



المؤتمر العلمي الدولي الرابع للبيئة والتنمية المستدامة

Fourth International Scientific Conference on Environment and Sustainable Development (4th ISCESD)

الجمعة الموافق 2018/11/23

7:00-9:00 مساءً التسجيل واستلام مستلزمات المؤتمر للوفود المشاركة

اليوم الأول السبت 2018/11/24

الوقت	الفعالية	المكان
9:00-9:30	استقبال وتسجيل الضيوف	القاعة الرئيسية (قاعة رقم 1)
9:30-9:35	السلام الجمهوري (جمهورية مصر العربية وجمهورية العراق)	
9:35-9:40	تلاوة من القرآن الكريم	
9:40-9:45	كلمة ترحيبية لرئيس اللجنة التحضيرية للمؤتمر، الأستاذ الدكتور عبد الحميد محمد جواد	
9:45-9:55	كلمة الأستاذ الدكتور أمين دواي ثامر، رئيس الجامعة التكنولوجية	
9:55-10:00	كلمة الدكتور أشرف عبد العزيز، الأمين العام للاتحاد العربي للتنمية المستدامة والبيئة	
10:00-10:30	كلمات الوفود المشاركة من جمهورية مصر العربية	
الجلسة الافتتاحية		
رئيس الجلسة: أ.د. شاكر أحمد صالح مقرر الجلسة: أ.د. فكريت مجيد حسن		
10:30-11:30	Development of Iraq's Environment, Challenges and Solutions: Marshes Restoration Example	
الأستاذ الدكتور بهرام خضر مولود الأستاذ الدكتور نجاح عبود حسين		
ورشة العمل: الإدارة البيئية المتكاملة للموارد المائية في العراق إدارة الورشة: الأستاذ الدكتور رياض حسن الانباري رئيس لجنة المؤسسات الساندة والداعمة للمؤتمر		
11:30-12:30	الأستاذ الدكتور حسين العطفي-الأمين العام للمجلس العربي للمياه ووزير الموارد المائية والري الأسبق في جمهورية مصر العربية الأستاذ الدكتور علي عبد الزهرة اللامي هيئة المستشارين مكتب دولة رئيس الوزراء في جمهورية العراق	
12:30-1:00	توزيع الشهادات التقديرية	
1:00-3:00	وجبة الغداء	

الجلسات العلمية		
قاعة رقم 1	الجلسة الأولى 2018/11/24	
	رئيس الجلسة: الأستاذ الدكتور طارق عبد الله الجمال مقرر الجلسة: الأستاذ الدكتور أحمد نجم عبد	
ESD 14: Criteria For Sustainable Planting Design in Landscape Architecture Projects Under Arid Conditions		3:10-3:00
Abdullah M. Farid Ghaza King Abdulaziz University, Faculty of Environmental Design, Landscape Architecture Department, Jeddah, Saudi Arabia		
ESD 160: Influences of fly ash and nano silica as a sustainable materials on the permeability properties of self – compacting concrete		3:20-3:10
Asraa Al-Goody ¹ , Esra M. Güneyisi ² , Süleyman İpeka ² ¹ Department of Civil Engineering University of Technology, Baghdad, Iraq ² Department of Civil Engineering, Gaziantep University, 27310 Gaziantep, Turkey		
ESD 165: Synthesis of Chitason-Silica Nanocomposite for Removal of Methyle Orange: Composite Characterization and Adsorption Performance		3:30-3:20
Mohammed I. Mohammed ¹ , Mustaf K. Ismaiel ² , Mohmet Gonen ¹ ¹ Chemical Engineering Department, Faculty of Engineering, Suleyman Demirel University, Isparta, Turkey ² Institute of Technology, Mechanical Techniques, Middle Technical University, Baghdad, Iraq		
ESD 34: Restore the Local Heritage and its Role in Sustainable Spatial Development the Great Market in Al-Najaf –Case Study		3:40-3:30
Wahda Sh. Al-Hinkawi, Baneen A. Al-Saadawi Department of Architecture, University of Technology, Baghdad, Iraq		
ESD 40: Hydrogeologic Sustainability and Mitigation of Shallow Groundwater Aquifers against High Saline Levels and Chemical pollutants		3:50-3:40
Najah M.L. Al Maimuri, Arkan R Ali, Abdulhadi M. Al-Sa'adi, Mohammed K. Abed Al Furat Al Awsat, Technical University, Kufa, Iraq		
ESD 43: Simulation of Mosul Dam Reservoir Operation for Irrigation and Hydropower Generation		4:00-3:50
Taymoor A. Awchi and Baraa Jebbo		
ESD A: Towards Acquiring the Environmental Skills and Trends Required to Achieve Environmental Architecture		4:10-4:00
Haider M.H. AL-Zerkani College of Engineering, University of Kut		
ESD 2: Shortage Sanitation Services in the Outskirts of Baghdad and Its Environmental Impacts		4:20-4:10
Alaa R. Al-Obaidi ^{1*} , Sara D. Zangana ² , Saja H. Salim ³ ¹ General Directorate of Sewerage, Ministry of Construction and Housing and Public Municipalities, Baghdad, Iraq ² Technical Directorate, Ministry of Health and Environment, Baghdad, Iraq. ³ Department of Works and Maintenance, Ministry of Construction and Housing and Public Municipalities, Baghdad, Iraq		
استراحة		6:00-4:200
جولة حرة		10:00-6:00

قاعة رقم 2	<p>الجلسة الثانية 2018/11/24</p> <p>رئيس الجلسة: الأستاذ الدكتور فكريت مجيد حسن مقرر الجلسة: الأستاذ الدكتور قاسم حميد جلعوط</p>
<p>ESD 12: Distribution of Total Mercury in the Water and Sediments of the Shatt Al-Arab Area</p> <p>Abdaloussein A. Khwedem Marine Science Centre, Basrah University</p>	3:10-3:00
<p>ESD 70: Trace Elements Geochemistry in the Iraqi Marine Sediments</p> <p>Mohanad H. Al-Jaberi Geology Department, College of Science, Basrah University, Basra, Iraq</p>	3:20-3:10
<p>ESD 15: Improve the Self-Purification of the Shatt Al-Arab Rivers System using Simulation Models</p> <p>Ali Dh. Abed AL-Mustansiriyah University, Faculty of Engineering, Baghdad, Iraq</p>	3:30-3:20
<p>ESD 23: Estimation of Water Balance for Erbil City in the Central Basin of Erbil Plain (North of Iraq)</p> <p>Qusai Y. Al-Kubaisi¹, Tariq A. Hussain², Muayad M Ismail², Faaeza A. Abd-Ulkareem² ¹Department of Geology, College of Science, Baghdad University, Baghdad, Iraq ²Civil Engineering Department, University of Technology, Baghdad, Iraq</p>	3:40-3:30
<p>ESD 31: Abundance, Diversity and Distribution of Zooplankton in the Tigris River Northern of Basrah, Iraq</p> <p>Shaker G. Ajeel¹, Mohammad F. Abbas, Dawood S. Abdullah Department of Marine Biology, Marine Science Centre, University of Basrah, Iraq</p>	3:50-3:40
<p>ESD 35: Geochemical Evolution of Heavy Metals (Cd, Cr, Fe, Mn) in Sediment of Shatt Al-Basrah, Iraq</p> <p>Zahraa Z. Al-Janabi¹, Shahed R. Zaki², Jinnan Sh. Al Hassany², Abdul Hameed M.J. Al-Obaidy¹, Eman. S. Awad¹, Afrah A. Maktoof³ ¹Environmental Research Center, University of Technology, Baghdad, Iraq ²Department of biology, College of Science for Women, Baghdad University, Baghdad, Iraq ³Biology Department, Science Collage, University of Thi-Qar, Iraq</p>	4:00-3:50
<p>ESD 33: Heavy Metals Content in Several Imported Rice Crops (Oryza sativa) from the Local Markets</p> <p>Basim H. Faraj, Sedik A.K. Al-Hiyaly, Athmar A.M. Al-Mashhady Environment Research Center, University of Technology, Baghdad, Iraq</p>	4:10-4:00
<p>ESD 9: Distribution of some Heavy Metals in Water and Sediment of Main out Fall Drain in Al-Nassiriya City by using Environmental Indices</p> <p>Afrah A. Maktoof¹, Zahraa Z. AL-Janabi², Sana T. Jaweed³, Basim Y. Al-Kafaji¹, Majida G. Maktoof¹ ¹Biology Department, Science Collage, Thi-Qar University, Iraq ²Environmental Research Center, University of Technology, Baghdad, Iraq ³Biology Department, Faculty of Education for pure sciences, Thi-Qar University, Iraq</p>	4:20-4:10
	استراحة 6:00-4:20
	جولة حرة 10:00-6:00

قاعة رقم 3	الجلسة الثالثة 2018/11/24 رئيس الجلسة: الأستاذ الدكتور دعد محمد فؤاد مقرر الجلسة: الأستاذ الدكتور خالد محمد حسين
ESD 5: Biofilm Inhibitory Potential of <i>Westielloopsis prolifica</i> Extract Against some Pathogenic Microorganisms Neihaya Z. Heikmat ¹ , Ghaidaa Husain, Shurooq Latif, Nada Zaki ¹ Biology Dept., College of Science- Mustansiriyyah University	3:10-3:00
ESD 13: DNA Fingerprinting of the Carangid Fish Species from the Iraqi Marine Waters by using RAPD-PCR Technique Abbas J. Al-Faisal, Abdul-Razak M. Mohamed and Talib A. Jaayid	3:20-3:10
ESD 20: Oil Removal from Produced Water of North Rumaila Oilfield by Combination of Coagulation-Flocculation and Microfiltration Technique Thamer J. Mohammed ¹ , Eman Sh. Awad ² , Thabit A. Ahmed ³ ¹ Chemical Engineering Department, University of Technology, Iraq ² Environmental Research Center, University of Technology, Iraq ³ Petroleum Research and Development Center, Ministry of Oil, Iraq	3:30-3:20
ESD 21: Nitric Oxide Reduction by Using the Micro forms of TiO₂ with Cementitious Materials Ayat Hussein, Riyadh H. Al-Anbari and Maan S. Hassan Civil Engineering Dept., University of Technology, Baghdad, Iraq	3:40-3:30
ESD 42: Treatment of Crude Oil Spills in Water Resources by Using Biological Method Ibtihaj A. Abdulrazzak ¹ , Mohammed H. Hafiz ¹ , Ali N Ibrahim ² ¹ Collage of Engineering, Aliraqia University, Baghdad, Iraq ² Consulting Bureau, Aliraqia University, Baghdad, Iraq	3:50-3:40
ESD 45: Evaluation of Water Treatment Residue as a Sorption Medium and Application to Control Phosphate Level in Water Mahmood M. Barbooti, Shaymaa S. Hasan, Mustafa Jassim Department of Applied Science, University of Technology, Baghdad, Iraq	4:00-3:50
ESD 67: Evaluation Biosorption and Recovery of Zn, Cr and Ni Ions from Industrial Wastewater Using Beads of Banana Peel Powder Constrained by Calcium Alginate Sufyan M. Shartoo ¹ , Sedik A K. Al-Hiyaly ² ¹ Department of Biology, College of Science, Al-Anbar University, Al-Anbar, Iraq ² Environmental Research Center, University of Technology, Baghdad, Iraq	4:10-4:00
ESD 69: Removal of Lead (II) Ion from Aqueous Solution by Adsorption on Rejuvenated Spent Nimo/Al₂O₃ Hydrodesulphurization Catalyst as a Sustainable Method Karim H. Hassan, Amir F. Dawood, Aseel J. Ahmed Department of Chemistry, College of Science, University of Diyala, Diyala, Iraq	4:20-4:10
استراحة	6:00-4:20
جولة حرة	10:00-6:00

قاعة رقم 4	<p>الجلسة الرابعة 2018/11/24</p> <p>رئيس الجلسة: الأستاذ الدكتور محمد جاسم كاظم</p> <p>مقرر الجلسة: الأستاذ المساعد الدكتور امزاحم عبد الكريم علوان</p>
<p>ESD 24: Thermodynamic and Kinetic Investigation of Desalination by Refrigerant Clathrate Hydrate Formation</p> <p>Shurooq T. ALHemeri, Riyadh S. ALMukhtar, Lina W. Mahmood Department of Chemical Engineering, University of Technology, Baghdad, Iraq</p>	3:10-3:00
<p>ESD 26: Mechanical Properties of Cement Mortar Made With Black Tea Waste Ash as a Partial Replacement of Cement</p> <p>Mohammed S. Nasr, Zaid A. Hasan, Mohammed K. Abed Babylon Technical Institute, Al-Furat Al-Awsat Technical University, Babylon, Iraq</p>	3:20-3:10
<p>ESD 59: Response of Bread Wheat to Absciscic Acid under Water Stress</p> <p>Shetha A. Ahmad¹, E. K. Hashim¹, Ahmed S.A. Al-Taie² ¹Agric. Research Office, Ministry of Agriculture, Baghdad, Iraq ²Environmental Research Center, University of Technology, Baghdad, Iraq</p>	3:30-3:20
<p>ESD 60: Behavior of Recycled Aggregate Fibrous Reinforced Beams Under Flexural and Shear Loading</p> <p>Eyad K. Sayhood, Ali Sadiq, Farah L. Raoof Civil Engineering Department, University of Technology, Baghdad, Iraq</p>	3:40-3:30
<p>ESD 66: Environmental Impact Assessment of Halfaya Oilfield Project</p> <p>Amin D. Thamir¹, Souzan H. lafta², Faras Q. Mohammed³, Mahdi M. Hanon¹. ¹Department of Production Engineering and Metallurgy, University of Technology, Baghdad ²Iraqi National Oil Company (NOC), Maysan Oil Company, Maysan, Iraq ³Nanotechnology and Advanced Material Research Center, University of Technology, Baghdad, Iraq</p>	3:50-3:40
<p>ESD 127: Diclofenac Removal from Wastewater by Iraqi Pillared Clay</p> <p>Faris H. AL Ani, Ghayda, Y. AL-Kindi, Noor, Kh. Al-Bidri Civil Engineering Dept., , University of Technology, Baghdad, Iraq</p>	4:00-3:50
<p>ESD 120: Sealing of Thermal Plasma Spray Coatings by Electrophorese Deposition</p> <p>Mohammed Jasim, Sami Ibrahim & Hussein Ali Hussein Production Engineering and Metallurgy Dept., University of Technology, Baghdad, Iraq</p>	4:10-4:00
<p>ESD 170: Nature Reserves and Their Role in Mitigating the Impact of Climate Change Natural Solutions</p> <p>Ameera K. Lafta Sedik A.K. Al-Hiyaly Environmental Research Center, University of Technology</p>	4:20-4:10
استراحة	6:00-4:20
جولة حرة	10:00-6:00

اليوم الثاني الاحد 2018/11/25

الجلسات العلمية الصباحية		
الجلسة الصباحية الأولى 2018/11/25		
قاعة رقم 1	رئيس الجلسة: الأستاذ الدكتورة شهلاء إسماعيل إبراهيم مقرر الجلسة: الأستاذ المساعد الدكتور صالح عبد الرضا الصالح	
ESD 41: Predictive Modeling of Multilayer Graphene Growth by Chemical Vapour Deposition on Co-Ni/Al₂O₃ Substrate using Artificial Neural Network	May A. Muslim ¹ , Zainab Y. Mohamed ¹ , Abdel Rahman Abdel Ghany ¹ , Bamidele Victor Ayodele ¹ Department of Chemical Engineering, University of Technology, Baghdad, Iraq, ² Faculty of Chemical and Natural Resources Engineering, Universiti Malaysia Pahang, Lebuhraya Tun Razak, 26300 Gambang-Kuantan, Malaysia	9:15-9:00
ESD 44: Dynamic Study of Acid Gas Absorption Using Promoted Absorbent in Bubble Column Reactor	Safa A. Al-Naimi, Farah T. Jasim, Ahmed N. Kokaz Department of Chemical Engineering, University of Technology Baghdad, Baghdad, Iraq	9:30-9:15
ESD 50: Textile Dye Removal by Activated Date Seeds	Seroor A. Kh. Ali ¹ , Huda T. Hamad ² ¹ Environmental Engineering Dpt., College of Engineering, Al Mustansiriyah University, ² Water Resource Engineering Dpt., College of Engineering, Al Mustansiriyah University	9:45-9:30
ESD 123: Removal of Phenol and Contaminants from Wastewater of a Petroleum Refinery by Ion Exchange	Najwa S. Majeed, Samira N. Abdullah Chemical Engineering Dept., College of Engineering, University of Baghdad, Baghdad, Iraq	10:00-9:45
ESD 148: Effects of Bio-Fertilizers Types on Yield, Yield Components of Three Varieties of Oat (Avena sativa L.)	L.M. Al-Freeh, K.H. Huthily, S.A. Alabdulla	10:15-10:00
ESD 151: Application of Wheat Husk in Color Removal of Textile Wastewater	Mohamed L. Mohamed ¹ , Annam A. Sabri ² , Eman J. Taha ² ¹ Faculty of Engineering, Chemical Engineering Department, Suleyman Demirel University, Isparta, Turkey ² Chemical Engineering Department, University of Technology, Baghdad, Iraq	10:30-10:15
ESD 154: Modification of Zeolite by Magnetic Nanoparticles for Organic Dye Removal	Zaianb Majid, Adnan A. AbdulRazak, Walla Abdul Hadi ¹ Department of Chemical Engineering, University of Technology, Baghdad, Iraq	10:45-10:30
ESD 155: Study Air Pollution Effects in Some Plant Leaves Morphological and Anatomical Characteristics in Baghdad City, Iraq	Abdul Hameed. M.J. Al-Obaidy ¹ , Israa M. Jasim ² , Abdul-Rahman A. Al-kubaisi ² ¹ Environmental Research Center, University of Technology, Baghdad, Iraq. ² Department of Biology, Collage of Science for Women, University of Baghdad, Baghdad, Iraq	11:00-10:45
استراحة		11:30-11:00

قاعة رقم 2	<p>الجلسة الصباحية الثانية 2018/11/25</p> <p>رئيس الجلسة: الأستاذ الدكتور نوفل عبد الأمير حسين مقرر الجلسة: الأستاذ المساعد الدكتور فلاح حسن رحيل</p>	
	<p>ESD 91: Adsorption Study of Nitrate Anions by Different Materials using Fixed Bed Column</p> <p>Anaam A. Sabri, Noor S. Abbood Department of Chemical Engineering, University of Technology, Baghdad, Iraq</p>	9:15-9:00
	<p>ESD 104: Synthesis and Study of Silver Nanoparticles Using Iraqi and Indian <i>Lawsonia Inermis</i> Plant and their Catalytic Performance in Degradation of Organic Pollutant</p> <p>Bassam A.R. Alabdul Aziz¹, Ahmed M. Sadda², Thuraya M. Ibrahim², Zainab T.Y. Al-Abdullah² ¹Marine Chemistry Department, Marine Science Center, Basrah University, Basrah, Iraq ²Chemistry Department, College of Education for Pure Sciences, Basrah University, Basrah</p>	9:30-9:15
	<p>ESD 109: Study the Characteristics Performance of Anaerobic Filter for Dairy Wastewater Treatment</p> <p>Tagreed Lutfee</p>	9:45-9:30
	<p>ESD 124: Evaluation of Bacterial Quality for Imported and Locally Canned Food Products in Basrah City Through 2015</p> <p>Ihsan E. Alsaimary Department of Microbiology, College of Medicine, University of Basrah, Basra, Iraq</p>	10:00-9:45
	<p>ESD 130: A Study on the Liquid Medical Waste and Sewage</p> <p>Khalidah S. Al-Niaeem, Fatima A.H. Sultan, Amjed K. Resen College of Agriculture, University of Basrah, Basrah, Iraq</p>	10:15-10:00
	<p>ESD 102: Comparison the Trends of Mean Temperature and Rainfall Rate in the City of Samawah (Iraq) With Global Climate Change</p> <p>Ather Hussin</p>	10:30-10:15
	<p>ESD 147 Title: Crustaceans Communities Can Be Used as an Early Warning System for Monitoring Ecosystem Degradation</p> <p>Khalidah S. Al-Niaeem¹, Raed S. Atti², Amjed K. Resen¹ ¹College of Agriculture, University of Basrah, Basrah, Iraq ²College of Agriculture, University of Diyala, Diyala, Iraq</p>	10:45-10:30
	<p>ESD 131: Effect of Irrigation Water Quality on Some Vegetative and Rooting Characters of <i>Raphanus Sativus</i> L., and Its Content of Mineral and Heavy Elements</p> <p>Ali H.M. Attaha, Salwa J. Fakher and Najila M. Abd Al Hleam</p>	11:00-10:45
	استراحة	
قاعة رقم 3	<p>الجلسة الصباحية الثالثة 2018/11/25</p> <p>رئيس الجلسة: الأستاذ المساعد الدكتورة هالة بهجت عبد الوهاب مقرر الجلسة: الأستاذ المساعد الدكتور سولاف عبد خضير</p>	
	<p>ESD 16: Framework for Solid Waste Management in Steel Fabrication</p> <p>Luma A.H. Al-Kindi, Wadood K. Kh. Alghabban Production Engineering and Metallurgy Dept., University of Technology, Baghdad, Iraq</p>	9:15-9:00

ESD 61: Electrode Wear Evaluation in E.D.M Process		9:30-9:15
Ali A. Khleif, Osama S. Sabbar University of Technology, Baghdad, Iraq		
ESD 112: Effect of Solution Stability on Biomimetic Apatite of Electrophoretic Deposition of HA/YPSZ Coatings		9:45-9:30
Mohammed J. Kadhim ¹ , Nawal E. Abdullatef ² , Makarim H. Abdulkareem ² ¹ Nanotechnology and Advanced Materials Research Center, University of Technology ² Department of production Engineering and Metallurgy, University of Technology, Baghdad		
ESD 113: Effect of Process Variables on Performance of Electrophoretic Deposition HA/YPSZ on 316L Stainless Steel		10:00-9:45
Mohammed J. Kadhim ¹ , Nawal E. Abdullatef ² , Makarim H. Abdulkareem ² ¹ Nanotechnology and Advanced Materials Research Center, University of Technology ² Department of production Engineering and metallurgy, University of Technology		
ESD 114: Improvement Hot Corrosion Resistance and Microstructure of composite Plasma Sprayed Thermal Barrier Coatings by Laser Sealing		10:15-10:00
Mohammed J. Kadhim, Sami Abualnoun Ajeel, Ali Mezher Resen Department of Production Engineering and Metallurgy, University of Technology, Baghdad		
ESD 115: Microstructure and Mechanical Properties of Laser Surface Melting Hot Forging Die Tool Steel Type ⁵⁶NiCrMoV₇		10:30-10:15
Mohammed J. Kadhim, Amin D. Thamir, Ibrahim A. Ahmed Department of Production Engineering and Metallurgy, University of Technology, Baghdad		
ESD 126: Significance of Skin Test Reactivity to Aeroallergens in Patients with Chest and Skin Allergies in Basrah through 2014 and 2015		10:45-10:30
Falih H. Mezban ¹ , Ihsan E. Alsaimary ² ¹ Center of Allergy and Asthma Diseases, Basrah ² Department of Microbiology, College of Medicine, University of Basrah, Basrah, Iraq		
استراحة		11:30-11:00
الجلسة الصباحية الرابعة 2018/11/25		
قاعة رقم 4	رئيس الجلسة: الأستاذ الدكتور نبيل السمالوطي مقرر الجلسة: الأستاذ المساعد الدكتور صديق أحمد قاسم	
ESD 8: Environmental Impact Assessment of Abu-Ghraib Dairy Factory		9:15-9:00
Ali Ezz Ulddin, Zainab B. Mohammed, Abdul Razzak T. Ziboon, Hiba Abdul Razzak Civil Engineering Department, University of Technology, Baghdad, Iraq		
ESD 132: Phytoremediation of Heavy Metals (Cd, Cu, Fe, and Pb) Contaminated Shatt Al-Arab River Water by Using Aquatic Plants		9:30-9:15
Taha Y. Al-Edani ¹ , Hayfaa J. Al-Tameemi ² , Zainab F.Jasim ¹ ¹ Department of Plant Protection, College of Agriculture, University of Basrah, Iraq ² Department of Soil Science and Water Resources, College of Agriculture, University of Basrah, Iraq		
ESD 110: Environmental Impact Assessment for Modern Brick Factory in Baghdad, Iraq		9:45-9:30
Saadi M.D. Al-Nuzal ¹ , Salih A. Al-Bakri ¹ , and Sarah D.A. Zankana ² . ¹ Environmental Research Center, University of Technology, Baghdad, Iraq. ² Technical Department, Ministry of Health and Environment, Baghdad, Iraq.		
ESD 137: Study the Catalytic Oxidation in Both Basket Stirred Tank and a Packed Bed Reactor		10:00-9:45

Ghayda, Y. AL Kindi and Faris, H. AL Ani Civil Engineering Dept., University of Technology, Baghdad, Iraq		
ESD 145: Effect of Ash of Some Plant Waste on Improving Mean Weight Diameter for Two Soil and Growth of Wheat Plant Triticum Aestivumsl. Irrigated with Contaminated Water		10:15-10:00
Dr. Nihad Sh. Al-Wali, Najla J. Al-Amiri, Nbras Fared Salman		
ESD 156: Title: Method and a Bench Scale Apparatus for the Removal of Lead from Water by Sorption on Clay Mineral		10:30-10:15
Najah M. Al-Shuwaiki ¹ , Mahmood M. Barbooti ² ¹ Dijlah University College, Baghdad, Iraq ² Applied Chemistry Department, University of Technology, P.O. Box 35045, Baghdad, Iraq		
ESD 99: Proximate Composition of Fresh Water Prawn Marobrachium nipponenses and Crab Potamon sp. from al-Hawizah Marshes, South of Iraq		10:45-10:30
Khaled Kh. Al-Khafaji ¹ , Amal S. Al-Sherra ¹ , Rajaa K. Hanaf ² ¹ Department of Marine Biology, Marine Science Center, University of Basrah, Basra, Iraq ² Department of Natural, Collage of Marine Science, University of Basrah, Basra, Iraq		
استراحة		11:30-11:00
الجلسة الصباحية الخامسة 2018/11/25		
قاعة رقم 1	رئيس الجلسة: الأستاذ الدكتور صلاح يوسف مقرر الجلسة: الأستاذ المساعد الدكتور سعدي محمد ظاهر	
ESD 89: Apply Green Economy to Waste Management		11:45-11:30
Hayder Al-guboori ¹ , Salman H. Omran ² , Huda Jaber ³ ¹ Department of Metallurgical Engineering, College of Materials Engineering, University of Babylon, Iraq ² Ministry of Higher Education and Scientific Research, Iraq ³ College of Pharmacy, Mustansiriyah University, Baghdad, Iraq		
ESD 90: Recycling of Sewage Sludge Ash in Polymer Structures		12:00-11:45
Mohamad Alsaadi, Aseel B Al-Zubaidi, Mukhallad haider ,Hasanain Hashim Materials Engineering Department, University of Technology, Baghdad, Iraq		
ESD 101: Recycling and Improving the Solid Waste of Aluminum Alloys		12:15-12:00
Mustafa Ahmed Rajab ¹ , Ziad Tariq Khudair ² , Faten Rashid Al Khalidi ³ ¹ Mechanical Dept., Technical Institute of Baqubah, Middle Technical University, Iraq ² Faculty of Science, University of Diyala, Diyala, Iraq ³ M.Sc. of Civil Engineering, Ministry of Education		
ESD116: Optimization Process for Laser Processing of Forged Tool Steel		12:30-12:15
Amin D. Thamer, Mohammed J. Kadhim, Ibrahim A. Ahmed Department of Production Engineering and Metallurgy, University of Technology, Baghdad		
ESD 117: Microstructure and Hardness of Forged Steel Surface Treated With CO₂ High Power Laser		12:45-12:30
Amin D. Thamer, Mohammed J. Kadhim, Ibrahim A. Ahmed Department of Production Engineering and Metallurgy, University of Technology, Baghdad		
ESD 135: Impact of a Bright Nickel Interlayer on the Performance of Solar Absorber Nanocoatings Deposited by Electrodeposited on Copper Substrate		1:00-12:45
Mohammed J. Kadhim ¹ , Khalid A. Sukkar ² , Ahmed S. Abbas ³ ¹ Nanotechnology and Advanced Materials Research Centre, University of Technology ² Department of Chemical Engineering, University of Technology, Baghdad, Iraq ³ Department of Production Engineering and Metallurgy, University of Technology, Baghdad		

ESD 119: Effect of Si on Recyclability on Al-Si Alloys		1:15-1:00
Mohammed J. Kadhim, Mahdi M. Hanoun, Nawar S. Bahgat Department of Production Engineering and Metallurgy, University of Technology		
ESD 121: Sustainability Improvement of Plasma Sprayed Thermal Barriers Coatings by Continuous Wave Lasers		1:30-1:15
Mohammed J. Kadhim ¹ , Mohammed H. Hafiz ² , Maryam A. Alibash ³ ¹ Nanotechnology and Advanced Materials Research Center, University of Technology ² College of Engineering, Al-Iraqi University, Baghdad, Iraq ³ Department of Production Engineering and Metallurgy, University of Technology		
وجبة الغداء		3:00-1:30
قاعة رقم 2	الجلسة الصباحية السادسة 2018/11/25	
رئيس الجلسة: الأستاذ الدكتور علاء وادي حسين مقرر الجلسة: الأستاذ المساعد الدكتورة بشرى محمد جابر		
ESD 54: Naturally Occurring Radon Assessment in Al-Rustumai Wastewater Treatment Plant		11:45-11:30
Sahar A. Amin ¹ , Rana R. Alani ¹ ¹ Environmental Research Center, University of Technology, Baghdad, Iraq		
ESD 98: Alpha Radioactivity Level Along Tigris River Sediments in Baghdad Governorate Area by Using CR-39 SSNTD`s		12:00-11:45
Saadi M. D. Al-Nuzal, Abdul-Hameed M.J. Al-Obaidy, Sahar A. Amin Environmental Research Centre, University of Technology, Baghdad, Iraq		
ESD 168: Effect of Gamma Radiation on <i>Callosobruchus maculatus</i> (F.) (Coleoptera: Bruchidae) and seed germination		12:15-12:00
Sahar Abd, Soolaf A. Kathier and Emad Ahmed Mahmmod Department of Biology, College of Science for Women, University of Baghdad		
ESD 167: A study on the Effectiveness of Nano-5-aminolevulinic Acid in Breast Cancer-Targeted Therapy		12:30-12:15
Ahmed Abdulmunem Jasim ¹ , Gihan Hosny ² , and Samir Ali Abd El-kaream ³ ¹ Biotechnology Research Center, Al-Nahrain University ² Institute of Graduate Studies & Research, Alexandria University ³ Medical Research Institute, Alexandria University		
ESD 107: New Trend in Neutron Activation Analysis of Boron Mounting on Gelatin Film and NSST Detector CR-39 Used to Environmental and Industrial Samples		12:45-12:30
Saadi M.D. Al-Nuzal ¹ , Jassim M. Najim ² , and Khalid R. Flaih ² . ¹ Environmental Research Centre, University of Technology, Baghdad, Iraq. ² Physics Department, College of Science, Al-Anbar University, Anbar, Iraq.		
ESD 118: Microstructural Characterizations and Failure Mechanism of Recycling of New Al-Si swarf		1:00-12:45
Mohammed J. Kadhim, Mahdi M. Hanoun, Nawar S. Bahgat Department of Production Engineering and Metallurgy, University of Technology		
ESD 128: Study of Microwave Heating Process for Demulsification of Crude Oil Emulsions		1:15-1:00
^a Firdos M. Abdulla ¹ , Mohammed R. Ali ^{2*} , Jenan A. Al-Najar ¹ and Nedhal A. Shaker ¹ ¹ Chemical Engineering Department, University of Technology, Baghdad, Iraq ² Faculty of Chemical and Natural Resources Engineering, University Malaysia Pahang-UMP		

ESD 80: Identify Drivers and Barriers for Adopting Green Buildings in Iraq and Discussion for the Top Ranks		1:30-1:15
Mustafa J. Alazawi, Asli P. Gurgun Department of Civil Engineering, University of Yildiz Technical University		
وجبة الغداء		3:00-1:30
قاعة رقم 3	الجلسة الصباحية السابعة 2018/11/25	
رئيس الجلسة: الأستاذ الدكتور عقيل شاكرا العادلي مقرر الجلسة: الأستاذ المساعد الدكتورة جنان شاوي زامل		
ESD 159: Assessment of Health Care Waste Management (HCWM) In Iraq; Effects and Control		11:45-11:30
Imadaddin A.H. Al-Nakkash, B.H. Faraj, Sedik A.K. Al-Hiyaly		
ESD 46: Selecting the Potential Water Harvesting Sites Using Fuzzy GIS-Based Spatial Multi-Criteria Evaluation in Salah Al-Din Governorate, Iraq		12:00-11:45
Imzahim A. Alwan ¹ , Hussein H. Karim ¹ , Nadia A. Aziz ² ¹ Civil Engineering Department, University of Technology, Baghdad, Iraq ² Ministry of Science and Technology, Directorate of Space and Communication, Baghdad, Iraq		
ESD 47: Sensitivity Analysis of Groundwater Hydrdraulic Parameters in Al-Mansouriya Zone		12:15-12:00
Qassem H. Jalut ¹ , Nadia L. Abbas ¹ , Abdulrahman Th. Mohammad ² ¹ Department of Civil Engineering, College of Engineering, University of Diyala, Iraq ² Baqubah Technical Institute, Middle Technical University, Baghdad, Iraq		
ESD 140: PMMA-TiO₂ Nanocomposite Coating on Copper Substrate for Corrosion Protection		12:30-12:15
Dina Y. Mahdi ¹ , Ali A. Abdulhadi ¹ , Ali H. Ataiwi ¹ ¹ Materials Engineering Department, University of Kufa, Najaf, Iraq		
ESD 72: A GIS-Based SINTACS Model for Assessing Intrinsic Groundwater Vulnerability of the Alton Kopri Basin, Kirkuk Governorate Northeast of Iraq		12:45-12:30
Wasan S. Al-Qurnawi ¹ , Alaa M. A. Al-Abadi ¹ , Inass A.R. Al-Malla ¹ , Adel B. Al-Badran ² Geology Department, College of science, University of Basrah, Basrah, Iraq ² Summerway, Exeter, EX4 8DA, UK		
ESD 83: Modflow Application System to Groundwater Flow Simulation in the Dibdibba Unconfined Aquifer at “Karbala–Najaf” Plateau, Central of Iraq		1:00-12:45
Maitham A. Al-Ghanimy ¹ , Qusai Y. Al-Kubaisi ² , Alaa M. Al-Abadi ³ ¹ General Commission of Groundwater, Ministry of Water Resources, Iraq ² Department of Geology, College of Sciences, University of Bagdad, Bagdad, Iraq ³ Department of Geology, College of Sciences, University of Basra, Basra, Iraq		
ESD 53: Removal of Nitrate from Contaminated Groundwater Using Solar Membrane Distillation		1:15-1:00
Alaa H. Al-Fatlawi ¹ , Mohsen Karrabi ² , Ghassan abukhanafer ³ , Ahmed AL Salman ¹ ¹ College of Engineering, Babylon University, Iraq ² College of Engineering, Ferdowsi University of Mashhad, Iran ³ College of Engineering, University of Technology, Iraq		
ESD 169: Heavy Metals Accumulation in Two Types of Tree Leaves from Baghdad Urban Areas		1:30-1:15
Maha A. Mahmoud Ministry of Higher Education and Scientific Research Athmar A.M. Al-Mashhady and Ali N. Ali Environmental Research Center, University of Technology, Baghdad, Iraq		
وجبة الغداء		3:00-1:30

قاعة رقم 4	<p>الجلسة الصباحية الثامنة 2018/11/25</p> <p>رئيس الجلسة: الأستاذ المساعد الدكتور أحمد محمد حسن مقرر الجلسة: الأستاذ المساعد الدكتور معن سلمان حسين</p>
<p>ESD 36: Solar Photocatalytic Degradation of Cibacron Red FN_R by ZnO Coated on Fiberglass Sheet</p> <p>Eman A. Mohammed¹, Abdul Hameed M.J. Al-Obaidy², Safaa N. Al-Hussaini³ ¹Environmental Engineering Department, Al-Mustansiriyah University, Baghdad, Iraq ²Environmental Research Center, University of Technology, Baghdad, Iraq ³Environmental Engineering Department, Al-Mustansiriyah University, Baghdad, Iraq</p>	11:45-11:30
<p>ESD 37: Air Quality Assessment of Some Selected Hospitals within Baghdad City</p> <p>Azhar M. Haleem¹, Abdul Hameed M.J. Al-Obaidy¹, Salah M. Haleem² ¹Environmental Research Center, University of Technology, Baghdad, Iraq ²Kamal Al-Samarrai Specialist Hospital, Baghdad, Iraq</p>	12:00-11:45
<p>ESD 55: Study the Performance of Dissolved Air Flotation as Industrial Wastewater Treatment Method</p> <p>Thamer J. Mohammed & Mohammed K. Al-Barazanji University of Technology</p>	12:15-12:00
<p>ESD 139: Fabrication and Evaluation some Mechanical Properties Hybrid Polymeric Nanocomposites for Structural Applications</p> <p>Sihamia I. Al-Shalchy, Kadhum M. Shabeeb, Ammar M. Hasan and Rula F. Hasan Department of Materials Engineering, University of Technology, Baghdad, Iraq.</p>	12:30-12:15
<p>ESD 84: Cement Based Solidification/Stabilization Leaching Performances of Selected Heavy Metal Ions under Different pH Extractions</p> <p>Basim A. Hussain¹, Shahlaa E. Ebrahim², Abbas H. Sulaymon² ¹Ministry of Science and Technology, Directorate of Hazardous Wastes Treatment and Disposal, Baghdad, Iraq ² Environmental Engineering Dept., University of Baghdad, Baghdad, Iraq</p>	12:45-12:30
<p>ESD 136: Water Quality Pollution Indices to Assess Heavy Metal Contamination; Case Study: Surface Water Resources Of Karbalaa City In 2016</p> <p>Noor Sahib Imran¹, Sataa A.F. Al – Bayati², Jawad K. AL-Rifaie³ ¹Architecture Department, Al Safwa University College, Karbalaa, Iraq ²Civil Engineering Department, University of Technology, Baghdad, Iraq ³Mussaib Tech. Institute, Al- Furat Al-Awsat University, Iraq</p>	1:00-12:45
<p>ESD 157: Environmental Impact Assessment of Medical Wastes Shredding Machine in Al-Hila Teaching Hospital- Babylon Province, IRAQ</p> <p>Zeena H. Ali¹, Sedik A.K. Al-Hiyaly², Ghayda Y. Al-Kindid¹ Sanitary and Environmental Engineering, Civil Engineering Department, University of Technology, Baghdad, Iraq, ²Environmental Research Center, University of Technology, Iraq</p>	1:15-1:00
وجبة الغداء	3:00-1:30

الجلسات العلمية المسائية 2018/11/25	
قاعة رقم 1	الجلسة المسائية الأولى 2018/11/25
	رئيس الجلسة: الأستاذ الدكتور علي حسين عتيوي مقرر الجلسة: الأستاذ المساعد الدكتورة سكينه حسن هاشم
ESD 108: Green Computing and Greening Internet of Things	
Hala B. Abdul Wahab Computer Sciences Department, University of Technology, Baghdad, Iraq.	
ESD 162: The Relationship between Traffic Congestion and Land Uses, Case Study: AL Kut City	
Ihsan A. Jasim ¹ , Thaer Shaker ² , Sohaib K. Al-Mamoori ³ ¹ Department of Architecture Engineering, Wasit University, Iraq ² Department of Civil Engineering, Anbar University, Iraq ³ Department of Environmental Planning, Faculty of Physical Planning, University of Kufa, Najaf, Iraq	
ESD 143: The Effect of Using Multi Types of Mineral Admixtures on Some Properties of Lightweight Self-Compacting Concrete	
Waleed A. Abbas, Qais J. Frayyeh, Shubbar J. Al Obaidey University of Technology, Baghdad, Iraq	
ESD 142: Advanced Functionally Graded Materials by Powder Technology	
Mohammed J. Kadhim ¹ , Iman A. Annon ² , Nour A. Rasheed ² ¹ Nanotechnology and Advanced Materials Research Center, University of Technology ² Department of Production Engineering and Metallurgy, University of Technology, Baghdad, Iraq	
ESD 141: Characterization of Ceramic-Ceramic Functionally Graded Materials by Powder Technology	
Mohammed J. Kadhim ¹ , Iman A. Annon ² , Nour A. Rasheed ² ¹ Nanotechnology and Advanced Materials Research Center, University of Technology ² Department of Production Engineering and Metallurgy, University of Technology, Baghdad, Iraq	
ESD 122: Design Process Performance for Optimum Selection of Laser Parameters for Laser Sealing of Thermal Barrier Coatings	
Mohammed J. Kadhim ¹ , Mohammed H. Hafiz ² , Maryam A. Alibash ³ ¹ Nanotechnology and Advanced Materials Research Center, University of Technology, Baghdad ² College of Engineering, Al-Iraqi University, Baghdad, Iraq ³ Department of Production Engineering and Metallurgy, University of Technology, Baghdad, Iraq	
استراحة	
جولة حرة مع وجبة عشاء	
الجلسة المسائية الثانية 2018/11/25	
قاعة رقم 2	رئيس الجلسة: الأستاذ الدكتور محمد سليمان اليماني مقرر الجلسة: الأستاذ الدكتور سناء أبو شنب
ESD 56: Phytochemical and Antioxidant Activity of Asplenium Species (Spleenworts) Extracts from Northern Districts of Iraq	
Abbas M. Ismail ¹ , T.O. Al-Khasreji ² , B.K. Maulood ³ , ¹ College of Science for Women, University of Baghdad, Baghdad, Iraq ² College of Education for Pure Science, University of Tikrit, Saiahddin, Iraq ³ College of Science, University of Salahddin, Erbil, Iraq	
ESD 64: DNA Fingerprints of Two Tilapia Fish Species Using RAPD Markers in Euphrates River in Governorate of Al-Muthanna	
Taha Y. Al-Khafaji ¹ , Mustafa S. F. Ziyadi ² , Marwa K. Musad ²	

¹ Dept. Animal production, college of Agriculture, University of Muthanna. ² Dept. Marine Vertebrate, Marine Science Centre, University of Basrah		
ESD 65: Assessment of Wetland Restoration and Climate Change Impacts on Water Balance Components of the Heeia Coastal Wetland in Hawaii		3:45-3:30
K.A. Ghazal ¹ , O.T. Leta ² , A.I. El-Kadi ³ , H. Dulai ³ ¹ Department of Soil Science and Water Resources, University of Kufa, Najaf, Iraq ² Water Resources Research Center, University of Hawaii at Manoa, Honolulu, HI, 96822, USA ³ Dept. of Geology and Geophysics, University of Hawaii at Manoa, Honolulu, HI, 96822, USA		
ESD 88: Checklist of Algal Flora in Tigris River within Baghdad city –Iraq		4:00-3:45
Jinan S. Al Hassany, Rawaa N. Al-saedy and Fikrat M. Hassan Department of Biology, College of Science for Women, University of Baghdad, Iraq		
ESD 78: Efficacy of Ecofriendly Biocontrol Azotobacter and Lactobacillus for Enhancing Plant Growth and Reducing Infection by Neoscytalidium Spp. on Fig Saplings		4:15-4:00
Sabah L. Alwan, Hawraa N. Hussein Faculty of Agricultural, Dept. of Plant Protection, University of Kufa, Najaf, Iraq		
ESD 58: Effect of Integrated Fertilization System (Mineral–Organo and Biological) On Growth and N, P Content of Barley Plants (<i>HoredumVulgare</i> L.)		4:30-4:15
Z.K. Hasan, N.I. Ashour, H.F. Jasem Dept. of Soil Sci. and water Resources, College of Agriculture, University of Basrah, Iraq.		
استراحة		6:00-4:30
جولة حرة مع وجبة عشاء		10:00-6:00
الجلسة المسائية الثالثة 2018/11/25		
قاعة رقم 2	رئيس الجلسة: الأستاذ الدكتور ثامر جاسم محمد مقرر الجلسة: الأستاذ المساعد الدكتور فلاح حسن رحيل	
ESD 82: Evaluation of Microcin N Gene Presence in <i>Enterobacteriaceae</i> Collected from Patients Suffering from UTI from Hospitals in AL-Najaf City		3:15-3:00
Sahar M. Jawad AL-Salam District City, Najaf, Iraq		
ESD 86: Comparison between Iraqi Gauges and TRMM Rainfall Data over Middle Euphrates Region during Period from 1998 to 2017		3:30-3:15
Imzahim A. Alwan ¹ , Abdul Razzak T. Ziboon ¹ , Alaa G. Khalaf ² ¹ University of Technology, Civil Engineering Department, Baghdad, Iraq ² Ministry of Science and Technology, Space and Communication Directorate, Baghdad, Iraq		
ESD 133: A Study on the Coliform Bacteria in Basrah Water and Fish Ponds		3:45-3:30
Amjed K. Resen and Khalidah S. Al-Niaeem College of Agriculture, University of Basrah, Basrah, Iraq		
ESD 134: Assessment and Management of Iraqi Marine Artisanal Fisheries, Northwest of the Arabian Gulf		4:00-3:45
Abdul-Razak M. Mohamed Department of Fisheries and Marine Resources, College of Agriculture, University of Basrah		
ESD 152: Monitoring of Algal Communities in Mesopotamia (Auda Marsh), Iraq		4:15-4:00
Alaa I. Al-buajee ¹ , Ali A.Z. Douabul ² , Fikrat M. Hassan ¹ ¹ Department of Biology, College of Science for Women, University of Baghdad, Baghdad, Iraq ² Marine Science Center, University of Basra, Basra, Iraq		

ESD 166: The Effect of Increasing Ambient Air Temperature on Air Pollutants Concentration		4:30-4:15
Layla L. Alwan ¹ Sedik A. Kasim ² Ayat H. Mahdi ³ ¹ Petroleum Technology Dept., ² Environmental Research Center, ³ Civil Engineering Dept., University of Technology		
استراحة		6:00-4:30
جولة حرة مع وجبة عشاء		10:00-6:00
قاعة رقم 4	الجلسة المسائية الرابعة 2018/11/25 رئيس الجلسة: الأستاذ المساعد الدكتور علي عمار خليف مقرر الجلسة: الأستاذ المساعد الدكتور جمال محمد حمد	
ESD 163: Isolation and Identification of Ureolytic Bacteria Isolated from Livestock Soil to Improve the Strength of Cement Mortar		3:15-3:00
Hussein J. Khadhim ¹ , Shahlaa E. Ebrahim ¹ , Saad H. Ammar ² ¹ Environmental Engineering Department, Baghdad University, Baghdad, Iraq ² Chemical Engineering Department, Al-Nahrain University, Baghdad, Iraq		
ESD 138: Preparation and Study Some Mechanical and Morphological Properties of Ternary Polymer Blends		3:30-3:15
¹ Sihamam I. Salih, ¹ Wafaa M. Salih and ² Teeb A. Mohameed ¹ Materials Engineering Department, University of Technology / Baghdad-Iraq ³ Central Organization for Standardization and Quality Control Baghdad, Iraq		
ESD 149: The Influence of Recycled Crushing Strength of RC Beams under Repeated Loading		3:45-3:30
Mohammed A.E. Al- Hamdani, Marawan M. Hamid, Nada M. Al Hussiny Civil Engineering Department. University of Technology, Baghdad, Iraq		
ESD 144: Using Gray Relational Analysis to Determine Optimum Process Parameters regarding the Characteristics of Polymeric Hybrid Composite Materials Prepared by the Friction Stir Process Technique		4:00-3:45
Siham I. Salih ¹ , Jawad K. Olewi ² , Sajid A. Alkhidhir ¹ Department of Materials Engineering, University of Technology, Baghdad, Iraq ² Department of Mechanics, Babylon Technical Institute, Babylon, Iraq		
ESD 81: Response of the Quality of the Potato Tubers to the Addition of the Ground of the Palm Residue Compost and the Spraying of the Humic Acid		4:15-4:00
Abbas Kh. Mijwel, Adil N. A. Al-Redha, Tarif H. Bresim Faculty of Agriculture, University of Al-Qasim Green, College of Technology in Musayyib		
ESD 79: Protect the Coast from Erosion by Planting Mangroves on Iraqi Beaches		4:30-4:15
Aymen A. Al-Rubaye Marine Science Center, University of Basrah, Basrah, Iraq		
استراحة		6:00-4:30
جولة حرة مع وجبة عشاء		10:00-6:00

اليوم الثالث الاثنين 2018/11/26	
الانتقال صباحا بعد الإفطار الى الغردقة	
اليوم الخامس الثلاثاء 2018/11/27	
12:00-10:00	جلسة حوارية لمناقشة أفاق التعاون العلمي بين الوفود المشاركة في المؤتمر
اليوم السادس الأربعاء 2018/11/28	
12:00-10:00	الجلسة الختامية التوصيات وتوزيع الشهادات التقديرية

لجنة اعداد التوصيات

1. الأستاذ الدكتور ثامر جاسم محمد
2. الأستاذ الدكتور خالد محمد حسين
3. الأستاذ الدكتور أمجد كاظم رسن
4. الأستاذ المساعد الدكتور فلاح حسن رحيل
5. الأستاذ المساعد الدكتور معن سلمان حسن
6. الأستاذ المساعد الدكتور سحر أحمد أمين
7. الأستاذ المساعد الدكتور صالح عبد الرضا الصالح