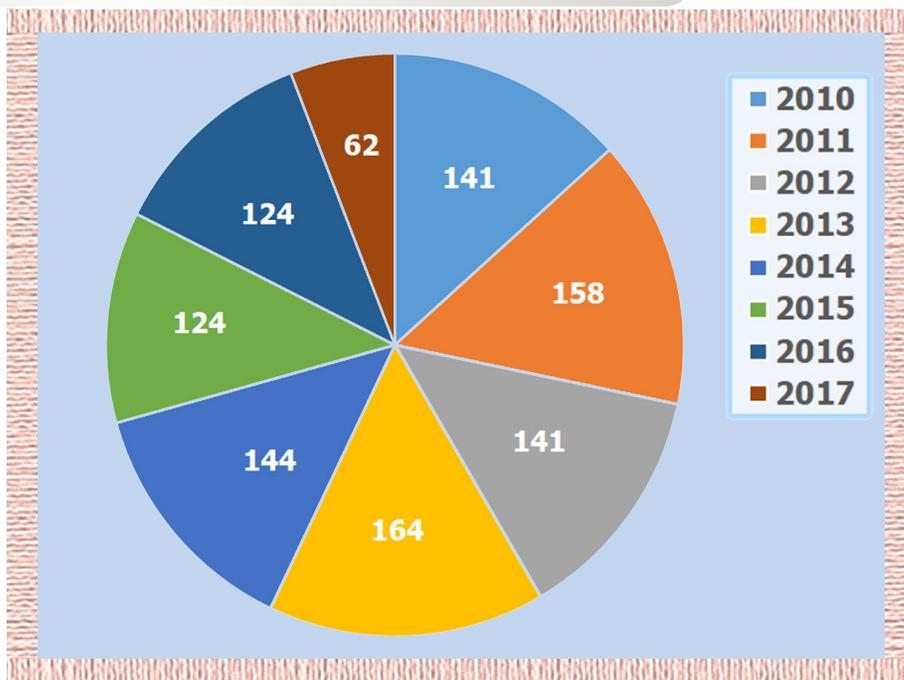
*2017 Publication Count upto August 2017.

► **Statistics on faculty research** ... (From P.37)

with external support having a role alongside in the implementation of joint studies, being pursued in collaboration with four external institutions. These included *Kuwait Foundation for the Advancement of Sciences* (KFAS) for supporting a larger volume of 54 (81.8%) joint projects, while *Kuwait-Massachusetts Institute of Technology* (KMIT) supported 10(15.2%) projects, and 1(1.5%) project each was supported by *AstraZeneca* and *Shofu Company* (Table-4). Of the **186 newly submitted proposals** for grant support, **124(66.7%)** proposals were lined-up for KU grant awards, and **62(33.3%)** proposals were seeking external grant support (Table 4.).

In numerical terms, though the volume of collaborative studies (66) was much lower in comparison to projects (526) thriving on KU support, RS considers external institutions as valued partners, recognizing their significant role in the sustenance of faculty research activity. Research Sector is, therefore, strategically inclined towards developing new alliances and linkages with external institutions for promoting joint and interdisciplinary studies, and in enhancing the sphere of collaborative research. Developing new inter-institutional understandings, linkages and agreements are thus part of a process towards cultivating new partnerships through formalized agreements as RS strategy for enhancing its external horizons, and advancing and globalizing institutional research.

As per regulations, funding support is available to faculties under ten **Types of Grants**, specifics of which are outlined in the RS manual of rules and regulations. During 2016/17, faculties were pursuing 592 ongoing and completed projects, distributed over all Types of Grants, statistical outlook of which is presented in (Table 5a.). Numeri-



Interdisciplinary and joint studies increasingly becoming more relevant in addressing contemporary challenges & emerging realities of modern times

cally, maximum **355 (60%)** projects were being pursued under the *University Research projects* category, 55 (9.3%) were RIG projects, 30 (5%) Priority Research projects, **63 (10.6%) Graduate Research projects**, **15(2.5%) General Facility projects**, **66(11.2%) External Research projects**, **3(0.5%)** projects each **figured** under the *Specialized Research Units & labs* and *GCC Joint projects* categories, and **1 (0.2%)** project each was **granted** under *National Research* and *University Service projects* categories (Table 5a.). These figures indicate faculties active participation in availing grants under all types of grant support categories,

though with differing participation levels in terms of actual number of projects.

Overall, *University Research Grants*, enlisting 355 (60%) ongoing and completed projects, dominated all other types of grants, signifying the importance of this category over all other types of grants. University Research Grants also predominated **under-process 186** proposals, of which **82 (44.1%)** proposals were seeking funding support under the University Research Grants category. The remaining new proposals were distributed over the other grant categories, which included **18(9.7%)** Priority research proposals, **20(10.7%)** Graduates research proposals, **4(2.2%)** General Facility proposals, and **62(33.3%)** External research proposals (Table 5b.). Faculties predilection towards University Research Grants was thus a clear indicator of the supremacy of these grants over all other types of grants, making this category the virtual mainstay of institutional research.

As regards **research productivity**, the outputs generated from projects is a critical indicator of successful com-

(Contd. P.39...►)

► **Statistics on faculty research...(From P. 38)**

pletion of research. RS regulations specify research productivity as a mandatory requirement for completed projects, making it imperative for researchers to publish their research outputs generated from completed projects by publishing at least one paper in high ranking JCR listed journals with an impact factor as evidence of research quality. RS adheres to this universal *quality assurance standard* in perpetuating the *culture of quality* in faculty research, and enhancing the international visibility and competitiveness of KU published research on quality grounds. Monitoring the productivity angle in KU research is thus an integral part of RS sustained effort towards keeping track of the upward momentum in faculties published research appearing in high ranking JCR journals with an impact factor, the key determining factor in elevating KU's standing and ranking status on the global platform. It is within this framework, RS recorded the inclusion of as many as 124 publications from funded research in highly ranked JCR indexed journals during the calendar year 2016, with all colleges enlisting high quality publications with varying numeric count. With 2017 publications count (62) providing an initial outlook of faculties productivity, statistical distribution of year 2016 publications (124) by disciplinary streams showed maximum 46 (37.1%) Health

Sciences publications appearing in high quality journals, followed by 42 (33.9%) Sciences publications, 21(16.9%) Arts and Humanities publications, and 15 (12.1%) Engineering & Petroleum publications (**Table 6a.**).

The cumulative productivity record of *Health Sciences, Sciences, and Engineering & Petroleum* streams accounted for 103 (83.1%) publications, demonstrating scientific faculties outperforming Humanities faculties performance with the enlisting of 21 (16.9%) publications in high quality journals. The scientific faculties vibrancy in comparison to humanities faculties was thus apparent in achieving high quality research outputs published in JCR ranked journals with an impact factor. However, in recording the faculties respective productivity record during a specific calendar year

there always remain the possibility of an upward increase in total number of publications depending upon acceptance and actual inclusion of submitted papers in print form, with the target journal's release. Between manuscript submission and approval, the entire process is time-consuming, affecting faculties respective productivity levels throughout, alongside the initial momentum of newly enlisted 2017 publications further altering faculties respective publications record.

A comparative outlook of research productivity dynamics based on **funded research** over the last eight years (2010-2017) exhibits faculties' cumulative productivity accounting for 141 published papers during the calendar year 2010, 158 papers in 2011, 141 in 2012, 164 in 2013, 144 in 2014, 124 in 2015, 124 in 2016, and 62 in 2017,

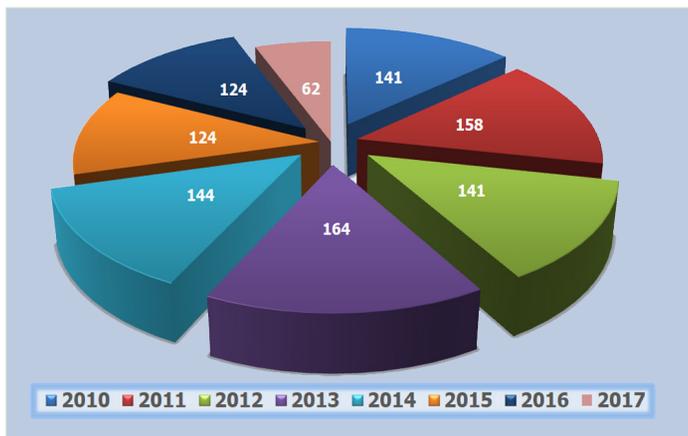
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Table 6(b).Total Publications from Funded research in JCR indexed Journals with an Impact Factor, Eight Calendar years record (2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017)*

Journals	Publications (Funded Research)								Total
	2010	2011	2012	2013	2014	2015	2016	2017	
Q1	18	26	37	43	53	35	52	30	(27.8%) 294
Q2	41	36	33	32	32	38	28	11	(23.7%) 251
Q3	25	37	29	43	20	25	13	6	(18.7%) 198
Q4	17	22	18	17	19	9	11	1	(10.8%) 114
T	101	121	117	135	124	107	104	48	(81%) 857
NIF*	40	37	24	29	20	17	20	14	(19%) 201
Grand Total	141	158	141	164	144	124	124	62	1,058

Q1: Top 1 - 25% of the journals with impact factor ranked in accordance to JCR** by Specific Subject Area of Research.
 Q2: Top 26 - 50% of the journals with impact factor ranked in accordance to JCR** by Specific Subject Area of Research.
 Q3: Top 51 - 75% of the journals with impact factor ranked in accordance to JCR** by Specific Subject Area of Research.
 Q4: Top 76 - 100% of the journals with impact factor ranked in accordance to JCR** by Specific Subject Area of Research.
 *NIF - No Impact Factor
 **2017 data upto September 2017.

► **Statistics on faculty research** ... (From P. 39)



as initial record of faculties productivity figures up to August 2017, a figure bound to increase as the year progresses (Table 6a.).

In terms of the publications quality, an eight years (2010 – 2017) statistical outlook of faculties publications from funded research is presented in (Table 6b). Overall, 1,058 publications accounted for faculties total productivity during the span of eight calendar years. Of these, 857 (81%) papers were published in high-ranking Q1 to Q4 journals with an impact factor, and an additional 201(19%) papers appeared in un-refereed or “no impact” journals. A further classification of publications in terms of their specific quality status showed 294 (27.8%) publications appearing in Q1 (top 1- 25%) journals with an impact factor, 251 (23.7%) publications placed in Q2(26-50%) top to good journals with an impact factor, 198(18.7%) publications enlisted in Q3 (51-75%) good to medium ranked journals with an impact factor, and 114 (10.8%) publications placed in Q4(76-100%) medium to low ranked journals with an impact factor. These figures reflect the quality dynamics in faculty research, with researchers increasingly inclined towards high ranking Q1 to Q4 JCR journals for publishing their research outputs, as indicated by 857 (81%) publications included in high quality journals. What is significant, however, is the drop in the count of 201(19%) publications appearing in un-refereed, “no impact” journals, re-

inforcing the vitality of quality norm in faculty research, a major development exhibiting the effectiveness of RS efforts and strategy in improving the quality of research, a criti-

cal factor in enhancing institutional global visibility, and a mission claim-

Publications data reflects the quality dynamics in faculty research, with researchers increasingly inclined towards high ranking Q1 to Q4 JCR journals

ing RS attention and drive towards uplifting KU’s international presence, profile and stature.

Presently, RS is transpiring faculties to incorporate the virtues of *innovation, creativity* and *integrity* in their research endeavors, being the *key imperatives* for a *knowledge-based economy*. Researchers are increasingly being encouraged to address concerns that are relevant in contemporary context, aim at discovering answers to hidden complexities of science, and resolving challenging issues, while generating new knowledge and products of inventions that win international recognition and acclaim, and bring laurels to Kuwait University. Such distinguished studies and breakthroughs are vital in elevating KU’s global standing, enhancing institutional international prestige, and improving its ranking status. Apart

from strengthening the institutional scientific foundations, RS is also exploring the feasibility of *marketing research outputs* so that benefits of research could be transferred in the service of society, in meeting national needs and priorities, and in improving the quality of life as institutional social responsibility. A close coordination with external institutions is also continuously being developed, as also the public-private equation as vital steps towards laying the basis of *entrepreneurial culture* in institutional research. The sphere of Graduate research is equally in focus for developing students caliber and creative pulse, and improving the Master’s and Doctoral level research at Kuwait University. Contact and communication with faculty research community is simultaneously being enhanced to develop researchers confidence in the grant support system, as also resolving their key concerns and project-related issues.

The whole effort is aimed at creating a stimulating environment that draws faculties towards the ideology of scientific curiosity and creativity laying the basis for a *vibrant research culture* across faculties. To a certain extent, statistical implications of 14.1% increase in faculty research during 2016/17, tends to signal robust growth in the sphere of funded research at Kuwait University, the sustenance of which is claiming RS top priority. Increased efforts are also towards capitalizing on faculties expertise and creative potential geared to opening new avenues and opportunities for widening the institutional scientific horizons, developing indigenous capacity and capabilities for scientific innovation, including the acquisition of resource muscle to scale-up the dynamics of advanced and value-added research at Kuwait University.