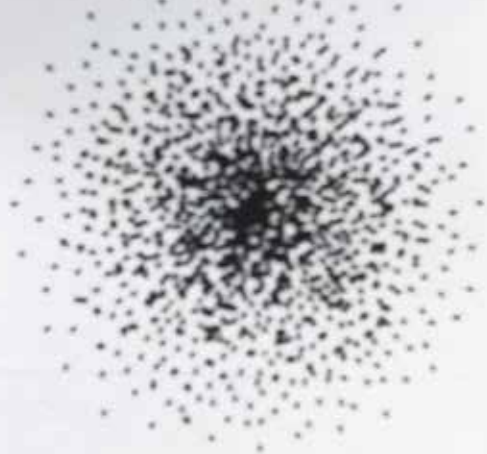




**Together, we reignite the
region's development**



نوابغ
العرب

Great Arab Minds



ABOUT GREAT ARAB MINDS

The Great Arab Minds (GAM) is the Arab world's largest movement designed to search for exceptional talents among Arab scientists, thinkers, and innovators across key fields, aiming to identify, support and acknowledge leading thinkers in the region, amplify their impact and inspire future generations.

The initiative was launched by H.H. Sheikh Mohammed bin Rashid Al Maktoum, UAE Vice-President, Prime Minister, and Ruler of Dubai.

VISION

To embrace and celebrate the achievements of Arab scholars, innovators, and thinkers with the aim of becoming the lighthouse of knowledge in the world.

MISSION

To reignite and activate an intellectually stimulating ecosystem that drives and equips Great Arab Minds to shape the future of the region.

MAIN OBJECTIVES

- 01** Leading the scientific and research renaissance by involving the Arab world's greatest minds and universities in the largest movement to bring back the Arab "golden age".
- 02** Honoring Great Arab Minds, celebrating their achievements and funding their research and projects.
- 03** Boosting Arab scientific contributions, from research publications to patents and innovations across various disciplines.
- 04** Establishing a network that brings together the brightest Arab scientists, thinkers and talents to accelerate the Arab world's scientific and intellectual progress.
- 05** Setting up a conducive environment for Great Arab Minds, providing all the facilities required to enable them to serve their countries and make exceptional accomplishments.
- 06** Presenting Great Arab Minds as role models to be emulated in terms of their dedication, forward-thinking and developmental efforts.
- 07** Providing a wide range of unique opportunities to Great Arab Minds in collaboration with top international companies and institutions in the Arab world, ensuring their capacity to achieve their goals.

MAIN CATEGORIES



Medicine



Natural Sciences



Architecture and Design



Literature and Arts



Engineering and Technology



Economics

"The Arab region contains minds that are able to stand out and contribute regionally and globally"

His Highness Sheikh Mohammed bin Rashid Al Maktoum

UAE Vice President, Prime Minister, and Ruler of Dubai

The Great Arab Minds initiative, the **Arab world's largest movement** is initiated to search for exceptional Arab talents in various fields. In addition to recognise their achievements, the initiative provides tangible support in various forms to the winners in their respective categories, expanding the impact of their accomplishments **locally, regionally, and globally**. Since its launch, the Award has come to be known as the '**Arab Nobel Prize**' in the Arab world, as it aims to recognise the most brilliant Arab scientists and talents.

His Highness Sheikh Mohammed bin Rashid Al Maktoum announced the winner of each category via his social media in 2024 and awarded them the Great Arab Minds award in the ceremony, which is held in 2025. **This scientific movement marks its second year, symbolizing a new beginning where only the best lies ahead for us.**



Professor Yasmine Belkaid

Recipient of the Great Arab Minds Award in
Medicine

Professor Yasmine Belkaid

President of Institut Pasteur

Professor Yasmine Belkaid, born in Algiers in 1968, is a globally renowned expert in the fields of host-microbe interactions and immune regulation. Following her school education, Professor Belkaid graduated from the University of Science and Technology Houari Boumediene in Algiers with a bachelor's and master's degree in biochemistry. Subsequently, she moved to France and received a Master of Advanced Studies (DEA) from Paris-Sud University. She then went on to receive a PhD in immunology at the Institut Pasteur in Paris, focusing on innate immune response to leishmania infection.

Following the completion of her studies, Professor Belkaid moved to the United States, where she held a postdoctoral fellowship at the National Institutes of Health in Bethesda, Maryland focusing on immune regulation during infection. In 2002 she joined the Children's Hospital Research Foundation of Cincinnati beginning her research program. In 2005, Professor Belkaid joined the National Institute of Allergy and Infectious Diseases (NIAID) where she served initially as department chair of the Laboratory of Host Immunity and Microbiome before rising to become the Director of the National Institutes of Health (NIH) Center for Human Immunology, where she founded and directed the National Institute of Allergy and Infectious Diseases Microbiome Program. In 2024, she was appointed on a 6-year term as President of her alma mater the Institut Pasteur, a prestigious non-profit private foundation dedicated to the study of biology, micro-organisms, diseases, and vaccines based in Paris, France.

During her career across these various institutions, Professor Belkaid has published more than 220 scientific papers on infection, immunity, immunology, microbiota and nutrition. With decades of groundbreaking research, Professor Belkaid has revolutionized the understanding of the body's microbiota and its role in immunity. Professor Belkaid has focused on untangling the mechanisms underlying host- microbe interactions in the gastrointestinal tract and on the skin, both natural barriers

between the microbe's inner workings and its external environments. Included in her research was a deeper understanding of the role microbiota play in potential in promoting immunity against infection. Professor Belkaid and her research group have greatly enhanced scientific understanding of how the host immune system can distinguish good microbes from bad, as well as how shifts in microbiota can contribute to disease, particularly chronic inflammatory diseases like Crohn's disease and psoriasis. These discoveries have had transformative impacts on the understanding of human immunity and its therapeutic potential in disease treatment.

Throughout her career, Professor Belkaid has been a strong advocate for interdisciplinary research, leading collaborative projects that bridge immunology, microbiology, and clinical applications. Her research has been instrumental in exploring how harnessing the microbiota can provide innovative solutions for combating immune-related diseases and improving human health. Her numerous accolades include the 2019 Lurie Prize in Biomedical Sciences, the 2021 Robert Koch Prize, and election to leading scientific institutions such as the National Academy of Sciences, the National Academy of Medicine, and the American Academy of Arts and Sciences. She is also a prolific mentor, inspiring and guiding a new generation of scientists dedicated to advancing the fields of immunology and microbiology. She has been particularly vocal about emphasising female engagement in science, having noted that in the past it was easy for women to give up their independent research aspirations. However, Belkaid has been vocal about emphasising the need for structures to protect talent in science and provide them from falling through the cracks, irrespective of gender, origin, or socioeconomic status.

These contributions of Professor Belkaid have extended beyond the laboratory to the global scientific community, where she has championed knowledge-sharing initiatives and collaborative efforts to address global health challenges. Her innovative research continues to shape the future of immunology and microbiome science, cementing her legacy as one of the foremost leaders in her field, whilst simultaneously inspiring the next generation of immunologists.



HH Sheikh Mohammed
@HHShkMohd

نبارك اليوم للفائزة بجائزة نوابغ العرب عن فئة الطب لعام 2024، البروفيسورة ياسمين بلقايد من الجزائر، رئيسة معهد باستور في فرنسا... قدمت إسهامات استثنائية في علم المناعة، ودراسات مرتبطة بدور الميكروبات في تعزيز المناعة والوقاية من الأمراض... نشرت البروفيسورة ياسمين بلقايد أكثر من 220 بحثاً علمياً في مجالات العدوى والمناعة.

Winner of the Great Arab Minds
Award in Medicine

2024

الفائز بجائزة نوابغ العرب عن
فئة الطب



Professor Yasmine Belkaid

President of Institut Pasteur

The Great Arab Minds Award in Medicine for 2024 is awarded to Professor Yasmine Belkaid in recognition of her exceptional contributions to immunology.

Professor Yasmine Belkaid's studies have significantly advanced the understanding of the relationship between microbes and the immune system, particularly highlighting the vital role of skin-resident microbes in enhancing immune defenses. Her research demonstrated how specific skin microbes act as a frontline defense, improving immune readiness against infections.

Her work also focuses on understanding the mechanisms behind chronic diseases associated with microbiome imbalances and has contributed to the development of effective preventive and therapeutic strategies. Professor Yasmine Belkaid has published more than 220 scientific papers on infection, immunity, microbiota, and nutrition.

البروفيسورة ياسمين بلقايد

رئيسة معهد باستور

جائزة نوابغ العرب عن فئة الطب لعام 2024 تُمنح للبروفيسورة ياسمين بلقايد تقديراً لإسهاماتها الاستثنائية في علم المناعة.

ساهمت دراسات البروفيسورة ياسمين بلقايد في تعزيز فهم الطيف للعلاقة بين الميكروبات والجهاز المناعي مع تسليط الضوء على الدور الحيوي لميكروبات الجلد في تعزيز الدفاعات المناعية. أثبتت أبحاثها كيف تعمل بعض الميكروبات الجلدية كخط دفاع أول لتحسين جاهزية المناعة ضد العدوى والوقاية من الأمراض.

تركز أبحاثها أيضاً على دراسة الآليات المرتبطة بالأمراض المزمنة الناتجة عن اختلالات في الميكروبيوم، مثل تأثيرها على استجابات الجهاز المناعي وعلاقتها بالأمراض المزمنة. وأسهمت في تطوير استراتيجيات وقائية وعلاجية فعالة لتحسين صحة الإنسان عن مدى التطور. نشرت البروفيسورة ياسمين بلقايد أكثر من 220 بحثاً علمياً في مجالات العدوى، والمناعة، والميكروبيوتا، والتغذية.



Professor Oussama Khatib

Recipient of the Great Arab Minds Award in
Engineering and Technology

Professor Oussama Khatib

Professor of Computer Science and Director of the
Robotics Laboratory at Stanford University

Born in Aleppo, Syria in 1950, Professor Oussama Khatib is roboticist and professor of Computer Science whose research in robotics focuses on novel control architectures, algorithms, sensing, and human-friendly designs for advanced capabilities in complex environments. Currently serving as the Director of the Robotics Laboratory at Stanford University, President of the International Foundation of Robotics Research (IFRR), and an IEEE Fellow.

Professor Khatib completed his higher education in France throughout the 1970s, graduating with a Bachelor of Science from the University of Montpellier in 1972, before going on to complete a master's of science in Electronics, Electrotechnics, and Automation at the same institution. He subsequently received a Specialized Diploma from Sup'Aero in Toulouse, France in 1976 with a particular interest in Advanced Automation. Professor Khatib then remained at Sup'Aero earning a PhD in Automation and Systems.

Since 1982, Professor Khatib has served in the faculty of Stanford University, originally joining as a Research Associate at the Computer Science Department. He has served as a Professor at Stanford since 2000, leading the university's research on robotics at the Director of the Robotics Laboratory. At Stanford, Professor Khatib has focused on enabling robots to interact cooperatively and safely with humans and the physical world. He has authored a number of seminal articles focusing on how robots are able to avoid obstacles in the real world. Professor Khatib's 1986 entry in 'The International Journal of Robotics Research' entitled Real-time obstacle avoidance for manipulators and mobile robots is of particular note introducing a unique real-time obstacle avoidance approach for manipulators and mobile robots based on the artificial potential field concept. Khatib has also produced significant works in the elastic band model, operational space formulation, and haptic interaction.

Professor Khatib's development of these capabilities have allowed for a wide range of applications including in healthcare and

wellness, industry and service, farms and smart cities, and dangerous and unreachable settings such as deep in oceans, mines, and space. Among his pioneering achievements is the development of the OceanOne robot, a humanoid robotic avatar for deep-sea exploration. OceanOne integrates advanced haptics, stereo vision, and bimanual manipulation, enabling robots to mimic human capabilities in underwater environments. Furthermore, in the 1990s, Professor Khatib's lab developed the fully integrated holonomic mobile manipulation platforms, a development which gave birth to the commercial holonomic mobile robot, the Nomad XR4000.

In recognition of his lifelong contributions to robotics, Professor Khatib has received numerous prestigious global awards reflecting his great contribution to the field. He is recipient of the IEEE Robotics and Automation Pioneering Award for his contributions in robotics research, visionary leadership, and life-long commitment to the field, the IEEE/RAS George Saridis Leadership Award, the Distinguished Service Award, the Japan Robot Association (JARA) Award, the Rudolf Kalman Award, the IEEE Technical Field Award, and the Engelberger Award. Furthermore, Professor Khatib was elected to the prestigious National Academy of Engineering in 2018 in the United States, for his contributions to the understanding, analysis, control, and design of robotic systems operating in complex, unstructured, and dynamic environments.

Professor Khatib continues to inspire the next generation of robotics innovators through teaching and mentorship. He currently continues to teach modules at Stanford University, enabling him to pass on his essential to the next generation of Robotics developers, currently delivering courses such as 'Introduction to Robotics', 'Experimental Robotics' and 'Advanced Robotics' to students of differing experiences at Stanford. Furthermore, over his career, Professor Khatib has taken up positions as a visiting professor in universities around the world, including France, Italy, Japan, Singapore, and Switzerland, ensuring that his essential knowledge is shared with roboticists around the world.

Professor Khatib's visionary research and inventions have redefined the relationship between humans and machines, combining technology and innovation to help build a better and more technologically advanced future.



HH Sheikh Mohammed

@HHShkMohd

الإخوة والأخوات.. نحتفي بالعلماء والمفكرين والمبدعين كل علم عبر جائزة نوابغ العرب ... وبعد تلقي آلاف الترشيحات .. نعلن اليوم الفئز بجائزة نوابغ العرب عن فئة الهندسة والتكنولوجيا لهذا العام..

من سوريا، أرض الحضارات، ومن حلب، مدينة التاريخ والعلم، نحتفي اليوم بنوبغ أحد أبنائها.. البروفيسور أسامة خطيب، مدير مختبر الروبوتات في جامعة ستانفورد، قدم إسهامات علمية استثنائية في مجال هندسة الروبوتات وعلومها، ونشر أكثر من ٢٢٧ بحثاً علمياً، وابتكر روبوتات متقدمة قادرة على استكشاف أعماق المحيطات وتقديم حلول مبتكرة تخدم البشرية..

مسيرته بدأت من مدرسة المأمون بحلب، ووصلت إلى العالمية، ليصبح نموذجاً مشرفاً لنوبغ العلماء العرب. نبارك للبروفيسور أسامة خطيب فوزه، ونبارك لسوريا، ولمدينة حلب فخرها، ونؤكد أن العرب قادرون على استعادة ريادتهم العلمية.. واستئناف حضارتهم بين أبنائهم.

Winner of the Great Arab Minds
Award in the Engineering & Technology

2024

الفائز بجائزة نوابغ العرب عن
فئة الهندسة والتكنولوجيا



Professor Oussama Khatib

Professor of Computer Science and Director of the Robotics
Laboratory at Stanford University

The Great Arab Minds Award in Engineering and Technology for 2024 is awarded to Professor Oussama Khatib for his pioneering contributions to robotics and human-robot interaction. His groundbreaking research and innovations in robotic systems, algorithms, and sensing technologies have significantly advanced the field, enabling robots to operate effectively in diverse environments, including healthcare, industrial automation, and deep-sea exploration.

Among his remarkable achievements is the creation of the OceanOne robot, a revolutionary humanoid robot for deep-sea exploration, combining haptic feedback, stereo vision, and bimanual manipulation to replicate human skills with unmatched precision. With over 327 research studies, Professor Khatib's work bridges theoretical innovation with practical applications, transforming the robotics landscape globally.

البروفيسور أسامة خطيب

أستاذ علوم الحاسوب ومدير مختبر الروبوتات
في جامعة ستانفورد

مادة نوابغ العرب عن فئة الهندسة والتكنولوجيا لعام 2024 منحت للبروفيسور أسامة خطيب تقديراً لإسهاماته الرائدة في مجال الروبوتات والتفاعل بين الإنسان مع الروبوتات. ساهم البروفيسور خطيب في تطوير علم الروبوتات عبر أبحاثه وابتكاراته في أنظمة الهندسة، والخوارزميات والتقنيات للاستشعار لتعزيز قدرات الروبوتات على أداء المهام في بيئات متنوعة. ساهمت أبحاثه في تحسين حركة الروبوتات والتحكم بها واستخدامها في وظائف حيوية. قام البروفيسور أكثر من 327 بحثاً في الروبوتات والعلوم المرتبطة بها، والتي أسهمت مساهمة المهندسين بتطوير الروبوتات.

كما ابتكر البروفيسور أسامة خطيب روبوت "أوشن ون": المصمم لاستكشاف أعماق البحار. يجمع الروبوت بين التفاعل البشري والقدرة المخصصة والمعالجة التلقائية. مما يمكنه من محاكاة المهارات البشرية والتفاعل مع البيئات المائية بدقة غير مسبوقة.



Professor Yacine Ait-Sahalia

Recipient of the Great Arab Minds Award in
Economics

Professor Yacine Aït-Sahalia

Professor of Finance and Economics at Princeton University

Professor Yacine Aït-Sahalia, born in 1966 in Algeria, is an economist known for his pioneering contributions to financial econometrics. Professor Aït-Sahalia initially undertook his higher education in France, first graduating with a degree in Mathematics from École Polytechnique in Palaiseau, France in 1987, before completing a master's degree in economics and Statistics at ENSAE in Paris in 1989. Following his graduation from ENSAE he completed a doctorate in economics at the Massachusetts Institute of Technology Department of Economics, graduating in 1993. At MIT, Professor Aït-Sahalia began his specialization in econometrics, authoring a thesis entitled Nonparametric Functional Estimation with Applications to Financial Models.

Following his graduation from MIT, Professor Aït-Sahalia initially continued his research at the University of Chicago, Graduate School of Business between 1993 and 1998, becoming a Professor of Finance in 1998. Since 1998, Professor Aït-Sahalia has been a faculty member at Princeton University, Department of Economics and Bendheim Center for Finance, where he has served as Otto A. Hack 1903 Professor of Finance and Economics since 2002 and was the Founding Director of the Bendheim Center for Finance between 1998 and 2014.

Throughout his illustrious academic career including over 80 publications and two books, Professor Aït-Sahalia has made fundamental contributions to the estimation and testing of continuous-time models in financial economics, recognized for revolutionizing the modelling of high-frequency financial data and continuous-time processes, particularly through his work on estimating volatility and jump processes using noisy data. Professor Aït-Sahalia's groundbreaking research, including influential papers such as Testing continuous-time models of the spot interest rate, Nonparametric estimation of state-price densities implicit in financial asset prices, and A Tale of Two Time Scales, introduced innovative econometric techniques, including those that minimize microstructure noise, providing precise methods for risk management and financial analysis. His work has also had

significant applications in asset pricing, option pricing, and understanding financial markets under uncertainty. More recently, Professor Aït-Sahalia has collaborated with Chenxu Li and Chen Xu Li in the development of implied stochastic volatility models which are stochastic volatility models designed to fit the implied volatility surface of options in his papers *Implied Stochastic Volatility Models*, *Closed-form Implied Volatility Surfaces for Stochastic Volatility Models with Jumps*, and *Maximum Likelihood Estimation of Latent Markov Models Using Closed-Form Approximations*.

Professor Aït-Sahalia has also served as an editor in a number of economic and econometric journals throughout his career. Between 2012 and 2018 he served as the Co-Managing Editor of the *Journal of Econometrics*, and was the Editor of the *Review of Financial Studies* between 2003 and 2006. He has also served as the Associate Editor of several journals throughout his career, including the *Annals of Statistics*, *Econometrica*, the *Journal of Finance*, *Finance and Stochastics*, and the *Journal of Financial Econometrics*.

Furthermore, Professor Aït-Sahalia's substantial achievements in Economics have been reflected in his election to numerous high-profile bodies. Since 2002, he has been a Fellow of the Econometric Society, a Fellow of the Institute of Mathematical Statistics since 2004, a Fellow of the American Statistical Association since 2008, a Fellow of the Society for Financial Econometrics since 2023, Fellow of the International Association of Applied Econometrics since 2020, and a member of the International Scientific Council of the Institut Louis Bachelier since 2016. Furthermore, he has received a number of prizes reflecting his achievements in econometrics, including the 1997 Michael J. Brennan Award for the best paper published in the *Review of Financial Studies*, the 1998 Cornerstone Research Award, the 2001 Annual FAME Research Prize, and the Dennis J. Aigner Award of 2003.

Professor Yacine Aït-Sahalia has made significant contributions to econometrics over his career, innovating new methods which have become widely regarded in the global economic community. Furthermore, through his long running position at Princeton University and external talks around the world, including in Algeria and Egypt, Professor Aït-Sahalia is in a position to inspire future generations of economists.



HH Sheikh Mohammed 
@HHSkMohd

بارك اليوم للفائز بجائزة نوابغ العرب عن فئة الاقتصاد لعام 2024، البروفيسور ياسين ايت سحالية من الجزائر

أستاذ المالية والاقتصاد في جامعة برينستون، والذي قدّم إسهامات استثنائية في تطوير مقياس اقتصادي مالي متقدمة، لتحديد مستويات تقلّبها، وفهم أنماط صعودها وهبوطها المستقبلية، مما ساهم في تحسين تحليل الأسواق المالية، وتقييم المخاطر الاقتصادية، ورفع كفاءة التخطيط المالي والاقتصادي..

بارك له فوزه، ونفخر بجميع نوابغ العرب الذين ألهمونا بإبداعاتهم.. وتلتقي بهم قريباً في حفل جائزة نوابغ العرب، بإذن الله..

Winner of the Great Arab Minds Award
in the Economics Category

2024

الفائز بجائزة نوابغ العرب عن
فئة الاقتصاد



البروفيسور ياسين ايت سحالية

Professor of Finance and Economics at Princeton University

The Great Arab Minds Award in Economics for 2024 is awarded to Professor Yacine Ait-Sahalia, Otto Hack 1905 Professor of Finance and Economics, for his pioneering contributions to financial econometrics, data measurement, and financial analysis. His work advanced the modeling of high-frequency financial data and continuous-time processes, enabling deeper understanding of variables.

Professor Ait-Sahalia developed high-frequency econometric methods to analyze financial data, estimate volatility, forecast market trends, and evaluate risk. His techniques for addressing microstructure noise and capturing market dynamics have provided essential tools for asset pricing and financial decision-making.

With over 80 academic studies and two books, Professor Ait-Sahalia's research introduced innovative methods for analyzing financial data, and enhancing economic planning.

أستاذ المالية والاقتصاد في جامعة برينستون

حازت جائزة نوابغ العرب عن فئة الاقتصاد لعام 2024 لنخب البروفيسور ياسين ايت سحالية لإسهاماته الرائدة في مجال قياس البيانات الاقتصادية والتحليل المالي وفهم الأنماط الاقتصادية. من خلال أعماله ودراساته حول نمذجة البيانات المالية عالية التردد والعمليات المستمرة في تحليل المتغيرات المالية والاقتصادية.

تشمل إسهامات البروفيسور ياسين ايت سحالية تطوير مقياس الاقتصاد مالي عالي التردد باستخدام وتحليل البيانات المالية لتحديد مستويات تقلّبها وتوقع أنماط صعودها وهبوطها المستقبلية، وتوظيفها في تقييم المخاطر وإدارة التحليل المالي.

نشر البروفيسور ياسين ايت سحالية أكثر من 80 دراسة أكاديمية وألّف كتابين حول نماذج تحليل المالي والتخطيط الاقتصادي المتكامل. أسهمت أبحاثه في تطوير أدوات اقتصادية مبتكرة لتحليل البيانات المالية وتعزيز كفاءة التخطيط الاقتصادي.



Professor Omar Yaghi

Recipient of the Great Arab Minds Award in
Natural Sciences

Professor Omar Yaghi

Professor of Chemistry at the University of California, Berkeley

Born in Amman, Jordan in 1965, Professor Omar M. Yaghi is a pioneer in the development of the new field of Reticular Chemistry. Professor Yaghi earned his bachelor's degree in chemistry, with distinction, from the State University of New York at Albany in 1985 and his PhD from the University of Illinois Urbana-Champaign in 1990, where he received the award for best dissertation. He completed a National Science Foundation postdoctoral fellowship at Harvard University from 1990 to 1992. His academic career began as an Assistant Professor at Arizona State University, before moving on to the University of Michigan and the University of California – Los Angeles. Since 2012 he has served as the James and Neeltje Tretter Chair Professor of Chemistry at the University of California, Berkeley, and serves as Co-Director of the Kavli Energy NanoSciences Institute. His groundbreaking research has revolutionized materials chemistry, developing the field of Reticular Chemistry, which concentrates on the stitching of molecular building blocks to produce open frameworks.

He is noted for his work in the synthesis, design, and application of metal-organic frameworks (MOFs) and covalent organic frameworks (COFs). Due to the remarkably high surface area of these compounds, in the region of 5000 m²/g, the open frameworks discovered by Yaghi have a wide range of applications. MOFs have been proven to have numerous significant applications in the healthcare industry, including in providing efficient support for enzyme immobilization, and can be used as a protective shield for a specific enzyme against environmental influences. Furthermore, MOFs have also been shown to play an active role in insulin development. Beyond healthcare applications, Yaghi has also utilized his discovery to try and solve the challenge concerning the storage of Hydrogen through his company H2MOF. Additionally, MOFs have emerged as a unique class of porous materials capable of trapping water at relative humidity levels as low as 10%, enabling the harvest of water from the air.

In addition to Professor Yaghi's discovery of MOFs and COFs, he has also developed a new class of compounds known as zeolitic

imidazolate frameworks (ZIFs). These materials also have a wide range of applications given their widely desired properties including inherent porosity, well defined pore aperture, ordered channel structure and high multidimensional stability. His profound discoveries have been documented in more than 300 journal articles containing more than 257,981 citations and a H-Index of 192 with a large quantity of publication in leading journals such as 'Nature', 'Science', 'Angewandte Chemie', 'Journal of the American Chemical Society', and 'Environmental Science'. Furthermore, his pioneering work in Reticular Chemistry has led to over 45 patents in the USA alone, enabling applications in gas separation, water harvesting, and catalysis, providing a significant real-world application of his work.

Beyond the lab, Professor Yaghi has been significantly involved in international collaborations with institutions around the world advancing clean energy and innovative materials science. He has served as Head of the Center for Reticular Materials at the NIMs in Japan, Director of the Carbon Capture and Conversion Group at KFUPM in Saudi Arabia, and Co-Founder of the Foundry for Reticular Materials for Sustainability at University Putra Malaysia amongst others. He has also mentored more than 70 Ph.D. students, 76 postdoctoral fellows, and 50 visiting scholars over his academic career, ensuring that his pioneering knowledge of chemistry is passed on to the next generation.

As a distinguished scientist, Professor Yaghi is a member of the US Academy of Science and the German National Academy of Sciences, and has received numerous prestigious awards, including the Wolf Prize in Chemistry, the Prince Sultan Bin Abdulaziz International Prize for Water, and the Albert Einstein World Award of Science amongst many more. He has also been recognized as a Highly Cited Researcher in Chemistry by Clarivate Analytics and honored with accolades such as the Materials Research Society (MRS) Medal and awards from the American Chemical Society.

Professor Yaghi's pioneering contributions to reticular chemistry have redefined the potential of molecular frameworks, offering transformative solutions to global challenges in energy and sustainability. His innovative work continues to shape the future of materials science, establishing him as a leading figure in the field.



HH Sheikh Mohammed

@HHSkhMohd

نبارك للفائز بجائزة نوابغ العرب عن فئة العلوم الطبيعية لعام 2024، البروفيسور عمر ياغي من الأردن.

قدم البروفيسور عمر ياغي، أستاذ الكيمياء بجامعة كاليفورنيا، بيركلي، إسهامات استثنائية في مجال الكيمياء الشبكية. حيث أسهمت ابتكاراته في تطوير تطبيقات رائدة لمواجهة تحديات الطاقة، والمياه، والبيئة، ونشر أكثر من 300 بحث علمي، وحظيت أعماله بأكثر من 250,000 استشهاد علمي...

نبارك له هذا الإنجاز العلمي، ونؤكد أن منطقتنا غنية بالعقول القادرة على صنع إضافات حقيقية للمعرفة البشرية في العديد من المجالات.

Winner of the Great Arab Minds
Award in Natural Sciences

2024

الفائز بجائزة نوابغ العرب عن
فئة العلوم الطبيعية



Professor Omar Yaghi

Professor of Chemistry at the University of California, Berkeley

البروفيسور عمر ياغي

أستاذ الكيمياء بجامعة كاليفورنيا، بيركلي

The Great Arab Minds Award in Natural Sciences for 2024 is awarded to Professor Omar Yaghi in recognition of his groundbreaking contributions to chemistry. Yaghi's pioneering work advanced reticular chemistry, a revolutionary field focused on linking molecular building blocks into open frameworks through strong bonds. His research has led to the development of advanced materials, including Metal-Organic Frameworks (MOFs) and Covalent Organic Frameworks (COFs).

These innovative materials have diverse applications, addressing critical global challenges such as carbon capture, clean energy production, water harvesting, and catalysis. With over 300 research papers and more than 250,000 citations, Professor Yaghi's work has profoundly transformed material science, offering sustainable solutions for a better future.

جائزة نوابغ العرب عن فئة العلوم الطبيعية لعام 2024 منح للبروفيسور عمر ياغي تقديراً لإسهاماته الاستثنائية في مجال الكيمياء. لقد أسهمت أبحاثه في مجال الكيمياء الشبكية، حيث طور أساليب مبتكرة لربط الوحدات البنائية لتشكيل هياكل مفتوحة عبر روابط قوية لتتيح ابتكاراته في المساهمة في تطوير مواد متقدمة مثل الأطر العنقودية العضوية (MOFs) والأطر العنقودية التساهمية (COFs).

تميز هذه المواد بتطبيقاتها الواسعة التي تشمل التقاط الكربون، إنتاج الطاقة النظيفة، استخلاص المياه من الهواء والتحفيز الكيميائي، مما يجعلها أساسية في مواجهة التحديات البيئية العالمية. نشر البروفيسور ياغي أكثر من 300 بحث علمي وحظيت أعماله بأكثر من 250,000 استشهاد علمي، مما يعكس تأثيره العميق في علوم المواد وتطوير حلول مستدامة لمستقبل أفضل.



Architect Sahel Al Hiyari

Recipient of the Great Arab Minds Award in
Architecture and Design

Architect Sahel Al Hiyari

Architect and Urban Designer

Sahel Al Hiyari, born in 1964 in Jordan, is an architect renowned for his projects which blend contemporary design with traditional architectural elements, creating spaces that balance heritage, modernity, and nature. Prior to his successful professional career, Sahel Al Hiyari studied Architecture and Fine Arts at the Rhode Island School of Design, receiving a Bachelor's degree. He subsequently went on to receive a Master of Architecture from the Graduate School of Design at Harvard University before carrying out post-graduate work and teaching at the University of Venice in Italy.

Professionally, he serves as the Principal Architect at his Amman-based architectural practice named the Office of Sahel Al Hiyari for Architecture (OSAA). The OSAA, under the leadership and design of Sahel Al Hiyari covers a wide spectrum of design-related disciplines ranging from urban design, interior, and furniture design, to architectural installations and exhibition design. Al Hiyari is best known for his architectural projects in Amman which effectively integrate innovative designs into their natural surroundings. Hiyari view each plot of land independently rather than a constituent of the broader urban fabric, whilst concurrently tries to integrate traditional styles which have been lost in the modern Amman building sector.

One such example is Barghouti House, a residential house built in Dabbouq, west of Amman, a region which has seen significant environmental damage as a result of mass development. Al Hiyari, choose to sensitively construct the monolithic building around the existing landscape, following the topographic lines of the plot and integrating the mature oak trees of the plot. Hiyari also designed Saket house in the same area, where he utilized mechanical cladding, to ensure that the building façade maintained a traditional style whilst simultaneously allowing moisture to escape and minimizing staining. These designs demonstrate the synergies between design, materiality and technique with the cultural context create an architecture that proposes diversity, change and place-related transformation which Hiyari's architecture firm seek to achieve.

In addition to his architectural achievements, Al Hiyari has substantial experience in teaching, enabling him to pass on his expertise to future architectural talent. He has taught at "Arch Lab", a design studio organized by the Centre for the Study of the Built Environment (CSBE) in collaboration with the Aga Khan Award for Architecture in 2002 and 2004, as well as at an option studio at Harvard University's Graduate School of Design in 2010, and at a vertical design studio at the American University of Beirut in 2011. He has also lectured at Columbia University in New York, the Physical Development Research Centre in Iran, the Jordan University of Science and Technology, Harvard University, the American University of Beirut, and ETH Zurich.

Furthermore, Al Hiyari's talent has been reflected in his reception of global awards in architecture, including being the first architect to win the Rolex Mentor and Protégé Arts Initiative in 2011, furthermore his projects have also been nominated at the Arab Architects Awards. He has additionally served as a reviewer and a member of the Master Jury for the Aga Khan Award for Architecture as well as on the jury for the Omrania | CSBE Student Award for Architectural Design, demonstrating his high regard in the architecture community.

Hiyari has also seen his work published internationally in globally recognised publications such as in Jordan at "The Khalid Shoman Foundation" and in New York at "The Center of Architecture", allowing greater exposure for his spaces that balance heritage, modernity, and nature. In addition to his substantial architectural achievements, Al Hiyari is also a painter and has exhibited in Jordan, Lebanon and Italy demonstrating his multifaceted creative skill.

Sahel Al Hiyari has successfully forged a career innovating the combination of the traditional and the contemporary, allowing Amman to rediscover its architectural heritage, and providing the Middle East with a true role model in Architecture and Design.



HH Sheikh Mohammed

@HHShkMohd

تهنئ الفائز بجائزة نوابغ العرب عن فئة العمارة والتصميم لعام 2024، المهندس المعماري سهل الحيارى.

من الأردن، حيث استلهم جمال الطبيعة وعشق التراث، يقدم المهندس سهل الحيارى تصاميم تجمع بين التراث والحداثة، وبين الهوية والطبيعة. أبدع في الحديد من المشاريع المعمارية المميزة، وشارك في تدريس العمارة وعرض أبحاثه وأعماله في أبرز الجامعات العالمية.

العالم العربي يمتلك إرثاً عظيماً في مجال العمارة... مشاريعنا المعمارية في كل دولة عربية تروي قصص الحضارة والمكانة التي بنيناها عبر التاريخ.

Winner of the Great Arab Minds Award
in the Architecture and Design

2024

الفائز بجائزة نوابغ العرب عن
فئة العمارة والتصميم



Architect Sahel Al Hiyari

Architect and Urban Designer

The Great Arab Minds Award in Architecture & Design for 2024 is awarded to Architect Sahel Al Hiyari for his pioneering contributions to modern Arab architecture. Renowned for blending contemporary design with traditional architectural elements, Al Hiyari creates spaces that balance heritage, modernity, and nature.

His projects emphasize sensitivity to local context and sustainability by using local materials and techniques, preserving natural resources while enhancing cultural identity. His innovative designs reflect a strong connection to nature and the region's geography.

In addition to his architectural work, Al Hiyari has contributed research on contemporary architecture and has taught at the American University of Beirut, Harvard University, and Columbia University.

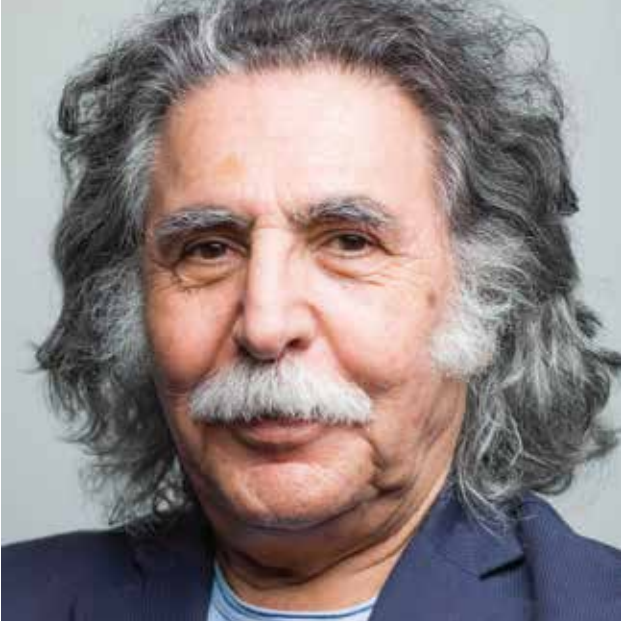
المهندس المعماري سهل الحيارى

مهندس معماري ومصمم حضري

جائزة نوابغ العرب عن فئة العمارة والتصميم لعام 2024 تُمنح للمهندس المعماري سهل الحيارى تقديراً لإسهاماته الريادية في تطوير العمارة العربية الحديثة. يدمج الحيارى بدمج مبادئ التصميم المعاصر مع العناصر التقليدية، مما يخلق مساحات تجمع بين التراث والحداثة والطبيعة بشكل متوازن.

تتم مشاريعه بحساسية للسياق المحلي وفتح مساحات يعتمد على استخدام المواد والتقنيات المحلية، مما يساهم في الحفاظ على البيئة وتعزيز الهوية الثقافية. تصاميمه تعكس ارتباطاً بديناميها المتنقلة والهوية المحلية لكل مشروع.

إلى جانب مشاريعه، قام الحيارى بدراسات وأبحاثاً تاريخية في مجال العمارة المعاصرة، وأسهم في الفعاليات الأكاديمية من خلال التدريس في جامعات متعددة منها الجامعة الأمريكية في بيروت، وجامعة خليفة، وجامعة كولومبيا.



Artist Dia al-Azzawi

Recipient of the Great Arab Minds Award in
Literature and Arts

Artist Dia al-Azzawi

Visual Artist specializing in contemporary Arab Art

Born in Baghdad, Iraq in 1939, Dia al-Azzawi is an influential multi-disciplinary artist whose work spans painting, sculpture, printmaking, and design. Growing up in the al-Fadhil neighbourhood of Baghdad, al-Azzawi was able to develop strong relationship with his traditional Arab surroundings influencing his future artwork. Azzawi studied architecture at Baghdad University in the early 1960s, before obtaining a further degree from the Baghdad Institute of Fine Arts in 1964. His experiences at university where he was exposed to Iraqi artistic pioneers such as Faeq Hassan and Hafidh al-Droubi enabled the formation of Azzawi's artistic style of innovatively utilizing Arab heritage, folklore, and history in art bridging the traditional and the contemporary, fostering cross-cultural dialogue.

In 1968, Azzawi authored the manifesto *Towards a New Vision*, a foundational text written in reaction to the collapse of pan-Arabism, which inspired Arab cultural activities such as the al-Wasiti Festival (1972) and the Union of Arab Artists (1973). Azzawi, along with fellow artists Rafa Nasiri, Mohammad Muhridin, Ismail Fattah, Hachem al-Samarchi and Saleh al-Jumaie formed the New Vision group (al-Ru'yya al-Jadidah) in 1949, uniting fellow artists ideologically and culturally as opposed to stylistically. Through his involvement with the New Vision group Azzawi found inspiration in contemporary subjects and issues across the Arab world, serving to enable the connection between the region and art. Prior to his move to London in 1976, Azzawi served at the Director of the Iraq Antiquities Department in Baghdad between 1968 and 1976. Throughout this period in Baghdad, Azzawi also had a number of solo exhibition at the Al Wasitit Gallery, Gallery One, the Iraqi Artists' Society, and the National Museum of Modern Art. Azzawi was also the first Iraqi artist to have solo exhibitions abroad, with his work shown at the Sultan Gallery in Kuwait on three occasions in the 1960s and 1970s, as well as at the Arslan Raad Gallery in Tripoli, Lebanon in 1973.

Since being based in London, Azzawi's art and actions have maintained a strong link to the Arab world. Azzawi became the

Artistic Director of the Iraqi Cultural Centre in London, as well as being editor of the 'Ur' journal published by the Iraqi Cultural Centre in London and of the Funoon Arabiyyah journal. Furthermore, his artistic creations have maintained their connection with the Arab world, often inspired by the tumultuous political history of Iraq of the last half a century and the plight of the people of Palestine. Azzawi's works address themes of displacement and injustice, most notably in Sabra and Shatila Massacre (1982–83), a poignant tribute to Palestinian suffering now housed in Tate Modern. This can also be observed in The Land of Sad Oranges set of drawings, inspired by the short stories of Palestinian writer Ghassan Kanafani who was murdered in 1972. Azzawi's Iraqi heritage is vividly demonstrated in his colossal four by ten-meter monochromatic work My Broken Dream, an attempt to document a peoples pain following the 2003 invasion of the country with the precise employment of contemporary abstract style.

His artwork has subsequently been exhibited worldwide, with current collections at the British Museum, the Library of Congress in Washington DC, the Tate Modern in London, the V&A in London, and the Bibliothèque Nationale de France in Paris. He also has large collections around the Arab region, including in Iraq, Jordan, Qatar and the UAE.

Beyond his practice, Azzawi supports other artists by publishing, collecting, curating, and donating to public institutions, creating more than 100 unique books. His Amman-based ceramics studio hosts emerging Arab talent, while his Arabic-language magazine Makou sheds light on Iraqi modern art. Azzawi's leadership in global initiatives, such as exhibitions on Third World graphic art and international poster competitions, underscores his dedication to freedom of expression and the Arab experience.

Azzawi's accolades include the Dia al-Azzawi Prize for Public Art, the Nile Prize for Creativity, and an Honorary Doctorate of Arts from Coventry University. With a career spanning six decades, Dia al-Azzawi remains a transformative figure in Arab art and a custodian of its rich cultural legacy.



HH Sheikh Mohammed

@HHSkMohd

نهته الفائز بجائزة نوابغ العرب عن فئة الأدب والفنون، الفنان ضياء العزاوي من العراق، حيث استلهم تراث بلاد الرافدين ليقيم العديد من الأعمال الفنية التي عُرضت في أبرز متاحف ومعارض العالم، وتناولت أصاله قضايا إنسانية عربية، ودمجت بين الخط والشعر والتراث بأسلوب فني معاصر...

نبارك للفنان ضياء العزاوي فوزه، ونحتفي بإبداعاته التي ألهمت الأجيال وجعلت من الفن العربي رسالة عالمية مؤثرة...

Winner of the Great Arab Minds
Award in Literature & Arts

2024

الفائز بجائزة نوابغ العرب عن
فئة الأدب والفنون



Artist Dia Al-Azzawi

Visual Artist specializing in contemporary Arab Art

The Great Arab Minds Award in Literature and Arts for 2024 is awarded to Artist Dia Al-Azzawi in recognition of his exceptional contributions to the development of contemporary Arab art over decades. Al-Azzawi has produced hundreds of artworks and organized and participated in numerous art exhibitions worldwide, significantly bridging contemporary art with Arab culture, history, and its most pressing issues. His works embody Arab identity and heritage through a creative style that seamlessly blends modernity with tradition.

Al-Azzawi is distinguished for his use of visual art, Arabic calligraphy and sculpture to highlight events and challenges relevant to the Arab world in a contemporary style that resonates with global audiences. His innovative approach integrates Arabic letters and poetry into modern artistic expressions, skillfully blending text and imagery in a unique and creative manner. His works have been showcased in leading museums and prominent global art galleries, providing the world with a contemporary perspective on Arab culture and heritage.

الفنان ضياء العزاوي

فنان تشكيلي متخصص في الفن العربي المعاصر

جائزة نوابغ العرب عن فئة الأدب والفنون لعام 2024 تُمنح للفنان ضياء العزاوي تقديراً لإسهاماته الاستثنائية في تطوير الفن العربي المعاصر على مدى عقود. قدم العزاوي العديد من الأعمال الفنية ونظم وشارك في عشرات المعارض الفنية حول العالم، مساهماً بشكل كبير في ربط الفن المعاصر بالثقافة العربية. انعكست في أعماله الهوية القومية والقضايا العربية بأسلوب إبداعي يمزج بين الحداثة والأصالة.

يمتاز العزاوي بتوظيف الفن التشكيلي والخط العربي والتحدث لإبراز الأحداث والتحديات المعاصرة بالعالم العربي بأسلوب عصري يخاطب جمهوراً عالمياً كما ابتكر بأسلوب فريد دمجاً بين الحروف العربية والشعر العربي في أعمال فنية حديثة، حيث تناولت الكلمات مع الصور بطريقة إبداعية. عُرضت أعماله في متاحف ومعارض عالمية بارزة لعرض العالم بالثقافة العربية وإثبات الفن من خلال رؤية فنية معاصرة.

نوابغ العرب Great Arab Minds



**"The Great Arab Minds Award — a seed we
plant today to shape a brighter future."**

His Highness Sheikh Mohammed bin Rashid Al Maktoum

UAE Vice President, Prime Minister, and Ruler of Dubai