



Y20-G20 WORKSHOP
Holistic and Multidisciplinary Education
and
Assam Engineering College, India

ORGANISED BY
ASSAM ENGINEERING COLLEGE, INDIA
[MULTI-SKILLING & SUSTAINABILITY CENTRE, AEC
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**HOLISTIC AND MULTIDISCIPLINARY EDUCATION
AND
ASSAM ENGINEERING COLLEGE, INDIA**

A. Bora

Y20 presentation by Dr A Bora, Principal AEC

**HOLISTIC AND MULTIDISCIPLINARY EDUCATION
AND
ASSAM ENGINEERING COLLEGE, INDIA**

- ❑ **To impart Systemic, Holistic & critical Thinking Skill**
 - ❑ **Capacity to think from the parts to whole; from batch to college; from Department to College, from Hostel to College! Similarly, you need to think from as an individual to family, family to society, institution as a part of society**
- **To impart Life-Cycle-Thinking Skill**
 - **To make the engineers or any professional think how Engineering or any Design and Activities impact People and Natural Environment considering the life-cycle of their projects.**
 - **Consequences of Engineering Design and Activities/policy decisions on current and Future Generations**
 - ❖ **Shifting of Risks?**

HOLISTIC AND MULTIDISCIPLINARY EDUCATION AND ASSAM ENGINEERING COLLEGE, INDIA

- **Needs to engage not only the technical and physical issues & forces, but also the social, economic, environmental dimensions of the problems of 21st century**
 - ❖ **To integrate Sustainability as a new value in Engineering/higher Education**
 - ❖ **A Roadmap to make Engineering/higher Education Holistic and Multidisciplinary**
 - ❖ **Single-stream HEIs can also impart multidisciplinary and holistic education**

**HOLISTIC AND MULTIDISCIPLINARY EDUCATION
AND
ASSAM ENGINEERING COLLEGE, INDIA**

AEC'S VISION AND MISSIONS

- **To be an institution for promoting and supporting sustainable development.**

MISSION

- **To prepare technical manpower with knowledge skills and values of sustainability.**
- **To take up relevant problems of society & industry as projects, research themes for study and to provide technological solutions**

**HOLISTIC AND MULTIDISCIPLINARY EDUCATION
AND
ASSAM ENGINEERING COLLEGE, INDIA**

- Needs to engage not only the technical and physical issues & forces, but also the social, economic, environmental dimensions of the problems of 21st century
- ❖ To integrate Sustainability as a new value in Engineering Education

What does the value means?

- Values in Human System is similar to Software in computer system
- Value influences every aspect of Governance
 - ❖ Decision making, choice making, needs and lifestyle
 - ❖ Motive behind all decisions and actions

Implications of Values

- ❖ **Technological Solutions Cannot Fix Social Problems?**
- ❖ **The Earth provides enough to satisfy every man's needs but not any man's greed. The problem of Behaviour, greed cannot be fixed by technology.**
- ❖ **Inequality cannot be fixed by technology. Inequality in resource consumption or greenhouse gas emission promotes climate change. Inequality block agreements to address climate change.**
- ❖ **To have an American life style by all five or six planets would be needed to serve as mines and waste dumps.**

- **Values sustainability perspective is required to lead the country into the 21st century and the fourth industrial revolution, as per NEP-2020**
 - AI, 3-D machining, big data analysis, and machine learning, in addition to genomic studies, biotechnology, nanotechnology, neuroscience, with for enhancing the employability of the youth.
- **Global Citizenship not only because of interconnected global economy but also for one global atmosphere, hydrological system of climate system.**
- **With no global government, global values of humanity in the form of sustainability is required to be impacted to the children and citizens.**

CAMPUS SUSTAINABILITY INITIATIVE OF AEC [2012]

- **Every student/faculty/staff will participate in the COMMUNITY-BASED PROJECT of so as to promote and sustain a cleaner and greener campus of the college.**
- **Avoiding use of plastic glass, plate etc in any meeting, gathering or function within the college campus. Organizers would integrate the question of disposal of wastes that are likely to be generated from such activities**
- **Adopting a mechanism for Segregating wastes from the Departments, Laboratory, Library and Office and nearby markets in front of the college**

CAMPUS SUSTAINABILITY INITIATIVE OF AEC [2012]

- **A Community Composting System launched at AEC Campus**
- **Adopting a system for disposal of residual wastes that cannot be composted or recycled for being hazardous in character.**
- **Model Sustainable Living Campus**
- **Campus Land and natural beauty to be protected for the generations to come!**

CAMPUS SUSTAINABILITY OF THE INSTITUTES

Sustainable living

- **Adopting a system for disposal of residual wastes that cannot be composted or recycled for being hazardous in character.**
- **Sustainable Campus to Sustainable Cities to Sustainable State to Sustainable Nation to Sustainable World**
- **Involvement of all Stakeholders**
- **Holistic and Multidisciplinary**



OUR VISION IS
FROM SUSTAINABLE
CAMPUS
TO
SUSTAINABLE WORLD

THE NATURAL BEAUTY
EMPLOYED TO
AEC

VISION IS ALIGNED
WITH THE VISION

AEC SEEKS
FROM ALL STAKEHOLDERS
TO SUSTAIN
OF

AEC SEEK SUPPORT
FROM ALL STAKEHOLDERS
TO ELIMINATE RAGGING
AT AEC

AEC SEEK SUPPORT
FROM ALL STAKEHOLDERS
TO ELIMINATE RAGGING
AT AEC

AEC RECOGNISES THE
LINKAGES
FROM SUSTAINABLE
CAMPUS TO SUSTAINABLE
WORLD

SUPPORT
STAKEHOLDERS
TO ELIMINATE RAGGING
AT AEC

MULTI-SKILLING &
SUSTAINABILITY CENTRE OF
AEC ENVISIONS:
• THEMATIC, HOLISTIC &
• CRITICAL THINKING SKILLS
• LIFE-CYCLE-THINKING SKILLS
• HOLISTIC EDUCATION















PROGRESS OF AEC
PROGRESS OF AEC
PROGRESS OF AEC

AEC SEeks SUPPORT
FROM ALL STAKEHOLDERS
TO SUSTAIN THE GLORY
OF AEC

AEC'S VISION IS ALIGNED
WITH THE VISION
OF
"ONE EARTH, ONE FUTURE"
USE FUTURE

PARTICIPATE
IN
COMMUNITY COMPOSTING
PLANT OF
AEC

USE
FUTURE
OF AEC

AEC SEeks SUPPORT
FROM ALL STAKEHOLDERS
TO SUSTAIN THE GLORY
OF AEC

AEC RECOGNISES THE
LINKAGES
FROM SUSTAINABLE
CAMPUS TO SUSTAINABLE
WORLD

MISSION OF AEC
- FOSTER, IMPROVE WITH
INTEGRATED SKILLS AND
QUALITY OF EDUCATION
TO PREPARE
POLYTECHNIC GRADUATES
FOR THE
INDUSTRIAL
REQUIREMENTS

AEC TAKES THE PRIDE
FOR
INDIA'S VISION OF G-20
LEADING THE WORLD

AEC RECOGNISES THE
LINKAGES
FROM SUSTAINABLE
CAMPUS TO SUSTAINABLE
WORLD









VISION OF AEC
TO
PROMOTE AND SUPPORT
SUSTAINABLE
DEVELOPMENT

VISION IS AEC
TO
PROMOTE AND SUPPORT
SUSTAINABLE
DEVELOPMENT

AEC SEEKS SUPPORT
FROM ALL STAKEHOLDERS
TO SUSTAIN THE GLORY
OF AEC

AND FURTHER
GLOBAL COOPERATION

AEC'S VISION IS ALIGNED
WITH
HUMAN-CENTRIC
GLOBALIZATION

AEC'S VISION IS A ROAD
TO
HUMAN-CENTRIC
GLOBALIZATION

MAKE THE YOUTH20 SUMMIT
A GRAND SUCCESS

MAKE THE
YOUTH20 SUMMIT
A GRAND SUCCESS



AEC RECOGNISES THE
LINKAGES
FROM SUSTAINABLE
CAMPUS TO SUSTAINABLE
WORLD

AEC TAKES THE PRIDE
FOR
INDIA'S VISION OF G-20
LEADING THE WORLD

SUPPORT
STAKEHOLDERS
THE GLORY
AEC

AEC RECOGNISES THE
LINKAGES
FROM SUSTAINABLE
CAMPUS TO SUSTAINABLE
WORLD

AEC SEEK SUPPORT
FROM ALL STAKEHOLDERS
TO ELIMINATE RAGGING

PARTICIPATE
COMMUNITY
P
AEC'S VI
WITH
ONE EARTH, ONE FAMIL
ONE FUTURE

MISSIONS OF AEC
• TECHNICAL MANPOWER WITH
KNOWLEDGE SKILLS AND
VALUES OF SUSTAINABILITY.
• TECHNOLOGICAL
SOLUTIONS OF RELEVANT
PROBLEMS OF SOCIETY &
INDUSTRY





AEC RECOGNISES THE
LINKAGES
FROM SUSTAINABLE
CAMPUS TO SUSTAINABLE
WORLD

AEC SEEKS SUPPORT
FROM ALL STAKEHOLDERS
TO SUSTAIN THE GLORY
OF AEC

AEC TAKES THE PRIDE
FOR
INDIA'S VISION OF G-20
LEADING THE WORLD

AEC RECOGNISES THE
LINKAGES
FROM SUSTAINABLE
CAMPUS TO SUSTAINABLE
WORLD

MISSIONS OF AEC
TECHNICAL MANPOWER WITH
KNOWLEDGE SKILLS AND
VALUES OF SUSTAINABILITY.

PARTICIPATE
IN
UNITY COMPOSTING
PLANT OF
AEC

FROM ALL STAKEHOLDERS
TO ELIMINATE RAGGING
AT AEC

PARTICIPATE
IN
UNITY COMPOSTING
PLANT OF
AEC

ON IS ALIGNED
THE VISION
OF
ONE FAMILY,
ONE FUTURE'

AEC VALUES
GLOBAL CITIZENSHIP

GRAND SUCCESS











Thank You all