
Report on value-added courses "Green Computing", Department of Computer Application

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Wed, Jan 3, 2024 at 10:16 AM



**INTEGRAL
UNIVERSITY**



Brief Report on Value Added Course on

Green Computing



Dear All,

Recognizing the vital role of value-added courses is crucial, as they serve to bridge the gap between students' learning needs and broader developmental requirements. The university consistently provides value-added courses (VAC) to enrich the educational experience, ensuring students are well-prepared to tackle global challenges and nurture their unique interests and abilities. These courses tap into the talents of emerging professionals, fostering innovation and enabling them to navigate a dynamic environment, becoming more well-rounded individuals. VACs offer a comprehensive perspective on contemporary environmental and industrial challenges, enhancing students' understanding. Moreover, these programs facilitate the acquisition of innovation and creativity skills through diverse courses. In essence, value-added courses are pivotal in shaping students into academically proficient individuals, preparing them to excel professionally and personally in the complexities of the real world

The VAC "Green Computing" for Sustainable Development and E-Waste Management aimed to educate participants on the environmental impact of computing and the importance of sustainable practices. Covering topics like e-waste management and energy-efficient computing, the course delved into the use of green computing for sustainable development. It comprised modules focusing on specific subjects, from introducing green computing concepts to discussing e-waste management and energy-efficient technologies. Utilizing diverse teaching methods, such as video lectures, interactive quizzes, and discussion forums, the course engaged participants effectively. Additional resources like readings and case studies supplemented the content. Assessments, including multiple-choice quizzes, short answer questions, and a final project, gauged participants' comprehension. The final project challenged participants to apply learned concepts to a real-world problem related to green computing and e-waste management.

Recognizing the significance of value-added courses, the Department of Computer Application at Integral University, Lucknow, took the initiative to organize an Online Value Added Course on 'Green Computing.' This endeavor aimed to align with the objectives outlined in sustainable development goals, specifically addressing the goals of quality education and green climate action. The course spanned 15 days, commencing from November 16, 2023, to December 18, 2023. It was thoughtfully designed to cater to both undergraduate and postgraduate students across all departments within the university. A total of 154 students registered and enrolled through ILI, demonstrating a keen interest in the subject matter.

The successful execution of the course was made possible through the collaborative efforts of the university's administration and dedicated faculty members. The course adopted a hybrid mode of delivery, featuring daily sessions covering lectures, quizzes, and assignments throughout the week. Additionally, designated days were reserved for practical quizzes to enhance the learning experience. The collective commitment of the organizing team ensured the seamless completion of tasks and the overall success of the course.

Monday to Saturday between 11:30 AM-1:30 PM.

The engaging session took place on Google Meet for lectures and the ILI-LMS platform for quiz tests, assignments, and learning materials. Participants actively participated, demonstrating dedication and hard work to complete their assigned tasks within the given timeframe. The course equipped them with fundamental knowledge about green computing and emphasized its significance in the current era.

Every faculty member presented impactful lectures in accordance with the structured syllabus for the Value-Added Courses. Each faculty member covered the specified number of modules outlined in the syllabus during their lectures. Participants who successfully completed the course received e-certificates, which were exclusively uploaded on the Learning Management System (LMS). The criteria for awarding certificates were based on performance in quiz tests, feedback for each unit, attendance, general feedback, and meeting the 50% qualifying threshold for the course

.Noteworthy Features of the Value-Added Course (VAC):

- Eligibility extended to students from diverse courses.
- Course registration was free for all participants.
- The course is structured into 9 modules.
- 150 students successfully completed the course, receiving e-certificates.
- Sessions utilized both audio and visual modes through PowerPoint presentations (PPT).

Course Coordinator(s): Dr. Asif Khan

Student Coordinators: Shikha Rai and Mohammad Faiz



**INTEGRAL
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Department of Computer Application

PRESENTS A VALUE ADDED COURSE
(HYBRID MODE) ON

Green Computing

From: 16/11/23 to 18/12/23

Course Convener:

Dr. Mohammad Faisal
Head
Department of Computer
Application

Course Coordinator:

Dr. Asif Khan
Assistant Professor
Department of Computer
Application

Student Coordinators :

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(faizzmd@student.inl.ac.in)
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Shikha Rai
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Contact No. +91 7007136805





Registration QR Code

Registration Close:
16/11/23




Course Detail QR Code



INTEGRAL UNIVERSITY
LUCKNOW - INDIA

VALUE-ADDED COURSE
(HYBRID MODE)
ON
GREEN COMPUTING
VAC (CAV-23-03)
16 NOVEMBER 2023
To
18 DECEMBER, 2023

REGISTRATION CLOSE - 16 NOVEMBER 2023
UPON SUCCESSFUL COMPLETION OF COURSE, EACH CANDIDATE SHALL RECEIVE A CERTIFICATE




ABOUT THE COURSE

The proposed Value-Added Course titled “**Green Computing**” for Sustainable Development and E-Waste Management aimed to educate participants on the environmental impact of computing and the importance of sustainable practices in the industry. The course covered topics such as e-waste management, energy-efficient computing, and the use of green computing for sustainable development. The course was divided into nine modules, each focusing on a specific topic. The first module introduced the concept of green computing and the impact of computing on the environment. The second module discussed e-waste management and the importance of proper disposal of electronic devices. The third module covered energy-efficient technologies and the role they played in reducing the environmental impact of computing. The fourth module focused on the use of green computing for sustainable development, including the use of computing in agriculture, education, and healthcare. The final module provided an overview of the then-current state of green computing and the future directions for the industry. The course employed a variety of teaching methods to engage participants, including video lectures, interactive quizzes, and discussion forums. The course also provided additional resources such as readings and case studies to supplement the content. The course included several assessments to measure the participants’ understanding of the material. These assessments included multiple-choice quizzes, short answer questions, and a final project. The final project required participants to apply the concepts learned in the course to a real-world problem related to green computing and e-waste management. This course is intended for anyone interested in understanding the environmental impact of computing and the importance of sustainable practices in the industry, including students, professionals, and policymakers. The “Green Computing” for Sustainable Development and E-Waste Management Value Added Course will provide valuable information on the environmental impact of computing and the importance of sustainable practices in the industry. The course will effectively use a variety of teaching methods and assessments to engage participants and measure their understanding of the material. This Value-Added Course will be useful to anyone interested in understanding the environmental impact of computing and the importance of sustainable practices in the industry.

COURSE OBJECTIVES

1. Introduction to Green Computing: Definition, principles and benefits of green computing, energy-efficient computing technologies, and environmental impact of IT.
2. E-Waste Management: Definition and types of e-waste, e-waste regulations and laws, e-waste disposal methods and challenges, and best practices for e-waste management.
3. Energy-Efficient Data Centers: Data center design and operations, virtualization and cloud computing, power management, and cooling technologies.
4. Green Networking: Energy-efficient networking technologies, energy-efficient protocols and standards, and sustainable practices for network operations.
5. Sustainable IT Procurement: Life-cycle assessment and analysis, IT equipment procurement and disposal policies, and green certification schemes.
6. Carbon Footprint and Energy Auditing: Methods for measuring and reducing the carbon footprint of IT systems and infrastructure, and energy auditing of IT systems and data centers.
7. Social and Ethical Implications of Green Computing: Social, economic and environmental impacts of green computing, and ethical considerations in green computing.
8. Green Computing Best Practices: Best practices for green computing in the enterprise, green computing tools and software, and case studies of successful green computing projects.
9. Green IT Standards and Certifications: Green IT standards and certifications, such as Energy Star, EPEAT, and LEED.

LEARNING OUTCOMES



Enrolling in a Value-Added Course on Green Computing offers significant value-added learning outcomes. These courses not only impart a strong foundation in sustainable and energy-efficient computing practices but also enhance one's knowledge of environmental impact assessment in the tech industry. Participants gain insights into reducing carbon footprints, promoting resource efficiency, and understanding eco-friendly data center management. Moreover, they acquire skills in evaluating and implementing green IT solutions, which are increasingly in demand in the job market. Ultimately, this VAC on Green Computing equips learners with a competitive edge, enabling them to make informed, eco-conscious decisions in the rapidly evolving field of information technology while contributing to a more sustainable future.

COURSE DETAILS		
Module. No.	Topic	Content
01	Introduction to Green Computing	<ul style="list-style-type: none"> • Definition, principles and benefits of green computing • Energy-efficient computing technologies • Environmental impact of IT
02	E- Waste Management(Case Stud)	<ul style="list-style-type: none"> • Definition and types of e-waste • e-waste regulations and laws • e-waste disposal methods and challenges, • Best practices for e-waste management.
03	Energy-Efficient Data Centers	<ul style="list-style-type: none"> • Data center design and operations • Virtualization and cloud computing • Power management and cooling technologies.
04	Green Networking	<ul style="list-style-type: none"> • Energy-efficient networking technologies • Energy-efficient protocols and standards • Sustainable practices for network operations.
05	Sustainable IT Procurement	<ul style="list-style-type: none"> • Life-cycle assessment and analysis • IT equipment procurement • Disposal policies • Green certification schemes.

COURSE DETAILS		
06	Carbon Footprint and Energy Auditing(Case Study)	<ul style="list-style-type: none"> • Methods for measuring and reducing the carbon footprint of IT systems and infrastructure • Energy auditing of IT systems and data centers.
07	Social and Ethical Implications of Green Computing:	<ul style="list-style-type: none"> • Social, economic and environmental impacts of green computing. Ethical considerations in green computing.
08	Green Computing Best Practices: (Case Study)	<ul style="list-style-type: none"> • Best practices for green computing in the enterprise • Green computing tools and software • Case studies of successful green computing projects.
09	Green IT Standards and Certifications:	<ul style="list-style-type: none"> • Green IT Standards and Certifications

CONVENER Dr. Mohammad Faisal, Head, CA, Integral University
COURSE COORDINATOR Dr. Asif Khan, CA, Integral University
COURSE INSTRUCTORS Dr Asif Khan, CA, Integral University Mr. Kamran Ahmad, CA, Integral University Dr. Bably Dolly, CA, Integral University Dr Ahmad Neyaz Khan, CA, Integral University Shameem Ahmad Ansari, CA, Integral University
STUDENT COORDINATORS Mohammad Faiz Shikha Rai

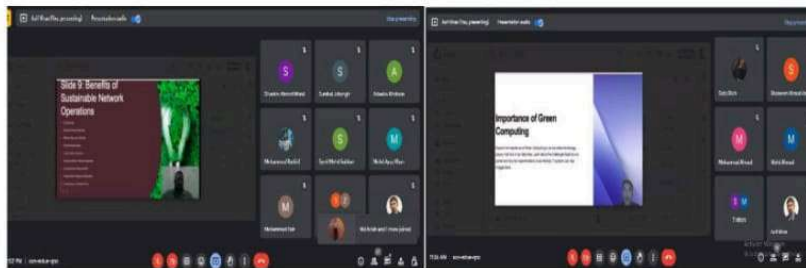
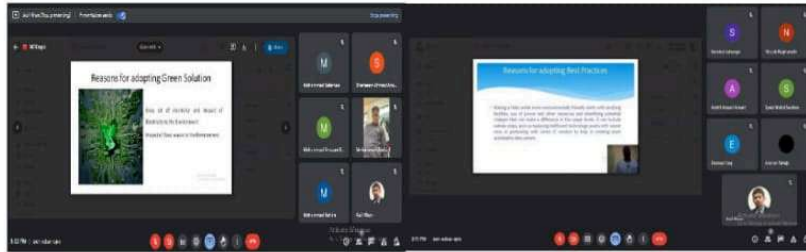
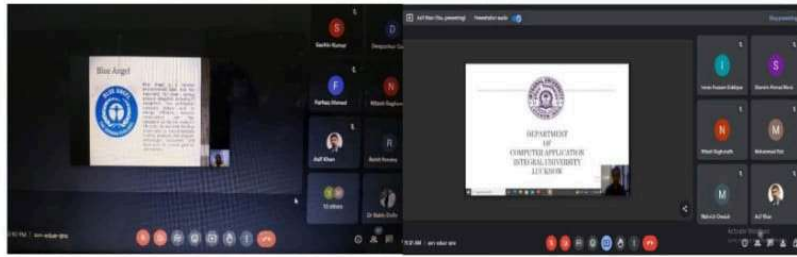
COURSE SCHEDULE			
Date (Duration)	16-11-2023, 11:30 AM-01:00 PM (01:30 hrs.)	17-11-2023, 11:30 AM-12:30 PM (01:00 hrs.)	18-11-2023, 11:30AM-01:00PM (01:30 hrs.)
Session	Module-01	Quiz-01	Assignment-01
Date (Duration)	20-11-2023, 11:30 AM-01:00 PM (01:30 hrs.)	21-11-2023, 11:30 AM-12:30PM (01:00 hrs.)	22-11-2023, 11:30 AM-01:00 PM (01:30 hrs.)
Session	Module-02	Quiz-02	Assignment-02
Date (Duration)	23-11-2023, 11:30 AM-01:00 PM (01:30 hrs.)	24-11-2023, 11:30 AM-12:30 PM (01:00 hrs.)	25-11-2023, 11:30 AM-01:00 PM (01:30 hrs.)
Session	Module-03	Quiz-03	Assignment-03
Date (Duration)	28-11-2023, 11:30 AM-01:00 PM (01:30 hrs.)	29-11-2023, 11:30 AM-12:30 PM (01:00 hrs.)	30-11-2023, 11:30 AM-01:00 PM (01:30 hrs.)
Session	Module-04	Quiz-04	Assignment-04
Date (Duration)	01-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)	02-12-2023, 11:30 AM-12:30 PM (01:00 hrs.)	04-12-2023, 11:30AM-01:00PM (01:30 hrs.)
Session	Module-05	Quiz-05	Assignment-05

COURSE SCHEDULE

Date (Duration)	05-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)	06-12-2023, 11:30 AM-12:30PM (01:00 hrs.)	07-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)
Session	Module-06	Quiz-06	Assignment-06
Date (Duration)	08-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)	09-12-2023, 11:30 AM-12:30 PM (01:00 hrs.)	11-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)
Session	Module-07	Quiz-07	Assignment-07
Date (Duration)	12-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)	13-12-2023, 11:30 AM-12:30 PM (01:00 hrs.)	14-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)
Session	Module-08	Quiz-08	Assignment-08
Date (Duration)	15-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)	16-12-2023, 11:30 AM-12:30 PM (01:00 hrs.)	18-12-2023, 11:30 AM-01:00 PM (01:30 hrs.)
Session	Module-09	Quiz-09	Assignment-09

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Module's Live Session





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CERTIFICATE OF COMPLETION

Certificate Number: XXXXXX-XXXXXXXXXX-XXXXX

This is to certify that XXXXX (ID number XXXXXX)

has successfully
completed the Value Added Course (CAV-23-03)

Green Computing

organized by
Department of Computer Application
in the duration 16-11-2023 to 18-12-2023

Issue date:26-12-2023

Dr. Asif Khan
Coordinator

Assistant Professor, Department of Computer Application
Integral University, Lucknow

Dr. Mohammad Faisal
Convener

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