NCCC
2024

المؤتمر الوطني السادس لكليات الحاسب
THE 6TH NATIONAL COMPUTING COLLEGES CONFERENCE

6th National Computing Colleges Conference (NCCC 2024)
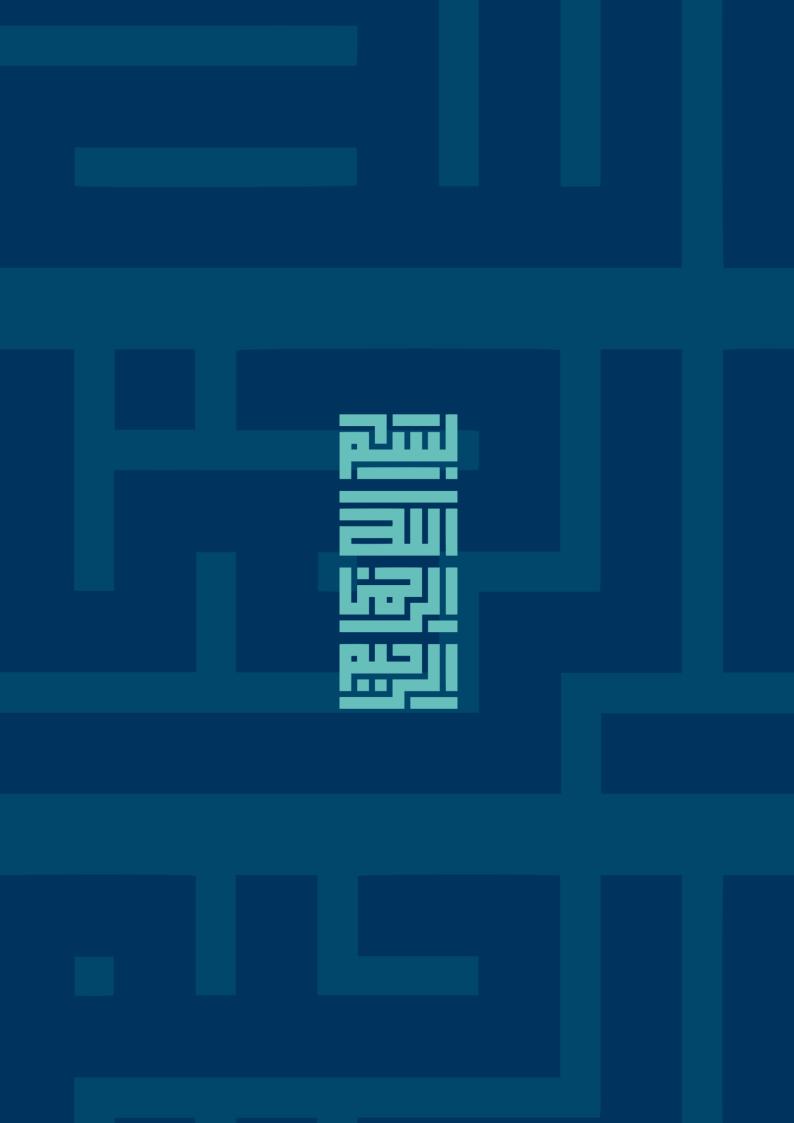
FOSTERING COLLABORATION TOWARDS
INNOVATIVE AND SUSTAINABLE
TECHNOLOGICAL FUTURE

8–9 MAY 2024

IAU, DAMMAM, Saudi Arabia

nccc.iau.edu.sa

بسم الله الرحيم الرحيم

NCCC 2024

المؤتمر الوطني السادس لكليات الحاسب

THE 6TH NATIONAL COMPUTING COLLEGES CONFERENCE

Under the Patronage of His Excellency

Prof. Abdullah M. Alrubaish

President of Imam Abdulrahman
Bin Faisal University

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

NGCC 2024

المؤتمر الوطني السادس لكليات الحاسب
THE 6TH NATIONAL COMPUTING COLLEGES CONFERENCE

Welcome Note

On behalf of the organizers of the 6th National Computing Colleges Conference (NCCC 2024), I would like personally welcome each of you at the College of Computer Science and Information Technology (CCSIT), Imam Abdulrahman Bin Faisal University (IAU). It is an exciting time for our college and university to host such a prestigious event at our premises. Since its inception in 2016, the National Computing Colleges Conference has been a hallmark event in the realm of computer science education. It began with a vision to bridge the gap between academia and industry, providing a platform for thought leaders, educators, and professionals to exchange ideas and insights.

Dr. Abdullah M. Almuhaideb
Supreme Committee, NCCC 2024

The inaugural edition set the stage for a series of successful conferences that have continued to evolve and grow in significance over the years. Each edition has brought together experts and enthusiasts, fostering dialogue on emerging trends, best practices, and the future of computing education. This conference offers an invaluable platform for professionals, scientists, researchers, engineers, educators, and students in the fields of computer science, computer engineering, and information technology from across the globe to come together and exchange their scientific contributions, ideas, and perspectives. The NCCC 2024 be held on May 8-9, 2024, at Building#D3, Imam Abdulrahman Bin Faisal University, Dammam.

The 6th National Computing Colleges Conference (NCCC 2024) is considered the premier Saudi Universities event. It connects leaders, experts, and researchers at both the local and global levels. In its previous 5 editions, the conference focused on topics related to computing applications such as Big Data, and Analytics, Artificial Intelligence and Machine Learning.

Welcome Note

Dr. Abdullah M. Almuhaideb
Supreme Committee, NCCC 2024

Current edition themes of the conference:

01 Fostering Education Quality to Develop Human capabilities.

02 Research, Innovation and Entrepreneurship.

03 The Role of Technology in Community Services.

04 Fostering The Future of Technology.

Topics of interest:

Artificial intelligence

Cybersecurity

Internet of things(IOT)

Software Engineering

Cloud Computing

Blockchain

Network Computing

Data Science

Wireless & Mobile Computing

Quantum Computing

Study this booklet to maximize opportunity over two rich days. Once again, I would like to welcome you to the NCCC 2024 and if you need any kind of assistance, please do not hesitate to call the organizing committee.

Thank you for joining us!

NCCC 2024 Organizers

D3

العمادات المساندة
SUPPORTIVE DEANSHIPS

مبنى العمادات المساندة
Supportive
Deanships Bldg

Conference Venue

D3, Imam Abdulrahman Bin Faisal University, Dammam, KSA

The main campus of Imam Abdulrahman Bin Faisal University (IAU) is located in Dammam—the largest city in the Eastern Province of Saudi Arabia. Dammam is an important Saudi port on the Arabian Gulf. Recently, it expanded to the limits of its modern neighboring towns—Al-Khobar and Al-Dhahran. Dammam is the home for world's most important centers for petroleum production and refining. The population of the region surpasses a million. IAU is located about ten kilometers from the Arabian Gulf, seven kilometers from the city of Al-Khobar, twenty kilometers from Dammam's province's administrative capital, and 45 kilometers from King Fahd International Airport.

Venue

Building D3
Imam Abdulrahman Bin Faisal University, Dammam, KSA.

8–9 MAY 2024

8:00 AM

To stay informed about the latest conference updates:

@ccsit_nccc   nccc.iau.edu.sa

nccc.iau.edu.sa

Organizers
& Sponsors

NCCC 2024

المؤتمر الوطني السادس لكليات الحاسب
THE 6TH NATIONAL COMPUTING COLLEGES CONFERENCE

Conference Organizers

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY
كلية علوم الحاسب وتقنية المعلومات
College of Computer Science and Information Technology

كرسي أرامكو السعودية للأمن السيبراني
في جامعة الإمام عبدالرحمن بن فيصل
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معهد الابتكار وريادة الأعمال
Institute of Innovation and Entrepreneurship

CoderHub كودرهب

Agenda

Day 1 [8 MAY 2024]

8:00 - 8:30 — Reception, registration, and exhibition

8:30 - 9:00 — The opening of the exhibition

9:00 - 9:30 — Opening ceremony

9:30 - 9:50

Keynote
From Lab to Launchpad: Navigating the Entrepreneurship Journey

Dr. Yazeed Alabdulkarim
Advisor, Research, Development & Innovation - SITE

9:50 - 10:50

1st Panel Discussion
Empowering Tomorrow's Innovators: The Role of Computer Colleges in Fostering Research, Innovation, and Entrepreneurship

Dr. Mariam Nouh   Prof. Iyad katib
Dr. Motaz Alfarraj   Eng. Kais Alessa

Moderator:
Dr. Sumayh Aljameel

10:50 - 11:15 — Break – Exhibition

11:15 - 11:30

Spotlight Talk
Safeguarding the Future: Prioritizing Cybersecurity in the Education Sector

Mr. Nawaf Alaboudi
Governance, Risk, and Compliance Director, Cipher

11:30 - 12:30

2nd Panel Discussion
The Role of Computing Colleges in Fostering Education Quality for Human Development

Eng. Faris Alsaqabi   Eng. Sami Alhussayen
Eng. Omar Althukair   Dr. Moudhi Aljamea
Dr. Adel Ahmed

Moderator:
Dr. Khalid Alissa

12:30 - 1:00 — Prayer Break

1:00 - 2:30

Parallel Workshops

1st Workshop (1:00 – 1:45)
Automating the validation of phishing sites using AI

Ms. Reem Alfaleh
Cyber Threats Intelligence Analyst, Cipher

2nd Workshop (1:45 – 2:30)
Building a Red Team Infrastructure

Mr. Omar Alsadoon
Penetration Testing Consultant, Cipher

3rd Workshop
Chat with your Documents using LLMs

Eng. Heelah Alraqibah
Lead Engineer, Innovation Labs, Research, Development & Innovation - SITE

4th Workshop
Unlocking the Potential: Utilizing SITE Range to Evaluate Knowledge, Skills, and Abilities in Cybersecurity Education Programs Based on SCyWF

Eng. Sultan Alhazmi
Senior Cybersecurity Consultant, Human Capital Development Advisory - SITE

2:30 - 3:30 — Lunch

Day 2 [9 MAY 2024]

9:00 - 10:30
Parallel Workshops

5th Workshop
EPP Explained: A Deep Dive into Endpoint Security

Ms. Nouf Alqahtani
Cybersecurity Services Engineer at Sahara Net

6th Workshop
Hack the Planet: Exploiting Azure Cloud Misconfiguration Vulnerabilities

Eng. Ibrahim Buhaimed
Offensive Cybersecurity Consultant

7th Workshop
Streamlining Work and Life with Notion

Mr. Hassain Alsayhah
President - KFUPM Computer Club, Consultant -Google Developer Club

8th Workshop
STEPs: A Journey Toward Cyber Security

Mr. Talha Riaz
Principal Cybersecurity Consultant, Cyberani

10:30 - 11:00 Break – Exhibition

11:00 - 11:20

Keynote
Redefining Education in the AI Era: Opportunities, Challenges, and Ethical Considerations

Dr. Sarah Alhumoud
Associate Professor at Imam Muhammad bin Saud Islamic University, Tech Innovation and AI Consultant

11:20 - 11:35

Spotlight Talk
The NLP Revolution: Pioneering Academic Insights into Market Innovations

Ms. Rawan Almaatham
Research and Innovation Manager at KSAA, Entrepreneur

11:35 - 12:35

3rd Panel Discussion
The Role of Technology in Community Services

Dr. Shahir Alshehri   Dr. Abdullah Alharbi
Dr. Nashir Albin hassan   Prof. Suliman Alsuhaibani

Moderator:
Dr. Dina Alabbad

12:35 - 1:00 Prayer Break

1:00 - 1:15

Spotlight Talk
Retrieval Augmented Generation for Large Language Models

Dr. Abdulaziz Almaslukh
Senior Researcher, Research, Development & Innovation – SITE

1:15 - 1:30

Spotlight Talk
The journey to Modernization and AI

Layla Bajunaid
Senior System Engineer, DELL\Intel

1:30 - 2:30

4th Panel Discussion
The alignment of academic programs with the Saudi Framework for Higher Education in Cybersecurity (SCyber-Edu)

Dr. Bandar Alkhayal   Dr. Mohammed Alshara
Dr. Abdullah Almuhaideb   Dr. Talal Albalawi

Moderator:
Mr. Ibrahim Alnamlah

2:30 - 3:30 **Closing Ceremony**

3:30 - 4:30 Lunch

Speakers

Speakers
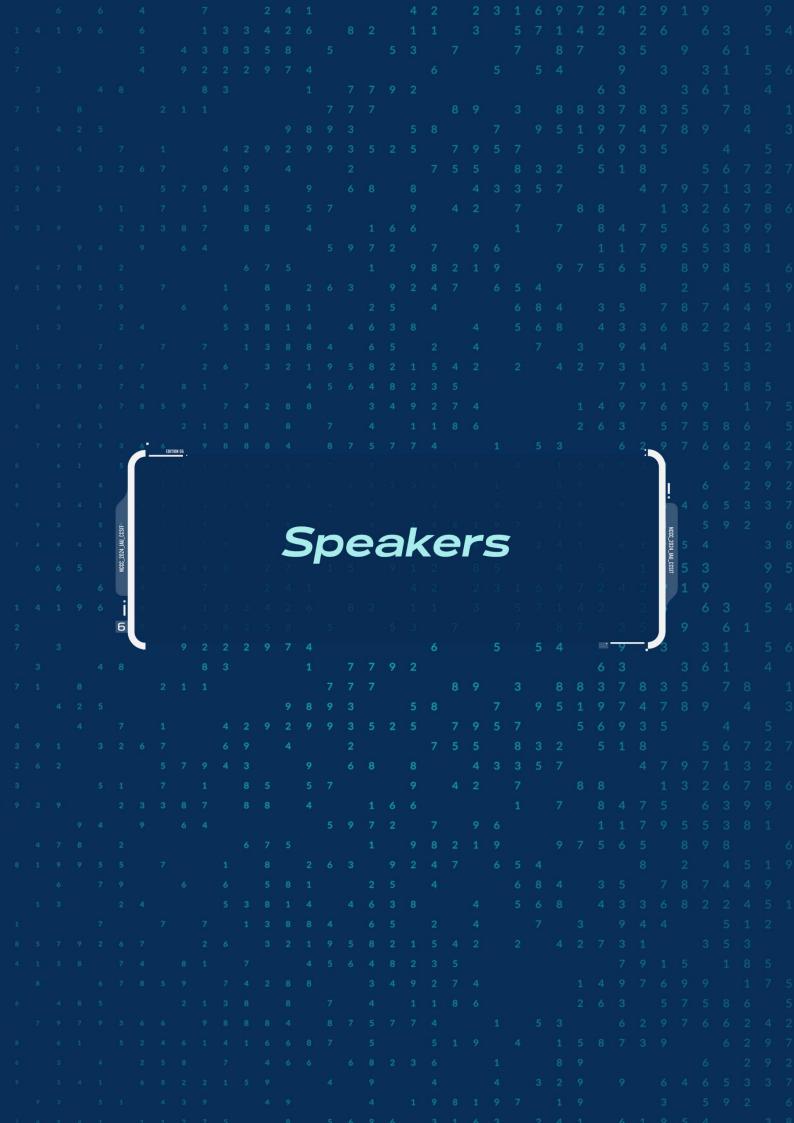
Eng. Faris Alsaqabi
Deputy Minister, Human Capability Development, General supervisor of Digital Transformation Deputyship

وزارة الصناعة والثروة المعدنية
Ministry of Industry and Mineral Resources

Dr. Mariam Nouh
VP Economies of the Future Sector, KACST

KACST
مدينة الملك عبدالعزيز للعلوم والتقنية

Dr. Moudhi AL Jamea
Dean of STC academy & Vice president of STC

stc

Eng. Omar Althukair
Director of Information Protection Department, ARAMCO

أرامكو السعودية
saudi aramco

Eng. Sami Alhussayen
Managing Partner, Thakaat

Thakaat ذكاءات

Dr. Bandar AlKhayyal
General Director of Program Accreditation - National Center for Academic Accreditation and Evaluation Education and Training Evaluation Commission

Speakers

Eng. Kais A. Al Essa

Founding Partner and CEO of Vision Ventures,
Vice Chairman of the Saudi VCPE Association

VENTURE CAPITAL
AND PRIVATE EQUITY
ASSOCIATION

Prof. Iyad A. Katib

Dean of College of Computing and Information
Technology - KAU

Prof. Suliman Alsuhaibani

Dean of the college of computer,
Qassim University

Qassim University جامعة القصيم

Dr. Adel Fadhl Ahmed

Dean of College of Computing and
Mathematics, KFUPM

Dr. Abdullah Almuhaideb

Dean, College of Computing and Information
Technology, Imam Abdulrahman Bin Faisal
University (IAU)

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IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

Dr. Khalid Adnan Alissa

Dean, Information and Communication Technology,
Imam Abdulrahman Bin Faisal University (IAU)

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IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

Speakers

Dr. Abdullah Alharbi

Dean, College of Applied Computer Sciences,
King Saud University - Muzahimiyah Branch

جامعة الملك سعود
King Saud University

Dr. Talal Albalawi

Dean, College of Computer and Information Science,
Imam mohammad bin saud islamic university

IMSIU
جامعة الإمام محمد بن سعود الإسلامية
IMAM MOHAMMAD IBN SAUD ISLAMIC UNIVERSITY

Dr. Mohammed Alshara

Dean Collage of Computer & Information
Science, prince sultan university

جامعة الأمير سلطان
PRINCE SULTAN
UNIVERSITY

Dr. Motaz Alfarraj

Chairman, Information and Computer
Science Department, KFUPM

Dr. Sumayh Aljameel

Chair of Computer Science Department,
Imam Abdulrahman Bin Faisal University (IAU)

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

Dr. Dina Alabbad

Head of Computer Information Systems,
Imam Abdulrahman Bin Faisal University (IAU)

NCCC 2024

جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

Speakers

Dr. Sarah Alhumoud

Associate Professor of Computer Science (IMSIU), Technology and Artificial Intelligence Consultant.

Dr. Shahir Alshehri

Chairman of the Board of Directors of Al-Rahma Medical Charitable Society in the Eastern Province

Dr. Nasher AlBinHassan

Financial Supervisor on the Board of Directors of Al Baraka Charitable Society

Dr. Yazeed Alabdulkarim

Chief Scientist, Saudi Information Technology Company (SITE)

Dr. Abdulaziz Almaslukh

Senior Researcher, SITE

Mr. Ibrahim Alnamalh

National Cybersecurity Authority

Speakers

Ms. Rawan Almaatham
ANLP Research and Innovation manager at KSAA- Entrepreneur

مجمع الملك سلمان العالمي للغة العربية
King Salman Global Academy for Arabic Language

Mr. Nawaf Alaboudi
Head of Cyber GRC Advisory, Cipher

CIPHER

Ms. Layla Bajunaid
Senior System Engineer, DELL\Intel

DELL Technologies | intel.

Mr. Talha Riaz
Principal Cybersecurity Consultant

Cyberani

Workshops

Workshop #1:

Automating the validation of phishing sites using AI

Short Description

In this session, you will learn first-hand how to automate the validation of brand impersonation sites, thus saving you precious time allowing the remediation process to begin faster and reduce the risk to customers.

Ms. Reem Alfaleh
Threats Intelligence Analyst, Cipher

CIPHER

Workshop #2:

Building a Red Team Infrastructure

Short Description

Join us in our workshop on building a red team infrastructure, where we'll guide you through setting up your command and control (C2) server and crafting effective phishing campaigns. Learn how to simulate real-world cyber threats and strengthen your organization's resilience against them. Get ready to dive deep into offensive security tactics and emerge with practical skills to defend against evolving cyber threats.

Mr. Omar Alsadoon
Penetration Testing Consultant, Cipher

CIPHER

Workshop #3:

Chat with your documents using LLMs

Short Description

Chat with your documents workshop helps participants in the transformative capabilities of Language Model (LLM) focusing on Retrieval Augmented Generation (RAG). The workshop covers the following: RAG, which leverages LLM to retrieve contextual documents, and crafting chatbot that respond to queries based on document content rather than pre-trained data. Participants explore into practical aspects including document loading from diverse sources, optimal data splitting techniques, and the integration of vector stores and embedding. Advanced retrieval techniques enable participants to access and index data efficiently for user queries. By combining RAG framework and LLM capabilities, participants gain the skills to build interactive applications that revolutionize document interaction, enhancing productivity and innovation.

Ms. Heelah Abdullah Alraqibah

Lead Engineer, Innovation Labs, Research, Development & Innovation - SITE

Workshop #4:

Unlocking the Potential: Utilizing SITE Range to Evaluate Knowledge, Skills, and Abilities in Cybersecurity Education Programs Based on SCyWF

Short Description

This workshop will delve into the innovative capabilities of SITE Range, which offers a dynamic technical assessment approach through practical exercises designed to simulate real-world scenarios. Attendees will gain firsthand experience with SITE Range's capacity to measure competencies aligned with SCyWF. Furthermore, we will explore how SITE Range facilitates the generation of comprehensive reports, empowering instructors with valuable insights into students' progress. This formal workshop promises to provide an insightful exploration of SITE Range's role in enhancing assessment methodologies and fostering student development.

Eng. Sultan Alhazmi

Senior Cybersecurity Consultant, Human Capital Development Advisory - SITE

Workshop #5:

EPP Explained: A Deep Dive into Endpoint Security

Short Description

This workshop aims to: (1) Educate participants about the importance of EPP in modern cybersecurity. (2) Introduce participants to the With Secure platform and its components. (3) Provide an overview of the key features and capabilities of EPP solutions. (4) Demonstrate the practical application of EPP functionality through live demonstrations.

Ms. Nouf Alqahtani
Cybersecurity Services Engineer at Sahara Net

Workshop #6:

Hack the Planet: Exploiting Azure Cloud Misconfiguration Vulnerabilities

Short Description

As Microsoft's cloud services, especially Azure Active Directory (AAD), continue to expand, it's crucial to understand their inherent vulnerabilities. This workshop will delve into how misconfigurations in AAD can lead to severe security breaches, including privilege escalation attacks. We will examine two primary scenarios: improper management of dynamic group settings and errors in activating Managed Identity on virtual devices. Through detailed presentations and analysis of screenshots, participants will learn about the potential risks and receive guidance on preventative strategies to enhance the security of cloud-based systems.

Eng. Ibrahim Buhaimed
Senior Offensive Cybersecurity Consultant

Workshop #7:

Streamlining Work and Life with Notion

Short Description

Boost Your Efficiency, Conquer Your Chaos: Master Notion and Transform Your Life. In this workshop, attendees will learn how to leverage the powerful productivity tool Notion to streamline their personal and professional lives. We'll explore what Notion is, why it's become a popular choice, and the key motivations for using a comprehensive management solution and finishing of with a hands-on session that will guide participants through building practical Notion pages tailored to their needs from organizing tasks and notes to creating calendars and databases. By the end, attendees will have the skills to implement Notion as a transformative tool to optimize their workflow and enhance productivity.

Mr. Hassain Alsayhah

President - KFUPM Computer Club,
Consultant - Google Developer Club

Workshop #8:

STEPs: A Journey Toward Cyber Security

Short Description

STEPs, A structured roadmap for those aspiring to become cybersecurity analysts. The model outlines a comprehensive journey through essential stages, from foundational awareness and education to advanced security practices and community leadership. Each step is designed to build the requisite skills and knowledge, fostering a proactive and informed approach to cybersecurity.

Mr. Talha Riaz

Principal Cybersecurity Consultant

Cyberani

Panel Discussions

Panel Discussion #1:

Empowering Tomorrow's Innovators: The Role of Computer Colleges in Fostering Research, Innovation, and Entrepreneurship

Speakers:

- Dr. Mariam Nouh
- Prof. Iyad katib
- Dr. Motaz Alfarraj
- Eng. Kais Alessa

Moderator:

Dr Sumayh Aljameel

Abstract

In alignment with Saudi Arabia's Vision 2030, this panel discussion addresses the vital roles of research, innovation, and entrepreneurship in transitioning Saudi Arabia to a knowledge-based economy. This panel discussion will delve into the critical role computer colleges play in shaping the future. The landscape of technology is constantly evolving, demanding a new generation of innovators equipped to tackle complex challenges. The members will highlight the crucial role of computer colleges in nurturing tomorrow's brightest minds. This panel discussion is a must-attend for anyone interested in the future of technology and the crucial role computer colleges play in shaping the minds of tomorrow's innovators. By bringing together diverse perspectives from educators, industry leaders, and innovators, this panel discussion aims to spark a dialogue on how computer colleges can effectively empower the next generation of technological pioneers.

Panel Discussion #2:

The Role of Computing Colleges in Fostering Education Quality for Human Development

Speakers:

- Eng. Faris Alsaqabi
- Eng. Omar Althukair
- Eng. Sami Alhussayen
- Dr. Moudhi Aljamea
- Dr. Adel Ahmad

Moderator:

Dr. Khalid Adnan Alissa

Abstract

In today's increasingly technological world, computing skills are no longer a niche but a fundamental aspect of human development. This panel discussion will explore the vital role computing colleges play in fostering a high-quality education that equips individuals to thrive in the digital age. We bring together experts from academia, industry, and government to engage in a thought-provoking conversation about how computing colleges can be leveraged to cultivate a future-ready generation equipped with the skills and knowledge to drive positive change in the world. This panel discussion will delve into how these institutions can foster high-quality education that empowers individuals and contributes to overall human development.

Panel Discussion #3:

The Role of Technology in Community Services

Speakers:

- Dr. Shahir Alshehri
- Dr. Nashir Albin hassan
- Dr. Abdullah Alharbi
- Prof. Suliman Alsuhaibani

Moderator:

Dr. Dina Alabbad

Abstract

This panel discussion will delve into the transformative power of technology in enhancing community services. The discussion will also address potential challenges, such as the digital divide and ensuring equitable access to technology. The discussion will also address potential challenges, such as the digital divide and ensuring equitable access to technology.

Panel Discussion #4:

The Alignment with SCyber-Edu Framework

Speakers:

- Dr. Bandar Alkhayal
- Dr. Abdullah Almuhaideb
- Dr. Mohammed Alshara
- Dr. Talal Albalawi

Moderator:

Ibrahim Alnamlah

Abstract

Discussion on improving the quality of education in cybersecurity, and involving some Saudi universities in aligning cybersecurity programs with the Saudi Higher Education E-Learning Strategy in Cybersecurity (SCyber-Edu). 60 minutes panel discussion will be structured as follows:

- Introduction to the Saudi Framework for Higher Education in Cybersecurity (SCyber-Edu) and its objectives.
- Discussing the importance of having a national framework that contributes to equipping graduates with the knowledge and skills required by the cybersecurity job market.
- Alignment with the Cyber-Education framework and its impact on improving the quality of higher education programs in the Kingdom of Saudi Arabia.
- Lessons learned and sharing experiences from universities that have aligned their programs with the framework.
- Feasibility of implementing a corrective action plan for programs that have conditional alignment.

Competitions

Capture the Flag
Competition

Capture the Flag Competition

Capture the Flag competition is a type of competition typically held in the field of cybersecurity and is designed to test participants' skills and knowledge in various aspects of cybersecurity, such as cryptography, web exploitation, reverse engineering, digital investigation, etc.

In the competition, participants form teams, and they will be presented with a series of challenges that they must solve to obtain "flags." These flags are usually short text strings or unique symbols that serve as proof that the challenge has been solved. The flags are often hidden within systems, applications, or files, and participants must use their technical skills, problem-solving abilities, and creativity to discover and exploit vulnerabilities, analyze code, decrypt messages, or perform other tasks to retrieve them. When solving each challenge, the team receives certain points based on the difficulty of the challenge, and the team that obtains the highest number of points will be the winner of the competition. Overall, the competition serves as an educational platform for individuals to test their cybersecurity knowledge and enhance their problem-solving abilities in a competitive and collaborative environment.

Therefore, the College of Computer Science and Information Technology at Imam Abdul Rahman bin Faisal University, in cooperation with the Saudi Federation for Cybersecurity ،Programming, and Drones, intends to organize the competition in person. This competition is a side event organized by the college on the first day of the conference, on Wednesday May 8, 2024 from 1:00 pm to 8:00 pm.

The competition will be Jeopardy Style where each team will have a list of challenges in different categories such as reverse engineering, web security, digital forensics, network security and others. For each challenge solved, the team will receive a certain number of points depending on the difficulty of the challenge. The team with the highest points at the end of the day will be the winning team.

Skills development: The competition aims to enhance participants' knowledge and skills in various fields of cybersecurity. By solving challenges in cryptography, web exploitation, reverse engineering, forensics, and other fields, participants improve their technical capabilities and gain hands-on experience in real-world scenarios. It often requires creative thinking, problem solving, teamwork, and the ability to work under pressure.

Expand Knowledge: Contest challenges cover a wide range of cybersecurity topics, encouraging participants to learn new technologies, tools and methodologies. Participants learn about the latest technologies, vulnerabilities, and attack vectors, which helps them stay abreast of the latest trends and developments in the field.

Collaboration and Communication: The competition often involves group participation, promoting cooperation and teamwork among participants. This encourages knowledge sharing, brainstorming, and developing effective strategies.

Awareness and Education: The competition helps raise awareness about cybersecurity and the importance of protecting digital systems and data. By participating in it, individuals gain a better understanding of potential security threats, vulnerabilities, and countermeasures, promoting a culture of cybersecurity awareness and education.

Competition Conditions

The conditions related to team members are as follows:
- Each university is represented by two teams, with three to four members for each team.
- Registration is only for participants nominated by the participating university in the competition.
- All participants must be undergraduate students only.
- All participants are required to bring their own laptops.

The conditions related to the platform are as follows:
- Sharing flags between different teams is prohibited.
- Brute force attacks are not permitted on the challenge platform or challenge links.
- Any attack against the site or hosted servers will be noticed and the player will be banned from participating in the competition immediately.

The organizers have permission to disqualify teams for any unethical behavior or any attempts to sabotage the competition.

1. Nomination and Registration:

o The competition is open for students interested in participating by nomination from their universities.
o A final deadline will be set for receiving nominations, not exceeding two weeks before the competition date.
o The platform registration link will be sent to the approved participants.
o Team names must be in the following format: University Name + Team Number, for example: IAU_Team1.

2. Orientation Workshop:

o An Orientation workshop will be organized a week before the competition to guide students about the rules and objectives of the competition, the platform's operation, and explaining the regulations and possible challenges.

3. Attendance Registration:

o Attendance registration is open in the Support Deans Building (D3) before 12 p.m. on the day of the competition, and each team is assigned a location and a computer.

4. Competition Start:

o The competition begins at 1:00 pm on Wednesday, May 8, 2024, and takes place via the flagyard platform of the Saudi Federation for Cybersecurity and Drones.
o The competition will be conducted in person and it will take place in one period from 1:00 pm to 8:00 pm.

5. Challenges:

o Challenges are published on the platform, which include challenges in various fields.
o Teams must solve challenges collectively according to set rules.

6. Solution Submission:

    o The "challenge answer" flag is presented if it is found on the platform.

7. Evaluation:

    o Each team's points are calculated automatically from the platform when they provide a correct answer.

8. Points and ranking:

    o Points are awarded for each solved challenge based on difficulty and quality.
    o Team rankings are determined based on the number of points they have earned.

9. Prizes:

    o Winning teams are announced, and prizes are distributed to the first, second, and third-place teams.
    o Prizes include participation certificates and cash rewards.

Competition Challenges Level

The competition contains challenges of different levels and is proportional, for example: 2 easy challenges, 3 moderately difficult challenges, and a difficult challenge. These challenges are on several topics in the field of cybersecurity as follows:

- Cryptography
- Digital Forensics
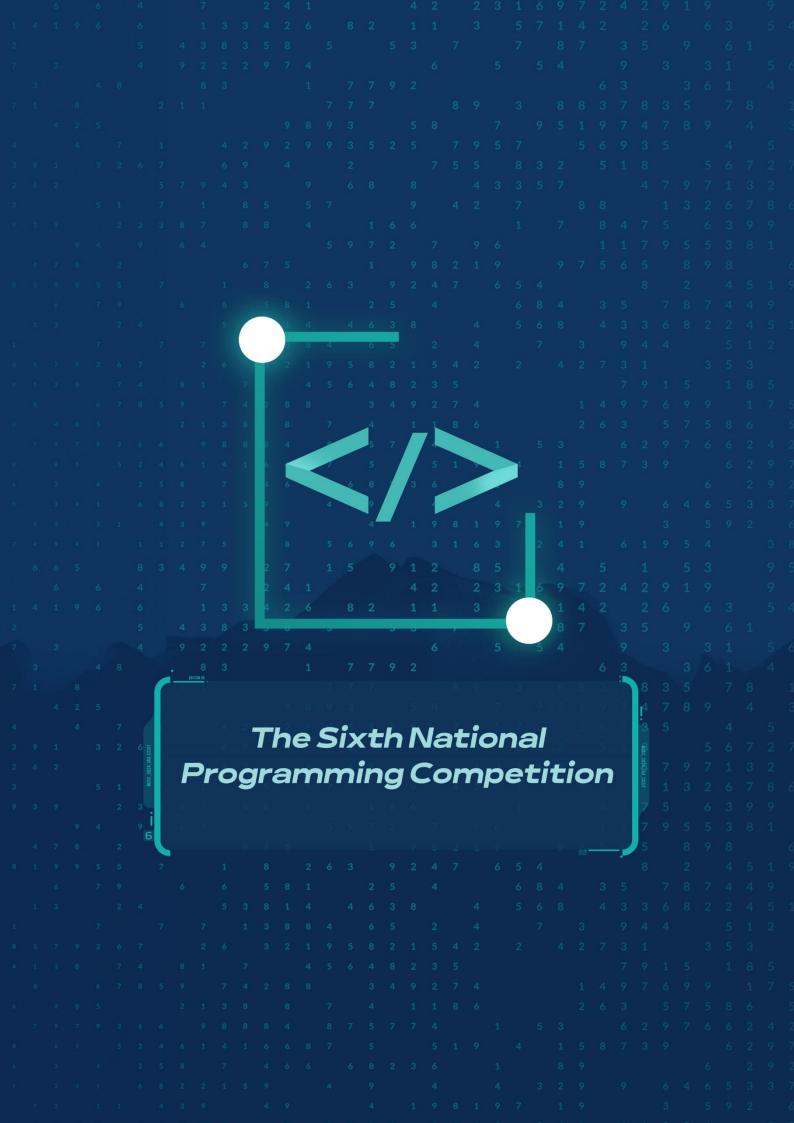- Web
- Networks
- Reverse engineering

Venue

In-person at the Support Deans Building (D3), Imam Abdulrahman Bin Faisal University, Dammam, Kingdom of Saudi Arabia

Time and Duration

From 1:00 pm to 8:00 pm on the first day of the conference, on Wednesday May 8, 2024, for seven hours.

The Sixth National
Programming Competition

The Sixth National Programming Competition

The College of Computer Science and Information Technology at Imam Abdulrahman Bin Faisal University, in collaboration with the Saudi Federation for Cybersecurity, Programming and Drones, is organizing the "Sixth National Programming Competition", in-person as a side event of the conference, on Thursday, May 9, 2024 from 8:00 am to 1:00 pm.

This competition is a great opportunity for university students in the Kingdom of Saudi Arabia to test and develop their programming skills. The competition offers a series of exciting programming challenges that require creative thinking and technical skills in various programming languages.

Students compete in teams, where they must solve challenges as quickly as possible to earn the highest scores. Challenges include designing and developing web and mobile applications, as well as solving various programming problems.

The competition is an ideal opportunity for Saudi university students to develop their programming skills and learn about the latest technologies and tools in the programming world. Also, it encourages collaboration and knowledge sharing among students, promoting continuous learning and development in this important field.

Objectives

Enhancing Programming Skills: Aiming to develop and enhance programming skills among Saudi university students through diverse and exciting programming challenges.

Encouraging Creativity and Innovation: Serving as a platform to encourage students to think creatively and innovatively in programming solutions and develop innovative applications.

Promoting Practical Learning: Providing students with an opportunity to apply theoretical concepts learned in classrooms to practical and realistic projects.

Fostering Collaboration and Teamwork: Encouraging collaboration among students in teams and solving problems collectively, enhancing teamwork and communication skills.

Raising Awareness of the Importance of Programming: Aiming to increase awareness of the importance of the programming field and its role in technology development and innovation in various fields.

Providing an Opportunity for Cultural Exchange: The competition is suitable for students to interact with their peers from various Saudi universities and exchange experiences and knowledge in the field of programming.

Encouraging Healthy Competition: Encouraging students to compete in a healthy manner based on skills, promoting a sense of belonging and pride in personal and collective achievements.

Providing an Opportunity to Learn about the Industry: Enabling students to learn about the latest technologies and trends in the field of programming and information technology, increasing their chances of integration into the job market.

Competition Conditions

The conditions related to team members are as follows:

- Two teams with three to four members each, represent each university.
- Registration is only for participants nominated by the participating university in the competition.
- All participants must be undergraduate students only.

1. Nomination and Registration:

o The competition is open for students interested in participating by nomination from their universities.

o A final deadline will be set for receiving nominations, not exceeding two weeks before the competition date.

o The platform registration link will be sent to the approved participants.

o Team names must be in the following format: University Name + Team Number, for example: IAU_Team1.

2. Orientation Workshop:

o An Orientation workshop will be organized a week before the competition to guide students about the rules and objectives of the competition, the platform's operation, and explaining the regulations and possible challenges.

3. Attendance Registration:

o Attendance registration is open in the Support Deans Building (D3) before 7:30 am on the day of the competition, and each team is assigned a location and a computer.

4. Competition Start:

o The competition starts at 8:00 am on Thursday, May 9, 2024, and takes place through a platform that provides challenges and necessary tools.

o The competition takes place from 8:00 am to 1:00 pm.

5. Challenges:

o Programming challenges are published on the platform, including various problems and tasks.

o Teams must solve the challenges collectively according to the specified rules.

6. Solution Submission:

o Solutions to the challenges are submitted through the dedicated platform, with the necessary documentation attached for codes and programs.

7. Evaluation:

o Submitted solutions are evaluated by a specialized judging committee in the field of programming.

o Predefined criteria are used to evaluate solutions, such as programming correctness, efficiency, and creativity.

8. Points and ranking:

o Points are awarded for each solved challenge based on difficulty and quality.

o Team rankings are determined based on the number of points they have earned.

9. Prizes:

o Winning teams are announced, and prizes are distributed to the first, second, and third-place teams.

o Prizes include participation certificates and cash rewards.

Competition Challenges Level

There are different levels of challenges designed to suit different levels of participants and motivate them to improve and develop their skills gradually. These levels include:

1. ### Medium Challenges:

   • Require advanced programming skills and a deep understanding of concepts and methods.

   • Include medium-difficulty programming problems that require creative thinking and deep analysis.

   • Enhance participants' logical thinking and solving complex programming problems.

2. ### Hard Challenges:

   • Include highly difficult programming problems that require advanced skills and deep experience in programming.

   • May include complex software engineering challenges and developing applications with significant complexities.

   • Enhance participants' technical and creative skills and contribute to building their confidence in the programming field.

Venue

In-person at the Support Deans Building (D3), Imam Abdulrahman Bin Faisal University, Dammam, Kingdom of Saudi Arabia

Time and Duration

From 8:00 am to 1:00 pm on the second day of the conference, on Thursday 09/05/2024, for five hours.

Entrepreneurial and Innovative Projects Competition

Entrepreneurial & Innovative Projects Competition

What?

Entrepreneurial and innovative projects in computer science play a crucial role in driving progress, fostering economic growth, and addressing societal challenges. In this competition, we aim to attract projects with entrepreneurial and innovative potential to showcase the technological innovation in the Kingdom. These projects drive technological innovation by introducing novel ideas, approaches, and products that have the potential to revolutionize industries and improve people's lives.

Submission:

- **Submit directly:** All male/female students at Saudi universities can apply.
- **Submission via university nomination:** Each Saudi university can formulate an internal committee to shortlist the projects and then nominate projects.

Objective:

- **Inspire Innovation:** Encourage entrepreneurial thinking and innovation among students.
- **Support Student Ventures:** Provide resources to turn ideas into impactful ventures.
- **Encourage Collaboration:** Foster teamwork and interdisciplinary problem-solving skills.
- **Facilitate Technology Exchange:** Bridge academia and industry for technology transfer.
- **Drive Digital Transformation:** Contribute to the Kingdom's 2030 vision through innovation and technology.

Topics of Interest:

Proposed projects should be broadly in the computing domain, including but not limited to the following:

- Cybersecurity
- Artificial Intelligence
- Computing and Software Engineering
- Information and Data Science

Target group

- University students at the bachelor's, postgraduate, and diploma levels.
- Recent university graduates

Judging Criteria:

- Innovation and Creativity
- Market Potential and Viability study.
- Social Impact and Sustainability
- Presentation Quality

Competition Timeline:

- **Competition Announcement and Submission Stage:** 10th - 24th March, 2024
- **Nomination Announcement:** 28th March, 2024
- **Entrepreneurial and Innovative Camp:** (Remotely), 31st March - 4th April, 2024

  Training workshops on design thinking, identifying customer needs, providing innovative solutions, idea building (including business model, market study, financial planning), and methods for obtaining financing.

- **Presentation of Projects for Evaluation:** (Remotely), 15th - 18th April, 2024
- **Poster Submission Deadline:** 25th April, 2024
- **Evaluation the posters:** 8th May, 2024
- **Winners Announcement:** (9th May, 2024) Presentation of prizes at the conference's closing ceremony.

NCCC 2024

المؤتمر الوطني السادس لكليات الحاسب
THE 6TH NATIONAL COMPUTING COLLEGES CONFERENCE

NCCC_2024_IAU_CCSIT

Organizing Committee

Organizing Committee

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Prof. Adulwahed Hamad Al-Mazru	Vice President for Administrative and Financial Affairs
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Participating Universities

2024

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