

DEPT. OF INFORMATION SCIENCE & ENGINEERING

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EVENTS

ARTICLES

ACTIVITIES

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WEBINARS/ WORKSHOPS/EVENTS/ACTIVITIES



Dept of ISE organized a seminar on Opportunity for higher education in UK from SI-UK Company.

on 10th April 2023.

This was coordinated by Prof. Uzm sulthana.

Dept of ISE organized a webinar on Highflyer Club Membership on 13th April 2023.

UnTechEd | **ATRIA** | **HIGHFLIERS CLUB**

WEBINAR

HIGHFLYER CLUB MEMBERSHIP

UnTechEd invites you to an interactive introduction workshop on the Highflyer Club Program. This webinar will provide valuable insights on how the program can benefit you by helping you:

- Develop a Comprehensive, Cognitive, and Interpersonal Skill set
- Gain a deeper understanding of yourself and utilize it to advance your Career
- Obtain International Exposure through Foreign University Workshops & Internships
- Build a strong Professional Profile

Join us on
THURSDAY **13** APRIL 2023 | FROM **10 AM TO 11 AM**

to discover how the Highflyer Club Program can help you achieve your goals.

SPEAKERS

Shipra Sharma
Sr. EDM

Meghana Rajendra
Marketing Head

UnTechEd is the Strategic Learning Partner for Atria Institute of Technology.

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Ms. Uzma Sulthana & Mrs. Vijaylakshmi V
Assistant Prof, Dept of ISE,
Atria IT.

ATRIA INSTITUTE OF TECHNOLOGY
Department of Information science and Engineering

3 Days SDP

Recent Trends in Intelligent Internet of Things

Dr. Sreenivasa Setty
Professor, Dept. of CSE
BNMIT, Bengaluru

DATE : 19.04.2023 TO 21.04.2023
TIME : 10AM TO 5PM
VENUE : AC 501 AND 502

PATRON
Dr. Y Vijayakumar
Principal,
Atria IT

Dr. Shanthi Mahesh
Professor and Head, Department
of ISE, Atria IT

COORDINATOR
Mrs. Vijayalakshmi V & Mrs. Saritha P Pulli
Assistant Professor, Dept of ISE,
Atria IT.

Dept of ISE organized a 3 day SDP on “Recent Trends in Intelligent Internet of Things” from 19th to 21st April 2023.

ARTICLES

WIGIG - WIRELESS GIGABIT



Ms. Ananaya

THE WIGIG SPECIFICATION INCLUDES KEY CHARACTERISTICS TO MAXIMIZE PERFORMANCE, MINIMIZE IMPLEMENTATION COMPLEXITY AND COST, ENABLE COMPATIBILITY WITH EXISTING WI-FI AND PROVIDE ADVANCED SECURITY. KEY FEATURES INCLUDE:

1. SUPPORT FOR DATA TRANSMISSION RATES UP TO 7 GBPS; ALL DEVICES BASED ON THE WIGIG SPECIFICATION WILL BE CAPABLE OF GIGABIT DATA TRANSFER RATES.

2. DESIGNED TO SUPPORT LOW-POWER HANDHELD DEVICES SUCH AS CELL PHONES, AS WELL AS HIGHPERFORMANCE DEVICES SUCH AS COMPUTERS; INCLUDES ADVANCED POWER MANAGEMENT.

3. SUPPORT FOR BEAM FORMING, MAXIMIZING SIGNAL STRENGTH AND ENABLING ROBUST COMMUNICATION AT DISTANCES BEYOND 10 METERS.

4. SUPPORT FOR HIGH-PERFORMANCE, WIRELESS IMPLEMENTATIONS OF HDMI, DISPLAY PORT, USB AND PCS.

UTILIZING THE WIDER, LESS CONGESTED 60 GHZ UNLICENSED SPECTRUM, WIGIG IS A DIRECTIONAL, LINE-OF-SIGHT TECHNOLOGY THAT PROVIDES FOR MULTI-GIGABIT DATA TRANSFER CAPABILITY, SUPPORTING DATA RATES UP TO 8 GBPS. WIGIG COMPLEMENTS WI-FI CERTIFIED AC AND INCREASES NETWORK PERFORMANCE, RESULTING IN BETTER USE OF NETWORK RESOURCES AND RIVALING WIRED CONNECTIONS. LEVERAGING A NEW FREQUENCY BAND WITH WIGIG TECHNOLOGY ALLOWS FOR MAXIMUM THROUGHPUT, LOW LATENCY USER EXPERIENCES. THE KEY BENEFITS OF WIGIG ARE:

- HIGH PERFORMANCE:

ULTRA-WIDE CHANNELS IN THE MILLIMETER WAVE BANDS ENABLE FASTER DATA RATES UP TO 8 GBPS, OFFERING EXTREMELY HIGH TRANSMISSION SPEEDS AT RANGES UP TO 10 METERS (32.8 FEET).

- LOW LATENCY: THE 60 GHZ SPECTRUM PROVIDES GREATER BANDWIDTH TO ENABLE REAL-TIME DATA TRANSFER.

- POWER EFFICIENCY:

WIDE RANGE OF OPERATING MODES IN 60 GHZ PROVIDES FLEXIBILITY BETWEEN BATTERY LIFE AND PERFORMANCE MAKING IT SUITABLE FOR A WIDE ARRAY OF USAGES, SUCH AS HANDSETS AND VR HEADSETS.

- INCREASED CAPACITY:

BEAMFORMING REDUCES LINK INTERFERENCE, USING MULTIPLE ANTENNAS AND DIRECTIONAL COMMUNICATION TO OVERCOME SIGNAL DECAY AND ALLOW GREATER SPECTRAL REUSE.

- DYNAMIC SESSION TRANSFER:

DEVICES AND APPLICATIONS DYNAMICALLY SWITCH BETWEEN 2.4, 5, OR 60 GHZ DEPENDING ON APPLICATION AND ENVIRONMENTAL CONDITIONS.



VISION

TO DEVELOP COMPETENT PROFESSIONALS WITH STRONG FUNDAMENTALS IN INFORMATION SCIENCE AND ENGINEERING, INTERDISCIPLINARY RESEARCH AND ETHICAL VALUES FOR THE BETTERMENT OF THE SOCIETY.

MISSION

M1 - TO ESTABLISH A TRANSFORMATIONAL LEARNING AMBIENCE WITH GOOD INFRASTRUCTURE FACILITIES TO IMPART KNOWLEDGE AND THE NECESSARY SKILL SET TO PRODUCE COMPETENT PROFESSIONALS.

M2 - TO CREATE A NEW GENERATION OF ENGINEERS WHO EXCEL IN THEIR CAREER WITH LEADERSHIP/ENTREPRENEUR QUALITIES.

M3 - TO PROMOTE SUSTAINED RESEARCH AND INNOVATION WITH AN EMPHASIS ON ETHICAL VALUES.

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EDUCATIONAL OBJECTIVES OF THE PROGRAM(PEO)

PEO1: TO EXPERTISE IN PROBLEM ANALYSIS, SOLVING, DESIGN, DEVELOPMENT AND NECESSARY INFORMATION TO MEET TECHNICAL AND MANAGERIAL CHALLENGES.

PEO2: TO PURSUE INTERDISCIPLINARY RESEARCH AND HIGHER STUDIES WITH PROFOUND KNOWLEDGE ENRICHED WITH ACADEMICS AND INFORMATION TECHNOLOGY SKILLS.

PEO 3: TO EXCEL IN COMPETITIVE ENVIRONMENT TOWARDS LEADERSHIP AND LIFE-LONG LEARNING FOR A SUCCESSFUL PROFESSIONAL CAREER.

PROGRAM SPECIFIC OUTCOMES (PSO)

PSO1: ABLE TO FIND THE SOLUTIONS TO PROBLEMS USING PROGRAMMING LANGUAGES BY APPLYING THE SUITABLE DATA AND FILE STRUCTURES CONCEPT AND OBTAIN OPTIMAL PERFORMANCE THROUGH DESIGN AND ANALYSIS OF ALGORITHMS.

PSO2: ABLE TO WORK ON THE RECENT TECHNOLOGIES BY MANAGING AND ORGANIZING THE PROCESSED DATA FOR NEW GROWTH OF OPPORTUNITIES IN THE INDUSTRIES EXPLORING WEB DESIGNING AND SIMULATING THE REAL WORLD PROBLEMS.

PSO3: ABLE TO APPLY THE PRINCIPLES OF SOFTWARE ENGINEERING TO DEVELOP COMPUTATIONAL MODELS UNDER REALISTIC CONSTRAINTS AND ABILITY TO PROVIDE SOLUTIONS BASED ON THE EXPERTISE IN NETWORKING, DATABASE MANAGEMENT AND ENTREPRENEURSHIP TO THE VARIOUS NEEDS.

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