

INTERNATIONAL CONFERENCE ON
EDUCATION IN
MATHEMATICS,
SCIENCE &
TECHNOLOGY

PROGRAM BOOK



MAY, 18-21, 2017
EPHESUS-KUŞADASI
TURKEY



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SCHEDULE

THURSDAY (May 18, 2017)

10:00 - ...	Conference Registration & Hotel Check-in
12:00 - 13:30	Lunch Break
13:30 - 15:00	Conference Registration & Hotel Check-in
15:00 - 15:30	Coffee Break
15:30 - 17:00	Opening Ceremony & Keynote Speech (Prof.Dr. Mack Shelley) - Royal Hall <i>"The Rise of Engineering in STEM Education"</i>
17:00	Art Exhibition Opening (Lect. Alparslan Tekin) – Lobby Hall
17:00 - 19:00	Poster Presentation - Lobby Hall
19:00 - 21:00	Dinner

FRIDAY (May 19, 2017)

07:00 - 08:30	Breakfast
08:30 - 10:00	Session – Presentations
10:00 - 10:30	Coffee Break
10:30 - 12:00	Keynote Speech (Prof.Dr. Valarie Akerson) - Royal Hall <i>"Defining the 'S' in STEM: Nature of Science as a component of STEM Literacy"</i>
12:00 - 13:30	Lunch Break
13:30 - 15:00	Session – Presentations
15:00 - 15:30	Coffee Break
15:30 - 17:00	Session – Presentations
17:00 - 19:00	Panel - Royal Hall <i>"21st Century Skills and STEM Education"</i>
19:00 - 21:00	Dinner

SATURDAY (May 20, 2017)

07:00 - 08:30	Breakfast
08:30 - 10:00	Session – Presentations
10:00 - 10:30	Coffee Break
10:30 - 12:00	Keynote Speech (Assoc. Prof. Dr. Hakan Akcay) - Royal Hall <i>"Promoting STEM Education for All Students"</i>
12:00 - 13:30	Lunch Break
13:30 - 15:00	Session – Presentations
15:00 - 15:30	Coffee Break
15:30 - 17:00	Session – Presentations
17:00 - 19:00	Session – Presentations & Workshop – Committee 2 Hall <i>"Create New Products by Using Simple Materials in your Class within STEM Education!"</i>
19:00 - 21:00	Dinner

SUNDAY (May 21, 2017)

07:00 - 08:30	Breakfast
08:30 - 10:00	Closing Ceremony - Royal Hall
10:00 - 10:30	Coffee Break
Before noon	Hotel Check-out

ORAL PRESENTATIONS**SESSION I: May 19, 2017 – Friday (08:30 – 10:00)**

PIRENE HALL	CHAIRS: Wajeeh Daher - Zülfiye Zeybek
	A0026 - MATHEMATICS EDUCATION IN BILINGUAL MANNER: COGNITIVE COSTS <i>Leila Salekhova</i>
	A0051 - GENDERED MATHEMATICS CLASSROOMS IN NIGERIA PRIMARY SCHOOLS IN THE 21ST CENTURY <i>Zinyahs, Maris Zakka, Farhad Balash</i>
	A0072 - PRE-SERVICE TEACHERS' UNDERSTANDING OF GEOMETRIC REFLECTIONS <i>Murat Akarsu</i>
	A0116 - IN-SERVICE MATHEMATICS TEACHERS' INTEGRATION OF ICT AS INNOVATIVE PRACTICE <i>Wajeeh Daher, Nimer Baya'a, Rawan Anabousy</i>
	A0163 - LEARNING TO UNDERSTAND INCLUSION RELATIONS OF QUADRILATERALS <i>Zülfiye Zeybek</i>
	A0167 - THE VAN HIELE LEVELS OF GEOMETRIC UNDERSTANDING AMONG EAST JERUSALEM PRE-SERVICE MATHEMATICS TEACHERS <i>Shaker Rasslan, Fadi Othman</i>

SESSION I: May 19, 2017 – Friday (08:30 – 10:00)

EFES HALL	CHAIRS: Yoon Fah Lay - Şahin İdin
	A0096 - INVESTIGATING A SCIENCE TEACHER'S PEDAGOGICAL DIFFICULTIES WHILE TEACHING 7TH GRADE FORCE AND MOTION UNIT <i>Burak Çaylak, Jale Çakiroğlu</i>
	A0097 - CONNECTING CLASSROOM DISCOURSE TO STUDENTS SCIENCE LEARNING IN A REFORM-BASED CURRICULUM UNIT <i>Murat Akarsu, Maurina Aranda, Richard Lie, Selcen Guzey, Tamara Moore</i>
	A0107 - A QUALITATIVE STUDY ON MIDDLE SCHOOL STUDENTS' LEARNING SCIENCE BY USING ENRICHED OUT-OF-SCHOOL ACTIVITIES <i>Şahin İdin, Cemil Aydoğdu</i>
	A0117 - THE PREDICTIVE EFFECTS OF ENGAGEMENT IN SCIENCE LESSONS AND ATTITUDES TOWARD SCIENCE <i>Yoon Fah Lay</i>
	A0118 - THE PREDICTIVE EFFECTS OF SCHOOL CLIMATE ON SOUTHEAST ASIAN GRADE 8 <i>Yoon Fah Lay</i>
	A0125 - BEYOND CLASSROOM BOUNDARIES, ENHANCING MARGINALIZED CHILDREN'S SELF-CONCEPT THROUGH LEARNING OUTSIDE CLASSROOM APPROACH <i>Cindy Wong Chyee-chen, Kamisah Osman</i>

SESSION I: May 19, 2017 – Friday (08:30 – 10:00)

COMMITTEE 1 HALL	CHAIRS: Kemal Özgen - Emrullah Erdem
	A0080 - PROBLEM POSING SKILLS TOWARDS MATHEMATICAL LITERACY: THE SAMPLE OF TEACHERS AND PRE-SERVICE TEACHERS <i>Kemal Özgen</i>
	A0081 - A THEORETICAL STUDY ON MATHEMATICAL LEARNING ACTIVITIES: A CASE OF FUNCTION CONCEPT <i>Kemal Özgen</i>
	A0152 - MODELING FOUR OPERATIONS ON INTEGERS: COUNTERS OR NUMBER LINE? <i>Emrullah Erdem, Ömer Şahin</i>
	A0153 - THE EFFECT OF TEACHING THROUGH USING DIFFERENT METHODS ON DEVELOPMENT OF MATHEMATICAL REASONING AND ATTITUDE <i>Emrullah Erdem, Yasin Soylu</i>
	A0165 - EXAMINATION OF SEVENTH GRADE STUDENTS' USING MATHEMATICAL LANGUAGE IN THE LINES AND ANGLES SUBJECT <i>Zehra Ünal, Büşra Günkaya, Ayşe Tekin Dede, Süha Yılmaz</i>
	A0184 - TEACHING THE TOPICS OF AREA MEASUREMENT IN SIXTH GRADE STUDENTS: AN ACTION RESEARCH <i>Özlem Tomooğlu, Aytaç Kurtuluş</i>

SESSION I: May 19, 2017 – Friday (08:30 – 10:00)

COMMITTEE 2 HALL	CHAIRS: Sinan Erten - Cemil Aydoğdu
	A0156 - THE INFLUENCE OF THE EDUCATION PROVIDED BASED ON RESEARCH INQUIRY BASED LEARNING APPROACH ON THE PRESERVICE TEACHERS' PLANNING PROCESSES <i>Nesli Kala Aydın, Selcan Sungur Alhan, Nur Akcanca, Tolga Saka</i>
	A0160 - THE EFFECTS OF ACTIVITIES WITH 5E MODEL PREPARED AS PART OF CONTEXT BASED SCIENCE EDUCATION ON STUDENT SUCCESS <i>Cemil Aydoğdu, Özge Sari Ay</i>
	A0166 - A NEW COOPERATIVE LEARNING TECHNIQUE: QUESTION JURY <i>Ibrahim Benek, Behiye Bezir Akçay</i>
	A0178 - A QUALITATIVE STUDY ON THE PERCEPTION OF VIOLENCE OF PRE-SERVICE TEACHER CANDIDATES <i>Sinan Erten, Atilla Ayaz Ünsal</i>
	A0193 - 8TH GRADE STUDENTS' KNOWLEDGE LEVELS ABOUT BASIC SCIENCE CONCEPTS <i>Coşkun Deveci, Oylum Çavdar, Yasemin Koç, Seda Okumuş</i>
	A0196 - DETERMINING PROSPECTIVE SCIENCE TEACHERS' KNOWLEDGE LEVELS RELATED TO DAILY-LIFE SCIENCE TOPICS <i>Yasemin Koç, Oylum Çavdar, Seda Okumuş, Coşkun Deveci, Nilüfer Okur Akçay</i>

SESSION I: May 19, 2017 – Friday (08:30 – 10:00)

COMMITTEE 3 HALL	CHAIRS: Emine Çil - Ceren Mutluer
	A0206 - IMPACT OF THE INTERACTIVE STORYBOOK READING METHOD ON CHILDREN'S SCIENTIFIC VOCABULARY ACQUISITION <i>Özlem Okyay, Adalet Kandir</i>
	A0210 - THE RELATIONSHIP BETWEEN CONSTRUCTIVIST LEARNING ENVIRONMENT AND STUDENTS' CRITICAL THINKING DISPOSITIONS IN SCIENCE <i>Bircan Dökmecioğlu, Yasemin Taş, Sündüs Yerdelen</i>
	A0211 - THE EFFECT OF COOPERATIVE EXPERIMENT METHOD AND USING ANIMATION ON STUDENTS' MOTIVATION AND ANXIETY TOWARDS SCIENCE COURSE <i>Özlem Ağgöl, Şeyma Çalıklar, Emre Yıldız, Ümit Şimşek, Yasemin Koç</i>
	A0214 - ASSESSMENT OF SKILL-BASED QUESTIONS PREPARED IN THE SCOPE OF FIFTH GRADE SCIENCE APPLICATIONS COURSE ACCORDING TO PISA PROFICIENCY LEVELS <i>Zeynep Öztürk, Ersin Karademir</i>
	A0227 - AN EVALUATION OF INSTRUCTIONAL INTEGRATION OF BOTANY, CHEMISTRY AND ART FOR TEACHING ABOUT PLANTS IN VIEW OF STUDENTS' PERSPECTIVES <i>Emine Çil</i>
	A0268 - AN OVERVIEW OF POSTGRADUATE THESES WITHIN THE FIELD OF SCIENCE AT EARLY CHILDHOOD EDUCATION IN TURKEY <i>Özlem Okyay, Ceren Mutluer</i>

SESSION I: May 19, 2017 – Friday (08:30 – 10:00)

ROYAL HALL	CHAIRS: Pinar Güner - Tuğba Uygun
	A0109 - IDENTIFYING STUDENTS' POSSIBLE SOLUTION STRATEGIES WHILE SOLVING QUESTIONS REGARDING THE CONCEPT OF MEAN <i>Didem Enisoğlu, Mine İşiksal Bostan</i>
	A0286 - PRE-SERVICE MIDDLE SCHOOL MATHEMATICS TEACHERS' GRAPHIC REPRESENTATIONS IN DERIVATIVE <i>Esra Demiray, Mine İşiksal Bostan</i>
	A0190 - HIGH SCHOOL STUDENTS' ARGUMENTATION PROCESS IN PROBABILITY <i>Esra Demiray</i>
	A0287 - EXAMINATION OF PRESERVICE MIDDLE SCHOOL TEACHERS' NATURE OF PEDAGOGICAL CONTENT KNOWLEDGE IN PERIMETER <i>Pinar Güner, Tuğba Uygun</i>
	A0148 - INVESTIGATING ACHIEVEMENT LEVELS OF SIXTH GRADE STUDENTS REGARDING ORDERING INTEGERS <i>Gizem Sevim Atayev, Mine İşiksal Bostan</i>
	A0359 - TEACHING MATHEMATICS USING LECTURE CAPTURE TECHNOLOGY <i>Diana Audi</i>

SESSION II: May 19, 2017 – Friday (13:30 – 15:00)

PIRENE HALL	CHAIRS: Canan Nakibođlu - Banu Çiçek Seyhan
	A0173 - INTERRELATIONS BETWEEN METACOGNITIVE AWARENESS AND CHEMISTRY PERCEPTIONS <i>Canan Koçak Altundađ, Fatma Alkan</i>
	A0083 - THE EFFECT OF GENDER AND GRADE LEVEL ON RURAL SARAWAK INDIGENOUS SECONDARY SCHOOL STUDENTS' ATTITUDES TOWARD CHEMISTRY LESSONS TO ENHANCE LEARNING <i>Murugan Mini Ratamun, Kamisah Osman</i>
	A0189 - EXAMINATION OF SECONDARY SCHOOL STUDENTS' CONCEPTIONS ABOUT METALLIC BONDING AND PROPERTIES OF METALS <i>Canan Nakibođlu</i>
	A0198 - OVERCOMING MISCONCEPTIONS ABOUT CHEMICAL EQUILIBRIUM: A STUDY OF PROBLEM-BASED LEARNING <i>Yildizay Ayyildiz, Leman Tarhan</i>
	A0127 - PRE-SERVICE TEACHERS' METAPHORICAL PERCEPTIONS TOWARDS GEN CONCEPT <i>Banu Çiçek Seyhan</i>
	A0128 - THE ANALYSIS OF THE COGNITIVE STRUCTURE OF STUDENTS TOWARDS LUNGS CONCEPT BY WORD ASSOCIATION TEST <i>Banu Çiçek Seyhan, Mehmet Diyaddin Yaşar, Aysel Temelli</i>

SESSION II: May 19, 2017 – Friday (13:30 – 15:00)

COMMITTEE 1 HALL	CHAIRS: Özkan Akman - Jale Kalemkuş
	A0266 - ATTITUDES OF PRIMARY SCHOOL TEACHERS TOWARDS USE OF TECHNOLOGY IN EDUCATION <i>Jale Kalemkuş, Fatih Kalemkuş</i>
	A0339 - REAL TIME REPORT APPLICATION BASED ON LEARNING RECORD STORE <i>Erdem Kismet, Burak Inner</i>
	A0352 - ANALYSIS OF IN-SERVICE TRAINING NEEDS IN TEACHING TECHNOLOGIES OF SOCIAL SCIENCES TEACHERS <i>Özkan Akman</i>
	A0353 - TECHNOLOGY SELF-SUFFICIENCY OF SOCIAL STUDIES AND CLASS TEACHER CANDIDATES <i>Özkan Akman</i>
	A0228 - THE EFFECT OF READING-WRITING-GAME METHOD ON STUDENTS ACADEMIC ACHIEVEMENTS AND READING COMPREHENSION SKILLS <i>Emre Yildiz, Özlem Ağgöl, Şeyma Çaliklar, Ümit Şimşek, Yasemin Koç</i>
	A0176 - WI-FI HOTSPOT BASED STUDENT ATTENDANCE CONTROL SYSTEM ON ANDROID PLATFORM <i>Meltem Kurt Pehlivanođlu, Nevcihan Duru</i>

SESSION II: May 19, 2017 – Friday (13:30 – 15:00)

COMMITTEE 2 HALL	CHAIRS: Ayşegül Sağlam Arslan - Meryem Görecek Baybars
	A0145 - THE ANALYSIS OF MENTORING PRACTICES' IMPACT ON THE INTRODUCTORY ACTIVITIES BY TEACHERS <i>Ayşegül Sağlam Arslan, Nedim Alev, Tuncay Özsevgeç, Alpaslan Şahinoğlu</i>
	A0146 - THE IMPACT OF MENTORING ACTIVITIES ON SELF-EFFICACY LEVELS OF TEACHERS: THE CASE OF PHYSICS TEACHERS <i>Ayşegül Sağlam Arslan, Nedim Alev, Tuncay Özsevgeç, Alpaslan Şahinoğlu</i>
	A0024 - TEACHER VIEWS ON PISA 2015 RESULTS <i>Mustafa Hilmi Colakoglu</i>
	A0218 - MENTAL MODELS OF PRE-SERVICE SCIENCE TEACHERS ABOUT ELECTRICAL CONDUCTIVITY OF METALS <i>Meryem Görecek Baybars</i>
	A0219 - DETERMINATION OF PRE-SERVICE SCIENCE TEACHERS' AWARENESS OF SCIENTISTS IN THE FIELD OF ELECTRICITY/MAGNETISM <i>Meryem Görecek Baybars</i>
	A0297 - IMPROVEMENT THE ABILITY OF PRE-SERVICE TEACHERS' UNDERSTANDING AND USING OF EVIDENCE-BASED INFORMATION SOURCES IN SCIENCE TEACHING <i>Nail İlhan</i>

SESSION II: May 19, 2017 – Friday (13:30 – 15:00)

COMMITTEE 3 HALL	CHAIRS: M. Handan Gunes - Berat Ahi
	A0326 - WHAT IS HAPPENING TO QR CODES? IS GREEN CRESCENT WEEK BOARD ALIVE? <i>Ercan Pehlevan, Gülcan Çetin, Emine Büyükkol Köse, Kübra Kösal</i>
	A0329 - THE INVESTIGATION OF MIDDLE SCHOOL STUDENTS', WHO PARTICIPATED TO SCIENCE FAIRS, MOTIVATION AND INTEREST LEVELS RELATION TO SCIENCE <i>Olgun Han</i>
	A0301 - COMPARISON OF STUDY SHEET PREPARATION STATUSES OF PROSPECTIVE BIOLOGY AND MATHEMATICS TEACHERS <i>M. Handan Gunes, Rezan Yilmaz</i>
	A0172 - INVESTIGATION OF VARIOUS VARIABLES ABOUT PLANT ATTITUDES OF PRESERVICE PRESCHOOL TEACHERS <i>Berat Ahi, Gülbahar Güzel, Sibel Balci</i>
	A0174 - VALIDITY AND RELIABILITY OF ACHIEVEMENT TEST DEVELOPED IN REPRODUCTION, GROWTH AND DEVELOPMENT IN PLANTS AND ANIMALS <i>M.handan Güneş, Cahide Serdaroğlu</i>
	A0262 - DESIGNATION AND IMPELMANTATION OF AN EFFICIENT BOTANIC GARDEN VISIT IN ORDER TO RAISE PLANT AWARENESS AND ATTITUDE TOWARDS PLANTS <i>Funda Gül Iri Karadeniz, Emine Çil</i>

SESSION II: May 19, 2017 – Friday (13:30 – 15:00)

ROYAL HALL	CHAIRS: Sibel Açıřli - Emine Adadan
	A0223 - THE INVESTIGATION OF THE EFFECTS OF ROBOTIC-ASSISTED PRACTICES IN THE TEACHING OF RENEWABLE ENERGY SOURCES TO SCIENCE TEACHERS CANDIDATES <i>Sibel Açıřli</i>
	A0225 - THE INVESTIGATION OF THE EFFECTS OF ROBOTIC-ASSISTED PRACTICES IN TEACHING RENEWABLE ENERGY SOURCES TO SEVENTH-GRADE STUDENTS IN SECONDARY SCHOOL <i>Sibel Açıřli</i>
	A0234 - HOW DO SCHOOL RELATED VARIABLES EXPLAIN TURKISH STUDENTS' SCIENCE LITERACY? A HIERARCHICAL ANALYSIS USING PISA 2015 DATA <i>Ertuđrul Özdemir, Mustafa Cansiz, Nurcan Cansiz, Ulař Üstün</i>
	A0261 - THE EFFECT OF DRAMA SUPPORTED TEACHING ON UNIVERSITY STUDENTS' SUCCESS IN ELECTROSTATIC SUBJECT AND ATTITUDES TOWARDS THE DRAMA METHOD <i>Ayře Gül (çirkinođlu) řekerciođlu</i>
	A0263 - AN INTERACTIVE STUDENT EXHIBIT ON CLIMATE CHANGE <i>Sevil Akaygun, Emine Adadan</i>
	A0274 - HOW DOES PRESCHOOL ATTENDANCE EXPLAIN STUDENTS' SCIENCE SELF-EFFICACY? A COMPARISON OF TURKEY, FINLAND AND SINGAPORE USING PISA 2015 DATA <i>Nurcan Cansiz, Ulař Üstün, Mustafa Cansiz, Ertuđrul Özdemir</i>

SESSION III: May 19, 2017 – Friday (15:30 – 17:00)

PIRENE HALL	CHAIRS: Ayfer Alper - Tahsin Ođuz Bařokçu
	A0105 - EIGHTH GRADE STUDENTS' GRAPH COMPREHENSION AND CONSTRUCTION ABILITY WHEN SOLVING STATISTICAL PROBLEMS <i>Nadide Yilmaz</i>
	A0271 - GENERATION STUDY OF PISA MATHS PROFICIENCY LEVELS IN TURKISH 6TH GRADE STUDENTS <i>Tahsin Ođuz Bařokçu, Simge Ceylan</i>
	A0309 - CLASSIFICATION OF SECONDARY SCHOOL STUDENTS IN TERMS OF THEIR LEVELS OF HAVING PISA MATHEMATICAL COMPETENCIES THROUGH COGNITIVE DIAGNOSTIC MODELS: A LONGITUDINAL REAL DATA STUDY <i>Tahsin Ođuz Bařokçu, Arzu Canpolat, Erhan Arda</i>
	A0046 - EVALUATION OF MATHEMATICAL GAMES IN TERMS OF EDUCATIONAL ASPECTS: ANDROID AND WEB APPLICATIONS <i>Ayfer Alper, Tuđçe Gençođlu</i>
	A0047 - PROPERTIES AND EVALUATION OF MATHEMATICS ARITHMETIC OPERATION GAMES <i>Ayfer Alper, Ayře Tekin</i>
	A0058 - MIDDLE SCHOOL STUDENTS' MATHEMATICS TEST ANXIETY <i>Ismail řan, Kevser Dulkadir</i>

SESSION III: May 19, 2017 – Friday (15:30 – 17:00)

EFES HALL	CHAIRS: Sevil Akaygun - Hasene Esra Yildirim
	A0294 - INVESTIGATING MIDDLE SCHOOL STUDENTS' PERCEPTIONS ABOUT SCIENCE LEARNING ENVIRONMENTS IN THE CONTEXT OF INQUIRY-BASED INSTRUCTION ON GLOBAL CLIMATE CHANGE <i>Emine Adadan, Sevil Akaygun</i>
	A0305 - DETERMINATION OF COGNITIVE STRUCTURE OF SCIENCE, PHYSICS, CHEMISTRY AND BIOLOGY TEACHER CANDIDATES ABOUT "ENERGY" CONCEPT THROUGH WORD ASSOCIATION TEST <i>Hasene Esra Yildirim, Tuğba İşıktaş, Ayşenur Yildirim</i>
	A0311 - CONCEPTUALISATION OF PHYSICS CONSTRUCTS IN HEALTH SCIENCE PEDAGOGY: A CASE STUDY OF MEDICAL IMAGING STUDENTS' UNDERSTANDING OF FORCES AND MOTION <i>Mark Marais</i>
	A0064 - EXAMINATION OF HIGH SCHOOL STUDENTS' ENVIRONMENTAL ATTITUDES ACCORDING TO THEIR LOGICAL/ INTUITIVE THINKING AND EMOTIONAL INTELLIGENCE <i>Canan Koçak Altundağ, Ayşem Seda Önen</i>
	A0355 - ANALYSIS OF ARGUMENTATION DEVELOPMENT IN LABORATORY APPLICATIONS BASED ON THE ARGUMENTATION BASED SCIENCE INQUIRY APPROACH <i>Tufan Inaltekin, Hakan Akcay</i>
	A0270 - THE ROLE OF METACOGNITIVE GUIDANCE ON PRE-SERVICE TEACHERS' EMOTIONS DURING PRACTICUM <i>Zubeyde Demet Kirbulut, Esen Uzuntiryaki-kondakci</i>

SESSION III: May 19, 2017 – Friday (15:30 – 17:00)

COMMITTEE 1 HALL	CHAIRS: Nuri Nakiboğlu - Canan Nakiboğlu
	A0069 - DETERINATION OF SECONDARY SCHOOL STUDENTS' ALTERNATIVE CONCEPTIONS ABOUT IONIZATION ENERGY <i>Canan Nakiboğlu, Halit Cosgun</i>
	A0123 - PRE-SCHOOL CHILDRENS' VIEWS WITH REGARD CONCEPTIONS ON HEAT AND TEMPERATURE <i>Meltem Duran</i>
	A0136 - INVESTIGATOIN STUDENTS OF MENTAL MODELS AND METAPHORS TWORDS ATOMIC CONCEPT <i>Halit Kiriktaş, Sinan Eslek, Mehmet Şahin</i>
	A0142 - INVESTIGATION OF UNIVERSITY CHEMISTRY STUDENTS' VIEWS ABOUT FLOW DIAGRAM USAGE IN ANALYTICAL CHEMISTRY LABORATORY I <i>Nuri Nakiboğlu, Fahrettin Filiz, Canan Nakiboğlu</i>
	A0298 - DETERMINING OF EIGHTH GRADE STUDENTS' UNDERSTANDING OF SOLUTION CONCEPT BY USING CONTEXT BASED CONCEPT CARTOONS <i>Nail İlhan, Emre Harun Karaaslan</i>
	A0306 - INVESTIGATION OF HIGH SCHOOL STUDENTS' UNDERSTANDING ABOUT ELECTROCHEMISTRY CONCEPTS <i>Nuri Nakiboğlu, Canan Nakiboğlu</i>

SESSION III: May 19, 2017 – Friday (15:30 – 17:00)

ROYAL HALL	CHAIRS: Esra Balgalmış - Tuğba Uygun
	A0162 - SUPPORTING PRE-SERVICE MATHEMATICS TEACHERS MAKE SENCE OF GRAPHS AND NORMAL DISTRIBUTION WITH TINKER PLOTS SOFTWARE <i>Esra Balgalmış</i>
	A0242 - SEMIOTIC ANALYSIS OF QUESTIONS OF HIGHER EDUCATION TRANSITION EXAMINATION (YGS) <i>Huriye Ateşcan, Tuğba Uygun</i>
	A0243 - PRESERVICE MIDDLE SCHOOL MATHEMATICS TEACHERS' REASONING ON STUDENTS' KNOWLEDGE OF LEARNING STATISTICS <i>Huriye Ateşcan, Tuğba Uygun</i>
	A0254 - AN INVESTIGATION OF MIDDLE SCHOOL STUDENTS' ROTATION OF TWO DIMENSIONAL GEOMETRIC FIGURES <i>Nilüfer Zeybek, Esra Demiray</i>
	A0288 - INVESTIGATION OF PRE-SERVICE MIDDLE SCHOOL MATHEMATICS TEACHERS' SPATIAL ORIENTATION ABILITY <i>Nilüfer Zeybek</i>
	A0250 - SOCIAL MEDIA AS A SCAFFOLDING TOOL: EXAMPLE OF FACEBOOK MATHEMATICS GROUP <i>Esra Yemenli, Abdulkadir Erdoğan</i>

SESSION IV: May 20, 2017 – Saturday (08:30 – 10:00)

PIRENE HALL	CHAIRS: Zeki Aksu - Pinar Güner
	A0200 - ASSESSMENT OF MATHEMATICS TEXTBOOKS' QUESTIONS ACCORDING TO THE COGNITIVE PROCESS LEVELS OF BLOOM'S REVISED TAXONOMY <i>Ümit Kul, Zeki Aksu</i>
	A0216 - PRE-SERVICE MIDDLE SCHOOL MATHEMATICS TEACHERS' KNOWLEDGE OF DISTRIBUTION FOR DAILY LIFE DATA <i>Nadide Yılmaz, I. Elif Yetkin Özdemir</i>
	A0221 - WHAT MAKES A PROOF, CONVINCING PROOF? <i>Fatma Nur Aktaş, Gönül Yazgan-sağ, Esra Selcen Yakici-topbaş, Elçin Emre-akdoğan, Ziya Argün</i>
	A0231 - PRESERVICE MIDDLE SCHOOL MATHEMATICS TEACHERS' CONCEPTION OF AUXILIARY ELEMENTS OF TRIANGLES <i>Tuğba Uygun, Didem Akyüz</i>
	A0232 - DIFFERENCES BETWEEN PRESERVICE MIDDLE SCHOOL MATHEMATICS TEACHERS' PROOF LEVELS ABOUT CIRCLES WITH CAND WITHOUT ARGUMENTATIONS <i>Tuğba Uygun, Pinar Güner</i>
	A0284 - A CONTENT ANALYSIS OF FREE BOARDING AND SCHOLARSHIP EXAMINATION (FBSE) MATHEMATICS ITEMS <i>Gülşah Başol, Esra Balgalmış, Mukaddes Inan</i>

SESSION IV: May 20, 2017 – Saturday (08:30 – 10:00)

EFES HALL	CHAIRS: Khalid Rabayah - Zoltan Zakota
	A0126 - DEVELOPING 21ST CENTURY CHEMISTRY LEARNING THROUGH DESIGNING DIGITAL GAMES <i>Ah-nam Lay, Kamisah Osman</i>
	A0150 - THE POTENTIAL OF DIFFERENT MODES OF DELIVERY IN THE BLENDED LEARNING ENVIRONMENT IN HIGHER EDUCATION: A REVIEW PAPER <i>Reem Baragash, Fauzi M Wan</i>
	A0246 - INFORMATION TECHNOLOGY USE BY SCHOOLS VS. ACADEMIC ACHIEVEMENTS AS MEASURED BY TIMMS INTERNATIONAL EXAMS <i>Khalid Rabayah</i>
	A0247 - ARAB LEARNERS' CULTURAL VALUES AND THEIR INTERFERENCE WITH E-LEARNING <i>Khalid Rabayah</i>
	A0316 - WHY DO WE NEED TO TEACH INFORMATION AND COMMUNICATION TECHNOLOGIES IN HIGHER EDUCATION? <i>Zoltan Zakota</i>
	A0092 - A TRAINING GAME DESIGN FOR HELPING THE CODING LEARNING PROGRAM OF THE COMPUTER DEPARTMENT STUDENTS <i>Sakir Tasdemir, Davut Alan</i>

SESSION IV: May 20, 2017 – Saturday (08:30 – 10:00)

COMMITTEE 1 HALL	CHAIRS: Yılmaz Mutlu - İsmail Şan
	A0008 - INTRODUCING ONE OF CONSTRUCTIVIST APPROACHES TO PRESERVICE PRIMARY TEACHERS: THEORY OF DIDACTIC SITUATIONS <i>Mustafa Gök</i>
	A0049 - WE DON'T TEACH MATHEMATICS BEFORE OUR STUDENTS LEARNING TO READ AND WRITE <i>Yılmaz Mutlu</i>
	A0011 - THE MATHEMATICS OF LEARNING: LEARNING FORMULAS OF TEACHER CANDIDATES <i>İsmail Şan</i>
	A0013 - EFFECT OF TRADITIONAL METHODS IN NUMBERS LEARNING DOMAIN ON ACADEMIC ACHIEVEMENT: A META-ANALYSIS STUDY <i>Ali Kış, İsmail Şan</i>
	A0014 - STUDENT METAPHORS OF MATHEMATICS TEACHER CANDIDATES' <i>İsmail Şan, Ali Kış</i>
	A0341 - DISCOVERY OF THE POLYGONS AND THE SUM OF THE INTERIOR ANGLES OF A POLYGON BY THE LAKOTASIAN DISCOVERY STRATEGY: A CASE STUDY <i>Ayhan Aksoy, Kemal Koç</i>

SESSION IV: May 20, 2017 – Saturday (08:30 – 10:00)

COMMITTEE 3 HALL	CHAIRS: Recep Dünder - Ayşegül Şeyihoğlu
	A0016 - PERCEPTIONS OF TEACHING STAFF RELATED TO TECHNOLOGICAL HARDWARE ADEQUACY OF UNIVERSITIES IN TURKEY <i>Erol Koçoğlu</i>
	A0022 - EXAMINING INTERNET ADDICTION LEVELS OF PRIMARY 4TH CLASS STUDENTS <i>Hasan Aydemir, Mustafa Çinar, Yalçın Karali</i>
	A0040 - ON MULTIPLE INTELLIGENCE APPLICATIONS IN TURKEY EVALUATION OF TECHNOLOGY USAGE <i>Erol Koçoğlu, Elif Meral</i>
	A0041 - TEACHER COMPETENCIES RELATED TO THE USE OF TECHNOLOGY IN HISTORY TEACHING <i>Recep Dünder</i>
	A0065 - THE THINKING STYLES OF SECONDARY SCHOOL STUDENTS AND THEIR INTERNET USAGE <i>Canan Koçak Altundağ, Fatma Alkan, Murat Altundağ</i>
	A0099 - VISUAL DESIGN IN GEOGRAPHY TEXTBOOKS <i>Şuayip Şeyihoğlu, Ayşegül Şeyihoğlu</i>

SESSION IV: May 20, 2017 – Saturday (08:30 – 10:00)

COMMITTEE 4 HALL	CHAIRS: Fatma Gülay Kirbaşlar - M. Diyaddin Yaşar
	A0108 - INVESTIGATION ON THE USE OF MATERIALS IN PRE-SCHOOL TEACHER CANDIDATES IN SCIENCE EDUCATION COURSE <i>Meltem Duran</i>
	A0112 - THE VIEWS OF STUDENTS ON THE APPLICATIONS OF DIFFERENT COLLABORATIVE LEARNING METHODS IN GENERAL PHYSICS I COURSE <i>Nilüfer Okur Akçay, Kemal Doymuş</i>
	A0114 - A STUDY RELATED TO MIDDLE-SCHOOL STUDENTS' SCIENCE CURIOSITY <i>Gülendam Halimoğlu, Fatma Gülay Kirbaşlar</i>
	A0141 - META AND CONTENT ANALYSIS OF DISSERTATIONS RELATED TO BRAIN BASED LEARNING IN SCIENCE EDUCATION IN TURKEY <i>M. Diyaddin Yaşar, Veli Batdı</i>
	A0144 - SCIENCE IN OUR LIFE: SCIENCE WITH PHOTOGRAPHY <i>Şengül S. Anagün, Burcu Anılan, Hüseyin Anılan, Nurhan Atalay, Zeynep Kiliç</i>
	A0149 - INVESTIGATION OF DEVELOPING SKILLS IN LEARNING COURSE WITH CREATIVE DRAMA METHOD <i>Selman Tuncel, Mustafa Pehlivan, Seyit Ahmet Kiray</i>

SESSION IV: May 20, 2017 – Saturday (08:30 – 10:00)

ROYAL HALL	CHAIRS: Wajeeh Daher - Shaker Rasslan
	A0168 - THE VAN HIELE LEVELS OF GEOMETRIC THINKING AMONG EAST JERUSALEM MATHEMATICS TEACHERS <i>Shaker Rasslan, Daoud Afifi</i>
	A0170 - INVESTIGATING TEACHING PRACTICES FOR TEACHING ALGEBRAIC EXPRESSIONS WITHIN A MULTIPLE CASE STUDY <i>Dilek Girit, Didem Akyüz</i>
	A0175 - THE VAN HIELE LEVELS OF GEOMETRIC UNDERSTANDING UPON EAST JERUSALEM JUNIOR HIGH SCHOOL STUDENT <i>Mahmoud Hadia, Shaker Rasslan</i>
	A0207 - LBM: PERCEPTIONS HELD BY 8TH GRADERS PROSPECTIVE GEOMETRIC OPTICS STUDENTS STUDYING AT EAST JERUSALEM SCHOOLS <i>Kamel Hashem, Ziad Qabaja, Mohsen Adas</i>
	A0215 - THE EFFECT OF META-COGNITION ON POSITIONING AND EMOTIONS IN AUTHENTIC MATHEMATICAL ACTIVITIES <i>Wajeeh Daher, Ahlam Anabousy</i>
	A0237 - MIDDLE SCHOOL TEACHERS' MATHEMATICAL KNOWLEDGE WITHIN THE PRACTICES FOR TEACHING EXPONENTS: A MULTIPLE CASE STUDY <i>Dilek Girit, Fadime Ulusoy</i>

SESSION V: May 20, 2017 – Saturday (13:30 – 15:00)

PIRENE HALL	CHAIRS: Fatma Gülay Kirbaşlar - Kemal Izci
	A0115 - A STUDY TOWARDS SCIENCE TEACHERS' TEACHER SELF-EFFICACY LEVELS <i>Fatma Gülay Kirbaşlar, Duygu Yavuz, Okan Sibiç</i>
	A0119 - PRESERVICE SCIENCE TEACHERS' AWARENESS TOWARDS THE PLACE OF SOCIO-SCIENTIFIC ISSUES IN NATIONAL SCIENCE EDUCATION CURRICULUMS <i>Okan Sibiç, Mustafa Sami Topçu</i>
	A0120 - PRESERVICE SCIENCE TEACHERS' VIEWS TOWARDS THE CONTRIBUTIONS OF SOCIO-SCIENTIFIC ISSUES TO TEACHERS, STUDENTS, AND SOCIETY <i>Mustafa Sami Topçu, Okan Sibiç</i>
	A0185 - WHAT NATURE OF SCIENCE SHOULD BE TAUGHT TO STUDENT SCIENCE TEACHERS? SCIENTISM IN CHINESE SCIENCE TEACHER EDUCATORS' CONCEPTIONS <i>Zhi Hong Wan</i>
	A0139 - PROSPECTIVE SCIENCE TEACHERS' CONCEPTION RELATED TO ALTERNATIVE ASSESSMENT APPROACHES <i>M. Diyaddin Yaşar, Banuçiçek Seyhan, Mürşet Çakmak</i>
	A0157 - REVIEW OF STUDIES RELATED TO SCIENCE TEACHERS' ASSESSMENT LITERACY: TURKISH CASE <i>Kemal Izci, Metin Şardağ</i>

SESSION V: May 20, 2017 – Saturday (13:30 – 15:00)

EFES HALL	CHAIRS: Ilker Türker - Banu Uslu
	A0177 - RESEARCHER NETWORK OF ICEMST CONFERENCE SERIES <i>Ilker Türker, Rafet Durgut, Oğuz Findik</i>
	A0181 - COMPARISON OF REAL VS. ONLINE SOCIAL FRIENDSHIP NETWORKS OF VOCATIONAL SCHOOL STUDENTS <i>Ilker Türker, Mustafa Aksin</i>
	A0336 - APPLICATION INNOVATIVE AND EDUCATIONAL TECHNOLOGIES IN HIGH EDUCATION <i>Sholpan Sakipova</i>
	A0344 - A STUDY ON THE RELATIONSHIP BETWEEN VOCATIONAL HIGH SCHOOL STUDENTS' PROBLEM-SOLVING SKILLS AND THEIR ATTITUDES TOWARDS COMPUTER PROGRAMMING <i>Oğuz Yılmaz, Ahmet Oğuz Aktürk</i>
	A0348 - ADVANTAGES OF USING TECHNOLOGY WITH YOUNG LEARNERS OF ENGLISH <i>Ece Sarigül, Banu Uslu</i>
A0354 - INVESTIGATING ENGLISH TEACHERS' BELIEFS AND ATTITUDES TOWARDS TECHNOLOGY: ARE THEY TECH SAVVY ? <i>Banu Uslu, Ece Sarigül</i>	

SESSION V: May 20, 2017 – Saturday (13:30 – 15:00)

COMMITTEE 1 HALL	CHAIRS: Ayşegül Şeyihoğlu - Rezan Yılmaz
	A0010 - AN ECOLOGICAL ANALYSIS OF THE TURKISH MATHEMATICS CURRICULUM CHANGES RELATED TO THE TEACHING OF FUNCTION CONCEPT <i>Mustafa Gök, Abdulkadir Erdoğan</i>
	A0063 - LESSON PLANNING PROFILES ABOUT THE USE OF MATERIALS PREPARED BY PROSPECTIVE MATHEMATICS AND BIOLOGY TEACHERS <i>Rezan Yılmaz, Munise Handan Gunes</i>
	A0084 - GEMS AND ITS REFLECTIONS TO GEOGRAPHY TEACHING <i>Ayşegül Şeyihoğlu</i>
	A0140 - THE EFFECT OF DESIGN-BASED FETEMM ACTIVITIES ON PRE-SERVICE SCIENCE TEACHERS' INTEGRATED FETEMM TEACHING TENDENCIES AND FETEMM ATTITUDES <i>Mehmet Şahin, Halit Kiriktaş, Sinan Eslek</i>
	A0180 - INTEGRATED PROGRAMS FOR SCIENCE AND MATHEMATICS: REVIEW OF RELATED LITERATURE <i>Kürşat Kurt, Mustafa Pehlivan</i>
A0350 - EXAMINING THE SELF-SUFFICIENCY LEVELS OF CLASS TEACHER CANDIDATES ON TEACHING THE TOPICS IN PROMARY SCHOOL MATHEMATICES PROGRAM ACCORDING TO THEIR GRADES <i>Güler Çavuşoğlu, Nesrin Özsoy</i>	

SESSION V: May 20, 2017 – Saturday (13:30 – 15:00)

COMMITTEE 2 HALL	CHAIRS: Zeki Aksu - Kamil Yurtkan
	A0017 - A MOBILE APPLICATION DESIGN EXTENSION FOR SPECIAL EDUCATION TO TEACH BASIC ARITHMETIC OPERATIONS <i>Hüseyin Göksu, Tolgay Karanfiller, Kamil Yurtkan</i>
	A0238 - TRENDS IN MASTER'S AND DOCTORAL THESIS IN TURKISH MATHEMATICS EDUCATION: 2012-2017 <i>Selcen Çalik Uzun, Zeki Aksu, Ümit Kul, Sedef Çelik</i>
	A0290 - AN INVESTIGATION OF MIDDLE SCHOOL MATHEMATICS TEACHERS' MISSION AND VISION EXPRESSIONS REGARDING TEACHING PROFESSION <i>Cemalettin Yildiz, Resul Göl, Adem Duru</i>
	A0257 - EXAMINING THE EFFECTS OF NAPIER'S BONES MATERIAL ON VISUALLY-IMPAIRED AND DYSCALCULIAC STUDENTS' MULTIPLICATION AND DIVISION ABILITIES <i>Elvan Başoççu</i>
	A0277 - TEACHER CANDIDATES' OPINIONS ON USING ONLINE APPLICATIONS IN MATHEMATICS EDUCATION: EXAMPLE OF DESMOS <i>Ali Özgün Özer, Ayten Erduran</i>
	A0280 - AN INVESTIGATION OF THE RELATIONSHIP BETWEEN VISUAL MATHEMATICS LITERACY SELF-EFFICACY PERCEPTIONS AND METACOGNITIVE READING COMPREHENSION AWARENESS <i>Zeki Aksu, Selcen Çalik Uzun, Sedef Çelik</i>

SESSION V: May 20, 2017 – Saturday (13:30 – 15:00)

COMMITTEE 3 HALL	CHAIRS: Umit Demiral - Murat Çetinkaya
	A0057 - THE EFFECT OF TEACHING THE ATOMIC STRUCTURE OF MATTERS BY CREATIVE DRAMAS TO THE ACHIEVEMENT OF STUDENT AT THE 6 TH CLASS SCIENCE AND TECNOLOGY LESSON IN PRIMARY SCHOOL <i>Selman Tuncel, Mustafa Pehlivan, Seyit Ahmet Kiray</i>
	A0062 - THE EFFECT OF INQUIRY-BASED SCIENCE ACTIVITIES ON PROSPECTIVE SCIENCE TEACHERS' SCIENTIFIC PROCESS SKILLS <i>Murat Çetinkaya</i>
	A0074 - THE INVESTIGATION OF THE RELATIONSHIP BETWEEN SCIENCE TEACHER CANDIDATES' RISK PERCEPTIONS WITH DECISION MAKING STRATEGIES <i>Umit Demiral, Hande Turkmenoglu</i>
	A0101 - THOUGHTS OF SCIENCE TEACHERS ABOUT SCIENCE EDUCATION FOR MAINSTREAMING STUDENTS <i>Kevser Köse, Seyit Ahmet Kiray</i>
	A0102 - THOUGHTS OF STUDENTS WITH NORMAL INTELLEGENGE ABOUT LEARNING SCIENCE WITH MAINSTREAMING STUDENTS <i>Kevser Köse, Seyit Ahmet Kiray</i>
	A0091 - EDUCATIONAL MODELS AND CURRICULUMS OF PHOTONICS FOR SUSTAINABLE DEVELOPMENT <i>Burcu Uğurlu, Altay Firat, Arif Sari</i>

SESSION V: May 20, 2017 – Saturday (13:30 – 15:00)

COMMITTEE 4 HALL	CHAIRS: Gülcan Çetin - Sabriye Seven
	A0330 - PERCEPTIONS OF HIGH SCHOOL STUDENTS ABOUT THEIR ENVIRONMENT OF TODAY AND FUTURE <i>Gülcan Çetin, Ebru Işık</i>
	A0332 - ELEMENTARY SCHOOL STUDENTS' VIEWS ABOUT THEIR ENVIRONMENTS BY DRAWING-WRITING TECHNIQUE <i>Gülcan Çetin, Ebru Işık</i>
	A0338 - DESIGN OF E-MATERIAL INCLUDING QR CODE APPLICATIONS FOR BIOLOGY EDUCATION <i>Kübra Kösal, Gülcan Çetin</i>
	A0345 - INVESTIGATION OF KNOWLEDGE LEVELS ABOUT GLOBAL WARMING AND GREENHOUSE EFFECT OF PRESERVICE TEACHERS <i>Şafak Uluçınar Sağır, Kayhan Bozğün</i>
	A0304 - EXAMINING THE EFFECT OF WRITING TO LEARN ACTIVITIES AND PEER EVALUATIONS ON LEARNING GENERAL PHYSICS I LABORATORY <i>Emre Yıldız, Gülşen Koçak, Sabriye Seven</i>
	A0340 - TEACHING VECTOR OPERATIONS WITH MULTIPLE REPRESENTATIONS <i>Kemal Koç, Ayhan Aksoy</i>

SESSION V: May 20, 2017 – Saturday (13:30 – 15:00)

ROYAL HALL	CHAIRS: Gülseren Karagöz-Akar - Farhad Balash
	A0324 - GENDERED MATHEMATICS CLASSROOMS IN NIGERIA PRIMARY SCHOOLS IN THE 21ST CENTURY <i>Maris Zinyahs, Farhad Balash</i>
	A0335 - DOES THE TYPE OF PROBLEM SOLVING QUESTIONS IMPACT TO THE EMERGENCE OF COGNITIVE UNITY? A CASE OF STUDENTS' MATHEMATICAL ARGUMENTATION <i>Zeni Rofiqoh</i>
	A0315 - USING THE DIENES METHOD IN TEACHING UPPER ALGEBRA TO CHILDREN <i>Zoltan Zakota, Edith Debrenti</i>
	A0273 - PRESERVICE MIDDLE SCHOOL MATHEMATICS TEACHERS' KNOWLEDGE ABOUT STUDENTS' MATHEMATICAL THINKING RELATED TO PERIMETER AND AREA <i>Pinar Güner, Didem Akyüz</i>
	A0279 - PROSPECTIVE MATHEMATICS TEACHERS' MAKING SENSE OF THE DECIMAL REPRESENTATION OF REAL NUMBERS AS RATIONAL NUMBER SEQUENCES THROUGH QUANTITATIVE REASONING <i>Mervenur Belin, Gülseren Karagöz-akar</i>
	A0333 - FIRST REFLECTIONS OF TEACHERS TO INTEGRATED TEACHING <i>Zerrin Doğança Küçük, Gürsu Aşık, Başak Helvacı, Mehmet Sencer Çorlu</i>

SESSION VI: May 20, 2017 – Saturday (15:30 – 17:00)

PIRENE HALL	CHAIRS: Kamisah Osman - Nyet Moi Siew
	A0244 - INVESTIGATION OF INTERACTION PCK COMPONENTS OF PRE-SERVICE SCIENCE TEACHERS IN STEM LESSON PLANS <i>Burak Çaylak, Jale Çakiroğlu, Özgül Yılmaz Tüzün</i>
	A0302 - STEM ETHICS: ACADEMIC INTEGRITY AND ETHICAL CONCERNS OF TEACHERS' <i>Başak Helvacı, Mehmet Sencer Çorlu, Gürsu Aşık, Zerrin Doğança Küçük</i>
	A0325 - TEACHERS' VIEWS ABOUT IMPLEMENTING AN ENGINEERING-FOCUSED THEME WITHIN AN EARLY STEM PROGRAM <i>Zerrin Doğança Küçük, Gürsu Aşık, Şefika Girgin, Mehmet Sencer Çorlu</i>
	A0334 - A QUANTITATIVE ANALYSIS OF TEACHER PERCEPTIONS ON COLLABORATION FOR STEM INTEGRATION <i>Gürsu Aşık, Esma Baş, Kübra Türe, İrem Türkmen, M. Sencer Çorlu</i>
	A0138 - EFFECT OF STEM-5E LEARNING CYCLE (AM-STEM KIDS MODULE) IN FOSTERING NOBLE VALUES AMONG ELEMENTARY SCHOOL CHILDREN <i>Nurazidawati Mohamad Arsad, Kamisah Osman, Mohamed Amin Embi</i>
	A0110 - INTEGRATING STEM IN AN ENGINEERING DESIGN PROCESS: THE LEARNING EXPERIENCE OF RURAL SECONDARY SCHOOL STUDENTS IN AN OUTREACH CHALLENGE PROGRAM <i>Nyet Moi Siew</i>

SESSION VI: May 20, 2017 – Saturday (15:30 – 17:00)

EFE HALL	CHAIRS: Feral Ogan Bekiroğlu - Sibel Demir Kaçan
	A0245 - INVESTIGATION OF SECONDARY SCHOOL STUDENTS' COMPETENCIES REGARDING 21ST CENTURY SKILLS AND ETHICAL USE OF IT <i>Canan Koçak Altundağ, Ayşem Seda Önen, Murat Altundağ</i>
	A0253 - COMPARISON OF STUDENTS' LEARNING AND ATTITUDE IN TECHNOLOGY SUPPORTED AND LABORATORY BASED ENVIRONMENTS <i>Feral Ogan Bekiroğlu, Onur Oymak</i>
	A0347 - SELF EFFICACY AS MEDIATOR BETWEEN LEARNING AND BEHAVIOUR AMONG IN-SERVICE SCIENCE TEACHERS <i>Natrah Mohamad, Kamisah Osman, Jamil Ahmad</i>
	A0018 - INVESTIGATING CHANGES IN THE QUALITY OF SCIENCE TEACHERS' ARGUMENTATION ABOUT EARTHQUAKE ENGINEERING <i>Baki Cavlazoglu, Carol Stuessy</i>
	A0323 - ETHICAL ISSUES IN ENGINEERING EDUCATION <i>Ameneh Alipour, Farhad Balash</i>
	A0327 - THE EVALUATION OF THE MATERIALS DEVELOPED BY TEACHER CANDIDATES: WITH THE PERSPECTIVE OF RESEARCHER, PEER AND SELF-EVALUATION <i>Sibel Demir Kaçan, M.handan Güneş</i>

SESSION VI: May 20, 2017 – Saturday (15:30 – 17:00)

COMMITTEE 1 HALL	CHAIRS: Yilmaz Mutlu - Neslihan Şahin
	A0054 - FIRST-YEAR-MIDDLE SCHOOL STUDENTS' MODELING PROCESSES: TAXI PROBLEM <i>Neslihan Şahin, Ali Eraslan</i>
	A0056 - A STUDY ON REPRESENTATIONS PLACED IN THE MIDDLE SCHOOL MATHEMATICS TEXTBOOKS <i>Lütfi Incikabi, Abdullah Çağrı Biber, Abdulkadir Tuna, Samet Korkmaz</i>
	A0293 - AN INVESTIGATION OF HIGH SCHOOL STUDENTS' CONJECTURING PROCESSES <i>Adem Duru, Resul Göl, Osman Birgin, Cemalettin Yıldız</i>
	A0059 - MODELING EXPERINCES OF MIDDLE-SCHOOL STUDENTS: HOLIDAY PROBLEM <i>Neslihan Şahin, Ali Eraslan</i>
	A0088 - PROSPECTIVE TEACHERS OF MATHEMATICS WERE ASKED TO; IS THERE A ROYAL ROAD TO MATHEMATICS? <i>Yilmaz Mutlu</i>

SESSION VI: May 20, 2017 – Saturday (15:30 – 17:00)

COMMITTEE 2 HALL	CHAIRS: Zeki Aksu - Ceylan Şen
	A0258 - PRESERVICE MATHEMATICS TEACHERS' CONCEPTUAL KNOWLEDGE OF BINARY OPERATION <i>Zeki Aksu, Alper Cihan Konyalioğlu, Ümit Kul</i>
	A0055 - A RESEARCH ON THE ARTICLES PUBLISHED IN KASTAMONU UNIVERSITY EDUCATION JOURNAL <i>Lütfi Incikabi, Samet Korkmaz, Perihan Ayanoğlu, Feyza Aliustaoğlu, Nurcan Tekin</i>
	A0276 - AN ANALYSIS OF THE INFLUENCE OF INQUIRY BASED MATHEMATICS INSTRUCTION ON STUDENTS' SKILLS: A CASE OF RATIO AND PROPORTION SUBJECT <i>Z. Sonay Ay, Ceylan Şen</i>
	A0285 - HOW SIXTH AND SEVENTH GRADE STUDENTS SOLVE NON-ROUTINE PROBLEMS? <i>Arda Kerküt, Perihan Dinç Artut</i>
	A0070 - A REVIEW OF RESEARCH ON THE MISCONCEPTIONS IN MATHEMATICS EDUCATION <i>Yasin Ay</i>
A0164 - A REVIEW OF STUDIES ON TECHNOLOGY SUPPORTED MATHEMATICS INSTRUCTION IN TURKEY <i>Yasin Ay</i>	

SESSION VI: May 20, 2017 – Saturday (15:30 – 17:00)

COMMITTEE 3 HALL	CHAIRS: Serhat Kocakaya - Sinan Erten
	A0015 - PRE-SERVICE TEACHERS' VIEWS ON PLANNING AND IMPLEMENTING STEM ACTIVITIES <i>Serhat Kocakaya, Ömer Ensari</i>
	A0019 - STUDENTS' OPINIONS ABOUT GROUP STUDIES IN OUT-OF-SCHOOL STEM ACTIVITIES <i>Serhat Kocakaya, Nurda Ulfer</i>
	A0093 - NOT STEM EDUCATION ENVIRONMENT FRIENDLY FETEMM EDUCATIONAL EVENT EXAMPLES <i>Sinan Erten</i>
	A0201 - PROJECT BASED LEARNING ACTIVITIES INTEGRATED STEM IN SCIENCE LABORATORY <i>Gamze Karaer, Ersin Karademir, Özden Tezel</i>
	A0275 - AN ANALYSIS OF SCIENCE AND ARTS CENTER (BILSEM) EDUCATION PROCESS FOR GIFTED AND TALENTED STUDENTS IN TERMS OF STEM <i>Ceylan Şen, Seyit Ahmet Kiray, Z. Sonay Ay</i>
	A0331 - THE VIEWS OF SEVENTH GRADE STUDENTS TOWARDS STEM <i>Riza Başaran</i>

SESSION VI: May 20, 2017 – Saturday (15:30 – 17:00)

ROYAL HALL	CHAIRS: Sonnur Işitan - Meltem Kurt Pehlivanoğlu
	A0307 - DEVELOPMENTAL SEQUENCE OF COUNTING PRINCIPLES USED BY PRESCHOOL CHILDREN <i>Mesut Saçkes, Sonnur Işitan, Kerem Avci</i>
	A0308 - COUNTING ERRORS MADE BY PRESCHOOL CHILDREN IN RATIONAL COUNTING <i>Sonnur Işitan, Mesut Saçkes, Kerem Avci</i>
	A0130 - SOLUTION OF SIMPLE GEOMETRY QUESTIONS USING IMAGE PROCESSING TECHNIQUES ON THE ANDROID PLATFORM: SMART PHONE APPLICATION <i>Meltem Kurt Pehlivanoğlu, Nevcihan Duru, Halit Gümüş</i>
	A0346 - EFFECT OF PROBLEM SOLVING TRAINING ON 7TH GRADERS' BRAIN HEMISPHERIC DOMINANCE <i>Gizem Yapar Söğüt, Yeliz Yazgan</i>
	A0313 - DESIGNING OUT-OF-CLASS MODELING IMPLEMENTATIONS AND ITS EXAMPLE <i>Ali Özgün Özer, Esra Bukova Güzel</i>
	A0158 - TREATING THE FALLING BODIES PHENOMENON IN MODERN PHYSICS LESSON WITH DIALOGICAL DISCOURSE LINE <i>Numan Bademli, Seyit Ahmet Kiray</i>

SESSION VII: May 20, 2017 – Saturday (17:00 – 19:00)

PIRENE HALL	CHAIRS: Volodymyr Sulyma - Yakiv Bereznytskyy
	A0021 - GUIDELINES FOR TRAINING OF PRACTICAL SKILLS IN MEDICINE <i>Volodymyr Sulyma, Olena Sulima</i>
	A0025 - SYNDROME PRINCIPLE OF DIAGNOSTICS – MODERN PRINCIPLE IN EDUCATION <i>Olena Sulima, Volodymyr Sulyma</i>
	A0038 - TRAINING FOR IMPLEMENTATION OF MANIPULATION FOR THE TREATMENT OF EXTRAINTESTINAL MANIFESTATIONS OF CROHN'S DISEASE <i>Volodymyr Sulyma, Olena Sulima</i>
	A0042 - SURGERY: TEXTBOOK FOR STUDENTS OF HIGHER MEDICAL EDUCATIONAL INSTITUTIONS <i>Yakiv Bereznytskyy, Volodymyr Sulyma, Olena Sulima</i>
	A0048 - FIRST YEAR NURSING STUDENTS' COPING STRATEGIES IN STRESSFUL CLINICAL PRACTICE SITUATIONS <i>Iwona Bodys-cupak, Anna Majda, Justyna Skowron, Joanna Zalewska-puchala, Aneta Trzcńska</i>
	A0342 - INVESTIGATING THE EFFECTIVENESS OF A SKILLS-BUILDING INTERVENTION TO REDUCE STRESS AND ANXIETY AND INCREASE CONFIDENCE, FOCUS AND SUBJECTIVE WELL-BEING AMONG UNIVERSITY STUDENTS <i>Mubeena Nowrung, Mo Nowrung</i>

SESSION VII: May 20, 2017 – Saturday (17:00 – 19:00)

EFES HALL	CHAIRS: Behiye Akçay - Mustafa Çakır
	A0169 - THE EFFECT OF BRAIN-BASED LEARNING ON STUDENTS' METACOGNITIVE AWARENESS <i>Behiye Akçay, Sibel Adigüzel, Hilal Çağap, Rüveyda Yavuz</i>
	A0195 - SECONDARY SCIENCE TEACHERS' ASSESSMENT LITERACY: A LITERATURE REVIEW STUDY <i>Kemal Izci</i>
	A0212 - BOTH LASTING AND TRANSLATED NATURE OF SCIENCE UNDERSTANDINGS. IS IT REALLY POSSIBLE?: A COLLABORATIVE INTERVENTION BY MEANS OF INSTRUCTIONAL PLANNING WITHIN HIGHLY-CONTEXTUALIZED EXPLICIT-REFLECTIVE NATURE OF SCIENCE INSTRUCTION <i>Ümit Duruk, Abuzer Akgün, Betül Kiliç</i>
	A0213 - 360 DEGREE FEEDBACK: A HOLISTIC APPROACH TO THE INTERACTION OF SELF, PEER, AND TEACHER ASSESSMENT IN A COLLABORATIVE LEARNING PROCESS <i>Abuzer Akgün, Ümit Duruk, Gülден Akdağ Gürsoy, Betül Kiliç</i>
	A0240 - EXAMINATION OF PRE-SERVICE PHYSICS TEACHERS' TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE AND ITS COMPONENTS <i>Feral Ogan-bekiroglu, Ozge Krabuz</i>
	A0154 - EVOLUTION TEACHING SELF EFFICACY SCALE: VALIDITY AND RELIABILITY STUDY <i>Sibel Inan, Serhat Irez, Çiğdem Han-tosunoğlu, Mustafa Çakır</i>
	A0159 - SCIENCE TEACHERS AS SCENARIO DEVELOPERS FOR PROBLEM-BASED LEARNING <i>Mustafa Çakır, Hakan Akçay</i>
	A0360 - COMPARISON OF ACHIEVEMENTS OF DAYTIME AND EVENING CLASS OF MACHINE DEPARTMENT STUDENTS IN INFORMATION AND COMMUNICATION TECHNOLOGY COURSE <i>Yasin Akman</i>

SESSION VII: May 20, 2017 – Saturday (17:00 – 19:00)

COMMITTEE 1 HALL	CHAIRS: Cemil Aydođdu - Ayşegül Sağlam-Arslan
	A0248 - DETERMINING ASSERTIVENESS LEVEL OF HEALTH SERVICES VOCATIONAL SCHOOL STUDENTS <i>Hiçran Alkan, Perihan Akbaş, Nur Akcanca, Serap Aktemur Gürler, Hatice Biçakçı</i>
	A0328 - USE OF CONCEPT MAPS IN ELIMINATING MISCONCEPTIONS <i>Sibel Demir Kaçan, Fatma Şahin</i>
	A0236 - THE EFFECTS OF ACTIVITIES WITH 5E MODEL PREPARED AS PART OF CONTEXT BASED SCIENCE EDUCATION ON STUDENTS' ENVIRONMENTAL CONSCIOUSNESS <i>Cemil Aydođdu, Özge Sari Ay</i>
	A0299 - DETERMINATION OF THE PRE-SERVICE SCIENCE TEACHERS' KNOWLEDGE ON ELECTRIC CURRENT TYPES <i>Ümmü Gülsüm Durukan, Ayşegül Sağlam-Arslan</i>
	A0300 - EXAMINING PHYSICS EXPERIMENT REPORTS OF PRE-SERVICE SCIENCE TEACHERS AND DETERMINING THEIR POINT OF VIEW ABOUT EXPERIMENT REPORTS <i>Ümmü Gülsüm Durukan, Funda Hasançebi</i>
	A0303 - TEACHERS' AUTONOMY SUPPORT AND CLASSMATES' SUPPORT AS PREDICTORS OF STUDENTS' BASIC PSYCHOLOGICAL NEEDS IN SCIENCE <i>Münevver Subaşı, Gülşen Koçak, Yasemin Taş, Sündüz Yerdelen</i>
	A0251 - THE RELATIONSHIP BETWEEN THE SCIENTIFIC EPISTEMOLOGICAL BELIEFS AND THE PERCEPTIONS OF SCIENCE AND PSEUDOSCIENCE OF THE PRE-SERVICE SCIENCE TEACHERS <i>Munise Seçkin Kapucu, Zeynep Oymak</i>
	A0226 - THE EXAMINATION OF SCIENCE TEACHERS' ATTITUDES TOWARDS EDUCATIONAL RESEARCHES <i>Munise Seçkin Kapucu</i>

SESSION VII: May 20, 2017 – Saturday (17:00 – 19:00)

COMMITTEE 3 HALL	CHAIRS: Mehtap Yıldırım - Yalcin Durmusoglu
	A0060 - A STUDY ON COURSE EXPECTATION AND SATISFACTION OF AN ENGINEERING DEPARTMENT STUDENTS <i>Uğur Özcan, Serhan Kökhan, Ali Aykut Fidancı</i>
	A0131 - PRESERVICE TEACHERS' VIEWS ABOUT ENGINEERING DESIGN BASED SCIENCE EDUCATION <i>Mehtap Yıldırım, Hikmet Surmeli</i>
	A0202 - DETERMINATION OF LEARNING STYLE BASED ON GREGORC LEARNING STYLE MODEL: FACULTY OF ENGINEERING <i>Ali Ozdemir, Aysegul Alaybeyoglu, Kadriye Filiz Balbal</i>
	A0249 - INTEGRATION OF INNOVATIVE TECHNOLOGIES TO ENGINEERING EDUCATION: 3D PRINTERS <i>Yalcin Durmusoglu, Gazi Kocak</i>
	A0259 - A DIGITAL TO ANALOG VOLTAGE CONVERTER EXPERIMENT FOR MICROCONTROLLER COURSE <i>Şeyma İnçeli, Mehmet Yüksekaya</i>
	A0260 - TURBIDIMETER DESIGN EXPERIMENT FOR BIOMEDICAL ENGINEERING UNDERGRADUATES <i>Dilan İlke Kurt, Mehmet Yüksekaya</i>
	A0092 - A TRAINING GAME DESIGN FOR HELPING THE CODING LEARNING PROGRAM OF THE COMPUTER DEPARTMENT STUDENTS <i>Sakir Tasdemir, Davut Alan</i>
	A0203 - TEACHING QUADRANGLE SUBJECTS THROUGH MIND MAPPING TECHNIQUE <i>Ali Ozdemir, Aysegul Alaybeyoglu, Kadriye Filiz Balbal</i>

SESSION VII: May 20, 2017 – Saturday (17:00 – 19:00)

COMMITTEE 4 HALL	CHAIRS: Aysegul Alaybeyoglu - Ahmet Oğuz Aktürk
	A0061 - USE OF 3D PRINTERS IN EDUCATION <i>Serhan Kökhan, Uğur Özcan</i>
	A0204 - A DESIGN OF EDUCATIONAL COMPUTER GAME <i>Ali Ozdemir, Aysegul Alaybeyoglu, Kadriye Filiz Balbal</i>
	A0233 - DEVELOPING WEB BASED PHP LEARNING ENVIRONMENT <i>Özlem Tülek, Mehmet Emin Korkusuz</i>
	A0235 - PRESERVICE TEACHERS' METAPHORS ABOUT TECHNOLOGY <i>Ahmet Oğuz Aktürk, Gürbüz Çalişkan</i>
	A0252 - THE EFFECT OF THE WEB-BASED PROBLEM SOLVING METHOD IN THE COMPUTER PROGRAMMING COURSE ON ACADEMIC ACHIEVEMENT, ATTITUDE TOWARDS COMPUTER PROGRAMMING LEARNING AND COURSE INTEREST <i>Bariş Emlek, Ahmet Oğuz Aktürk</i>
	A0256 - DEVELOPMENT OF AN ATTITUDE SCALE TO ASSESS TEACHERS' ATTITUDES TOWARD EDUCATIONAL INFORMATION NETWORK (EBA) <i>Burcu Uğurlu, Gülden Gürsoy</i>
	A0205 - A DESIGN OF WEB BASED LEARNING ENVIRONMENT <i>Ali Ozdemir, Aysegul Alaybeyoglu, Kadriye Filiz Balbal</i>
	A0361 - COMPARISON OF SUCCESSES OF FIRST AND SECOND EDUCATION OF MACHINE DEPARTMENT STUDENTS IN FOREIGN LANGUAGE COURSE <i>Yasin Akman</i>

SESSION VII: May 20, 2017 – Saturday (17:00 – 19:00)

ROYAL HALL	CHAIRS: Zalpha Ayoubi - Kamisah Osman
	A0067 - THE COMPARISONS OF QUANTITATIVE AND QUALITATIVE PROBLEMS ON STUDENTS' PHYSICS ACHIEVEMENT <i>Tolga Gok</i>
	A0068 - THE EFFECT OF USING VIRTUAL LABORATORY ON GRADE 10 STUDENTS' CONCEPTUAL UNDERSTANDING OF DIRECT CURRENT ELECTRIC CIRCUIT AND THEIR ATTITUDES TOWARDS PHYSICS <i>Malak Abou Faour, Zalpha Ayoubi</i>
	A0071 - RESOURCES USED BY LEBANESE SECONDARY PHYSICS TEACHERS' FOR TEACHING ELECTRICITY: TYPES, OBJECTIVES AND FACTORS AFFECTING THEIR SELECTION <i>Bassel Chazbeck, Zalpha Ayoubi</i>
	A0073 - PROMOTING STUDENTS' PERCEPTIONS TOWARD RESPONSIBLE RESEARCH AND INNOVATION THROUGH INQUIRY-BASED INSTRUCTION ON NANOTECHNOLOGY <i>Emine Adadan, Sevil Akaygun</i>
	A0264 - TEACHING HONEYBEE TO PRE SCHOOL CHILDREN THROUGH MUSEUM VISIT AND MULTIPLE INTELLIGENCES TEACHING <i>Nihal Maccario</i>
	A0076 - TEACHING NANOTECHNOLOGY AS AN EXTRACURRICULAR ACTIVITY: VIEWS OF TEACHERS <i>Sevil Akaygun, Emine Adadan</i>
	A0094 - STUDENTS' GENERATED ANIMATION AND PROBLEM SOLVING IN PHYSICS LEARNING <i>Norazlilah Md. Nordin, Kamisah Osman</i>
	A0192 - THE COMPARISONS OF THE FRACTIONAL GAIN IN CONCEPTUAL LEARNING BY USING PEER INSTRUCTION <i>Tolga Gok</i>

POSTER PRESENTATIONS

May 18, 2017

CONFERENCE LOBBY HALL

A0020 - TEACHERS' PERCEPTIONS OF TYPES OF ERRORS IN MATHMATICS BETWEEN ARAB ORDINARY STUDENTS AND STUDENTS WITH LEARNING DISABILITIES

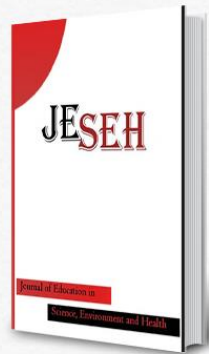
Nihad Massalha



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