



Botanical Society of Pakistan



8th international and 17th National Conference

on

“Advances in Plant Science in the Era of Climate Change”

Government College University, Lahore & University of the Punjab, Lahore

October 26-28, 2022



CONFERENCE PROGRAM



<p style="text-align: center;">8th International and 17th National Conference on “Advances in Plant Science in the Era of Climate Change” 26th-28th October 2022</p> <p style="text-align: center;">Day 1 Government College University, Lahore</p>	
8:00-9:30	Registration
9:30-11:30	Inaugural Session
	<ul style="list-style-type: none"> • Recitation of Holy Quran • Welcome Address by President Botanical Society of Pakistan • Introductory Remarks by Secretary General Botanical Society of Pakistan • Remarks by representative of CORTEVA Agriscience Ltd. • Address by Guest of Honor • Address by Chief Guest • Distribution of Souvenirs
11:30-12:00	TEA
	<p style="text-align: center;">PLENARY SESSION (Bukhari Auditorium, GCU) Chair: Prof. Dr. Manzoor H. Somroo Co-Chair: Prof. Dr. Arifa Tahir</p>
12:00-12:20	Prof. Dr. Kausar Abdullah Malik
	Prof. Dr. Senol Akin
12:20-12:40	Stable isotope method to identify energy flow in aquatic food webs.
	Prof. Dr. Muhammad Ashraf
12:40-13:00	History and Status of Plant Science Research: A Drift from Upsurge to Destruction of Science.
	Prof. Dr. Muhammad Qaisar
13:00-13:20	Astraceae in Pakistan and Kashmir - An overview.
13:20-14:20	LUNCH/PRAYER BREAK
	<p style="text-align: center;">Session 1 (Institute of Industrial Biotechnology, Conference Room) Plant Biochemistry, Biotechnology and Bioinformatics Chair: Prof. Dr. Muhammad Nauman Aftab Co-Chair: Prof. Dr. Sikandar Ali</p>
14:20-14:40	Prof. Dr. Amir Faisal: Identification and characterization of natural and semisynthetic compounds as inhibitors of Aurora and FLT3 kinases.
Keynote Talk	
14:40-14:55	APSECC-2022-OP-46: Sequestration of amylase by microbial fermentation using PGPR
	APSECC-2022-OP-47: Effect of pre and post sowing GA ₃ treatments on morphology, physiology and biochemistry of <i>Cicer arietinum</i> L.
14:55-15:10	
	APSECC-2022-OP-48: Evaluation of antibacterial potential of endophytic <i>Fusarium</i> spp., isolated from healthy plants and GC-MS profiling of metabolites from <i>Fusarium moniliforme</i>
15:10-15:25	
	APSECC-2022-OP-49: Mycogenic synthesis of Zinc oxide nanoparticles from a wild mushroom and evaluation of its antifungal potential
15:25-15:40	
	APSECC-2022-OP-50: Production of single cell protein from <i>Rhizopus oligosporus</i> using agro-industrial waste product (Nakku – broken rice) as substrate
15:40-15:55	
	<p style="text-align: center;">Session 2 (Botany Junior Lecture Theatre) Plant Taxonomy and Ethnobotany Chair: Prof. Dr. Muhammad Saleem Co-Chair: Dr. Safdar Ali Mirza</p>
14:20-14:40	Prof. Dr. Anjum Perveen: Trichomes morphology as a taxonomic markers in the subfamilies <i>Boraginoideae</i> <i>Cordioideae</i> from Pakistan and Kashmir
Keynote Talk	
	APSECC-2022-OP-01: Taxonomic revision of <i>Mentha</i> L. (Lamiaceae), with special emphasis on infraspecific variation within <i>Mentha longifolia</i> L. from Northern Pakistan
14:40-14:55	
14:55-15:10	APSECC-2022-OP-02: Additions to the genus <i>Cortinarius</i> in Pakistan: with description of five new species
	APSECC-2022-OP-03: Floristic inventory and ethno-botanical survey of the Kinhati Botanical Garden and Rakh Khabbeki wildlife sanctuary in Soon Valley Punjab Salt Range
15:10-15:25	
	APSECC-2022-OP-04: Ethnobotanical profile and ecological status of plants in sacred places of the Thal Desert A 65, Pakistan
15:25-15:40	

15:40-15:55	APSECC-2022-OP-05: Genome size variations among different date palm cultivars (<i>Phoenix dactylifera</i> L.) by flow cytometry.
	Session 3 (SDSC Conference Room) Environmental Applied Botany Chair: Prof. Dr. Amin ul Haq Co-Chair: Dr. Abdul-Sattar Nizami
14:20-14:40 Keynote Talk	Prof. Dr. Khurram Joya: Artificial Photosynthesis and Solar Fuels: Light Harvesting, Water Splitting and CO ₂ Conversion.
14:40-14:55	APSECC-2022-OP-08: Spatiotemporal modeling and mapping of soil erosion, sediment transport, and retention services in the terrestrial ecosystem of Pakistan and linkages with SDGs
14:55-15:10	APSECC-2022-OP-09: Vegetation structure its regarding conservation status of Talash Valley, District Dir (Lower), Pakistan
15:10-15:25	APSECC-2022-OP-10: Biosorption potential and molecular characterization of metal resistant autochthonous microbes from tannery solid waste
15:25-15:40	APSECC-2022-OP-11: Exogenous Application of Green Titanium Dioxide Nanoparticles (TiO ₂ NPs) on Wheat in Response to Salinity Stress
15:40-15:55	APSECC-2022-OP-12: Evaluation of phytoremediation potential of four wetland plant species for the removal of heavy metals from Textile mill effluents (TME)
	Session 4 (Physics Seminar Room) Plant Physiology Chair: Prof. Dr. Qurat ul Ain Co-Chair: Prof. Dr. Zubaida Yousuf
14:20-14:40 Keynote Talk	Prof. Dr. M. Rafiq: Study of nitrogen release behaviors on germination and growth of local wheat (<i>Triticum aestivum</i> L.)
14:40-14:55	APSECC-2022-OP-22: Role of abscisic acid in seed germination and morpho-biochemical attributes of rice seedlings under harmful effects of saline stress
14:55-15:10	APSECC-2022-OP-23: A9: Role of hydroxyl benzoic acid foliar spray on amelioration of mercuric chloride tolerance in two varieties of <i>Abelmoschus esculentus</i> L.
15:10-15:25	APSECC-2022-OP-24: Modulation in mineral nutrients and yield attributes of sunflower (<i>Helianthus annuus</i> L.) at various growth stages by foliar-applied triacontanol under saline regimes
15:25-15:40	APSECC-2022-OP-25: Physio-biochemical responses of zinc biofortified and non-biofortified wheat (<i>Triticum aestivum</i> L.) varieties to aerial application of ascorbic acid and α -tocopherol under salinity stress
15:40-15:55	APSECC-2022-OP-26: Combined effect of light emitting diodes and zinc oxide nanoparticles on growth and nutritional value of chickpea sprouts
15:55-16:15	TEA/PRAYER BREAK
	Session 5 (Institute of Industrial Biotechnology, Conference Room) Plant Biochemistry, Biotechnology and Bioinformatics Chair: Prof. Dr. Hamid Mukhtar Co-Chair: Dr. Asad ur Rehman
16:15-16:30	APSECC-2022-OP-51: Hemp—A nature's gift for human wellbeing
16:30-16:45	APSECC-2022-OP-52: Quality characteristics of cookies produced through composite flours of wheat and mushroom
16:45-17:00	APSECC-2022-OP-53: Immobilization of <i>Aspergillus oryzae</i> tyrosine hydroxylase on ZnO nanocrystals for improved stability and catalytic efficiency towards L-dopa production
17:00-17:15	APSECC-2022-OP-54: Strong cation exchange chromatography based bioactivity of cationic peptides from <i>Solanum lycopersicum</i> (tomato) under saline stress
17:15-17:30	APSECC-2022-OP-55: Physical adsorption of <i>Bacillus licheniformis</i> alginate lyase on silica-gel matrices for stability in algino-oligosaccharides synthesis
	Session 6 (Botany Junior Lecture Theatre) Plant Taxonomy and Ethnobotany/ Environmental Applied Botany Chair: Prof. Dr. Zaheer ud Din Khan Co-Chair: Dr. Uzma Hanif
16:15-16:30	APSECC-2022-OP-06: Ethnobotanical studies, phytochemical investigation and antimicrobial efficacy of selected medicinal plants of family Zygophyllaceae, District Gilgit.
16:30-16:45	APSECC-2022-OP-07: Ethnobotanical studies on the wild flora of Tehsil Taunsa Sharif, Dera Ghazi Khan, Punjab, Pakistan
16:45-17:00	APSECC-2022-OP-13: Remote sensing for early detection of invasive species in protected areas of Pakistan
17:00-17:15	APSECC-2022-OP-14: <i>Solanum Viarum</i> Dunal, a new invasive plant in Pakistan, and assessment of future range expansion through species distribution modeling

17:15-17:30	APSECC-2022-OP-15: Estimation of plant biodiversity and indicator species for biomonitoring of leather industrial polluted zone of Sialkot, Pakistan
	Session 7 (SDSC Conference Room) Environmental Applied Botany Chair: Prof. Dr. Faiza Sharif Co-Chair: Dr. Muhammad Farahan
16:15-16:30	APSECC-2022-OP-16: Optimization, regeneration and application of plant growth promoting bacteria (PGPBs) on sugarcane cell lines (<i>Saccharum</i> spp. hybrid)
16:30-16:45	APSECC-2022-OP-17: Phyto-mediated synthesis of zinc oxide nanoparticles using <i>Nigella sativa</i> L. extract and evaluation of its antioxidant and antibacterial potential
16:45-17:00	APSECC-2022-OP-18: Equilibrium kinetics and thermodynamic studies on biosorption of heavy metals by metal resistant strains of <i>Trichoderma</i> isolated from tannery solid waste
17:00-17:15	APSECC-2022-OP-19: Amelioration of harmful effects of chromium (Cr) on growth, yield and some physiological parameters of tomato (<i>Solanum lycopersicum</i> L. cv. Veloz) using locally isolated chromium tolerant bacteria
17:15-17:30	APSECC-2022-OP-20: Characterization and agronomic efficacy of N-rich biochar derived from waste chicken feathers
	Session 8 (Physics Seminar Room) Plant Physiology Chair: Prof. Dr. Rana Abrar Hussain Co-Chair: Dr. Umer Farooq Awan
16:15-16:30	APSECC-2022-OP-27: Combine effects of different concentration of Cd and Cr on physiology and phytochemicals of wheat (<i>Triticum aestivum</i> L.)
16:30-16:45	APSECC-2022-OP-28: Screening zinc transport efficiency in historical and elite wheat germplasms of Pakistan
16:45-17:00	APSECC-2022-OP-29: Iron sulfate (FeSO ₄) improved physiological attributes and antioxidant capacity by reducing oxidative stress of different <i>Oryza sativa</i> L. cultivars in alkaline soil
17:00-17:15	APSECC-2022-OP-30: Salt stress mitigation using <i>Ascophyllum nodosum</i> extract on tuberization in <i>Solanum tuberosum</i> L.
17:15-17:30	APSECC-2022-OP-31: Intraspecific leaf trait variations in Himalayan shrub <i>Rubus ellipticus</i> L. along soil gradient
19:00	GALA DINNER (THE OVAL, GCU)

DAY 2
Institute of Botany, University of the Punjab, Lahore

	PLENARY SESSION (Botany Auditorium) Chair: Prof. Dr. Razi Abbas Shamsi Co-Chair: Prof. Dr. Faheem Aftab
9:30-9:50	Prof. Dr. Francis Brearley: Asian Forest Responses to Soil, Disturbance and Climate Change Revealed by Long-Term Monitoring
9:50-10:20	Prof. Dr. Javed Iqbal: Can Agricultural Biotechnology mitigate climate change?
10:20-10:40	Prof. Dr. Manzoor Somro: Climate Change Education
10:40-11:00	TEA BREAK/DISPLAY OF POSTERS
	Session 9 (Botany Auditorium) Mycology & Plant Pathology Chair: Prof. Dr. Arshad Javed Co-Chair: Prof. Dr. Amina Shoaib
11:00-11:20 Keynote Talk	Prof. Dr. Khan Bahadur Marwat: Climate Change, Biodiversity and Food Security from Global Perspective
11:20-11:35	APSECC-2022-OP-32: <i>Asterophora lycoperdoides</i> (Bull ex. Merat) Ditmar ex Fr., a new generic record of gilled fungi from sub-Himalayan forests of Pakistan
11:35-11:50	APSECC-2022-OP-33: Epidemiological studies of bacterial leaf streak of wheat caused by <i>Xanthomonas translucens</i> pv. <i>undulosa</i> and its management through synthetic chemicals and phyto-extracts
11:50-12:05	APSECC-2022-OP-34: Screening of oil seed cakes against root rot pathogens (<i>in-vivo</i>) by drenching method
12:05-12:20	APSECC-2022-OP-35: Comparison of foliar microscopic, antimicrobial and molecular characterization of Geminivirus infected and healthy <i>Hibiscus rosa sinensis</i> L.
12:20-12:35	APSECC-2022-OP-36: <i>Amanita ahmadii</i> and <i>Amanita flavipes</i> : An Imperative Source of Some Secondary Metabolites, Curative Antimicrobial and Anthelmintic Agents
12:35-13:00	Display of Posters
	Session 10 (Room G-9) Agriculture, Horticulture Chair: Prof. Dr. Tehmina Anjum Co-Chair: Dr. Mubashira Munir
11:00-11:20 Keynote Talk	Prof. Dr. Siraj ud Din: Assessment of the Conservation Status of <i>Androsace ojhorensis</i> Y. Nasir: A Critically Endangered Stenochorous Endemic Species in Chitral, Hindukush Range, Pakistan
11:20-11:35	APSECC-2022-OP-59: Development of organic compost from solid waste and its application in vegetables production
11:35-11:50	APSECC-2022-OP-60: Temperature variations and excessive pesticides on crops leads to loss in agricultural yield and soil resources
11:50-12:05	APSECC-2022-OP-61: Use of co-composted biochar to improve soil fertility and crop productivity
12:05-12:20	APSECC-2022-OP-62: Comparative analysis of graft incompatibility potential of intraspecific and interspecific grafts of solanaceous plants
12:20-12:35	APSECC-2022-OP-63: Riboflavin (Vitamin B ₂) priming modulates changes in growth, physiological and biochemical traits of maize (<i>Zea mays</i> L.) under salt stress
12:35-13:00	Display of Posters
	Session 11 (G-10) Plant Breeding & Genetics Chair: Prof. Dr. Shahida Hassnain Co-Chair: Prof. Dr. Anjum Nasim Sabri
11:00-11:20 Keynote Talk	Dr. Hamayun Shaheen: Spatial Distribution, Community Structure and Conservation of <i>Taxus wallichiana</i> Zucc. in Azad Jammu and Kashmir
11:20-11:35	APSECC-2022-OP-64: Role of plant based liquid organic fertilizer in improving salinity tolerance of <i>Abelmoschus esculentus</i> (L.) Moench
11:35-11:50	APSECC-2022-OP-65: Selecting an appropriate variety of an apricot (<i>Prunus armeniaca</i> L.) based on phenology analysis from different habitats in the mountains of Gilgit Baltistan, Pakistan
11:50-12:05	APSECC-2022-OP-66: DNA barcoding and phylogenetics of endemic species of genus <i>Dicliptera</i> from the Western Himalayas
12:05-12:20	APSECC-2022-OP-67: Evaluation of apricot fruit fly infestation and management using botanical pesticides
12:20-12:35	APSECC-2022-OP-68: <i>Grapevine Geminivirus A</i> effect on taxonomic characters and biological activities of <i>Vitis vinifera</i> L. leaves

12:35-13:00	Display of Posters
	Session 12 Plant Biochemistry, Biotechnology & Bioinformatics/ Mycology & Plant Pathology Chair: Prof. Dr. Naeem Rashid Co-Chair: Dr. Atif Kamran
11:00-11:20 Keynote Talk	Prof. Dr. M. Ashraf Jahania: Micelles: Soap Industry & Amp; Drug Delivery
11:20-11:35	APSECC-2022-OP-56: Enhanced production of Lovastatin by <i>A. terreus</i> through prevailed phosphorylated Ser636 of MAT domain: <i>In silico</i> analysis
11:35-11:50	APSECC-2022-OP-57: Phosphate solubilizing bacteria: isolation, screening and optimization
11:50-12:05	APSECC-2022-OP-58: Statistical optimizations for biosynthesis of L-phenylacetylcarbinol (L-PAC) from <i>Pichia cecembensis</i> and stability studies of it's pyruvate decarboxylase (PDC)
12:05-12:20	APSECC-2022-OP-37: Comprehensive study of sudden decline disease of date palm (<i>Phoenix dactylifera</i> L.) in Pakistan
12:20-12:35	APSECC-2022-OP-38: <i>Ganoderma adspersum</i> and <i>Ganoderma applanatum</i> from Pakistan
12:35-13:00	Display of Posters
13:00-14:00	Lunch/Prayer Break
	Session 13 (Botany Auditorium) Mycology & Plant Pathology Chair: Prof. Dr. Najam ul Sehar Afshan Co-Chair: Dr. Abdul Rehman Khan Niazi
14:00-14:20 Keynote Talk	Prof. Dr. Hammad Majeed: Importance of Plant Material for Circular Economy to Reduce the Impact of Climate Change
14:20-14:35	APSECC-2022-OP-39: <i>Amanita flavipes</i> : A promising mycobiont for mitigating the effects of climate change
14:35-14:50	APSECC-2022-OP-40: Isolation and identification of fungi associated with spoilt fruits vended in markets of Chichawatni
14:50-15:05	APSECC-2022-OP-41: Morphological and molecular characterization of <i>Uromyces</i> species from Khyber Pakhtunkhwa, Pakistan
15:05-15:20	APSECC-2022-OP-42: New records of <i>Cladonia</i> species (Cladoniaceae, Lecanorales) from Pakistan
15:20-15:35	APSECC-2022-OP-43: Noteworthy reports of some mushrooms of Tehsil Noorpur Thal
	Session 14 (Room G-9) Phycology and Marine Botany/ Plant Breeding & Genetics Chair: Prof. Dr. Ghazala Yasmin Butt Co-Chair: Dr. Nousheen Yousaf
14:00-14:20 Keynote Talk	Prof. Dr. Mushtaq Ahmed: Sustainable Use of Plant Biodiversity for food, Health and Energy Security in Pakistan
14:20-14:35	APSECC-2022-OP-69: Line \times tester analysis for yield and its attributed traits in upland cotton (<i>Gossypium hirsutum</i> L.)
14:35-14:50	APSECC-2022-OP-70: New records of Phormidiaceae from Kallar Kahar Lake Pakistan
14:50-15:05	APSECC-2022-OP-71: Combine effect of salinity and flooding stress on growth and ecophysiology of <i>Phragmites karka</i>
15:05-15:20	APSECC-2022-OP-72: Heavy metal pollution and climate change in Phytoplankton from marine coastal area
15:20-15:35	APSECC-2022-OP-73: Protective role of marine macro algae in drug induced nephrotoxicity
	Session 15 (Room G-10) Plant Ecology Chair: Prof. Dr. Shakil Ahmed Co-Chair: Dr. Suhaib Muhammad
14:00-14:20 Keynote Talk	Prof. Dr. Sher Wali Khan: Assessment of Alpine Specific Genera and Species of Karakoram Range, Gilgit-Baltistan, Pakistan
14:20-14:35	APSECC-2022-OP-79: In site diversification and multiple migrations: the formation of Central Asian dry land biome implied by the historical biogeography of the IRLC Legumes
14:35-14:50	APSECC-2022-OP-80: Contribution of non-timber forest products to the local economy "A case study of tropical dry deciduous forests of Pakistan"
14:50-15:05	APSECC-2022-OP-81: Indicators woody species analysis along with soil gradient of the Kirthar Mountains Range Sindh, Pakistan
15:05-15:20	APSECC-2022-OP-82: Invasive species and its associated flora in the current scenario of climate shift in southern districts of Azad Kashmir

15:20-15:35	APSECC-2022-OP-83: Ecological impact assessment of Diamir Bhasha Dam construction in Gilgit-Baltistan, Pakistan
	Session 16 (Room G-12) Medicinal Plant and Impact on COVID Treatment/ Plant Microbe Interaction Chair: Prof. Dr. Samian Mehnaz Co-Chair: Dr. Abdul Razzaq
14:00-14:20 Keynote Talk	Prof. Dr. Waheed Murad: Multiple Health Benefits of Curcumin and its Therapeutic Potential
14:20-14:35	APSECC-2022-OP-74: Investigations of adulterations in some powders of medicinal plants used for the treatment of COVID-19
14:35-14:50	APSECC-2022-OP-75: <i>Mentha based</i> Cerium oxide nanoparticles application in Diabetes therapeutics
14:50-15:05	APSECC-2022-OP-76: Ameliorate adzuki beans production by eradicating root deterioration fungi using medicinal plants
15:05-15:20	APSECC-2022-OP-77: Consortium of potassium solubilizing bacteria improves growth and yield of soybean
15:20-15:35	APSECC-2022-OP-78: The Microphenotyping system: A novel method for screening drought tolerant plant-growth promoting Rhizobacteria
15:35-16:00	TEA/Poster Session/Prayer Break
	Session 17 (Botany Auditorium) Plant Ecology/Climate Change/ Environmental Applied Botany Chair: Prof. Dr. Firdaus e Bareen Co-Chair: Dr. Aisha Nazir
16:00-16:15	APSECC-2022-OP-84: Ecological assessment of Air Pollution Tolerance Index (APTI), Heavy Metal Accumulation Index (MAI) and Soil Pollution Index (SPI) of dominant deciduous plants of an urban ecosystem (Lahore), Pakistan
16:15-16:30	APSECC-2022-OP-85: Ecological studies of <i>Senegalia modesta</i> and <i>Olea europaea</i> subsp. <i>cuspidata</i> along elevation gradient in the Punjab region
16:30-16:45	APSECC-2022-OP-86: Documentation and proximate analysis of wild vegetables consumed by the people of Hajira in Azad Jammu and Kashmir, Pakistan
16:45-17:00	APSECC-2022-OP-91: Study of impact of climate change on phenology and yield of wheat varieties cultivated in district Bhimber of Azad Jammu and Kashmir, Pakistan and future adaptive measures
17:00-17:15	APSECC-2022-OP-92: Geostatistical analysis of spatial distribution of Apricot Shot Hole disease, climate scenarios and control through trunk injection delivery system in North Part of Pakistan
17:15-17:30	APSECC-2022-OP-21: Morpho-anatomical response of some <i>Carex</i> L. species to elevation gradient in the pine forest region
	Session 18 (Room G-9) Palynology/Mycology and Plant Pathology Chair: Prof. Dr. Kausar Malik Co-Chair: Dr. Farhat Rass Masood
16:00-16:15	APSECC-2022-OP-87: Palynomorphic distribution of Pan Sandstone and Korara Shale Shah Noorani area Baluchistan
16:15-16:30	APSECC-2022-OP-88: Palynomorphic characterization of ethnobotanically important plants of Tehsil Hafizabad
16:30-16:45	APSECC-2022-OP-89: Palynology of some carbonaceous shales, Tharparkar, Sindh, Pakistan
16:45-17:00	APSECC-2022-OP-90: Comparative palynological analysis of some selected members of the Tribe Trifoleae (Fabaceae) from Lahore, Pakistan
17:00-17:15	APSECC-2022-OP-44: Occurrence of <i>Erysiphe friesii</i> var. <i>dahurica</i> . on Purple Buckthorn from Pakistan
17:15-17:30	APSECC-2022-OP-45: Green synthesis of copper nanoparticles from <i>Allium sativum</i> extract controls the post-harvest Stem End Rot Disease of mangoes

Day 3
Institute of Botany, University of the Punjab, Lahore

9:30-10:30	General Body Meeting (Auditorium Institute of Botany, University of the Punjab, Lahore)
10:30-11:30	Concluding Ceremony
	<ul style="list-style-type: none"> • Recitation of Holy Quran • Conference Report by the General Secretary • Address by Guest of Honor • Address by Chief Guest • Vote of Thanks by the Director, Institute of Botany, University of the Punjab Lahore. • Distribution of Souvenirs
11:30-12:00	TEA
14:00	WALLED CITY TOUR