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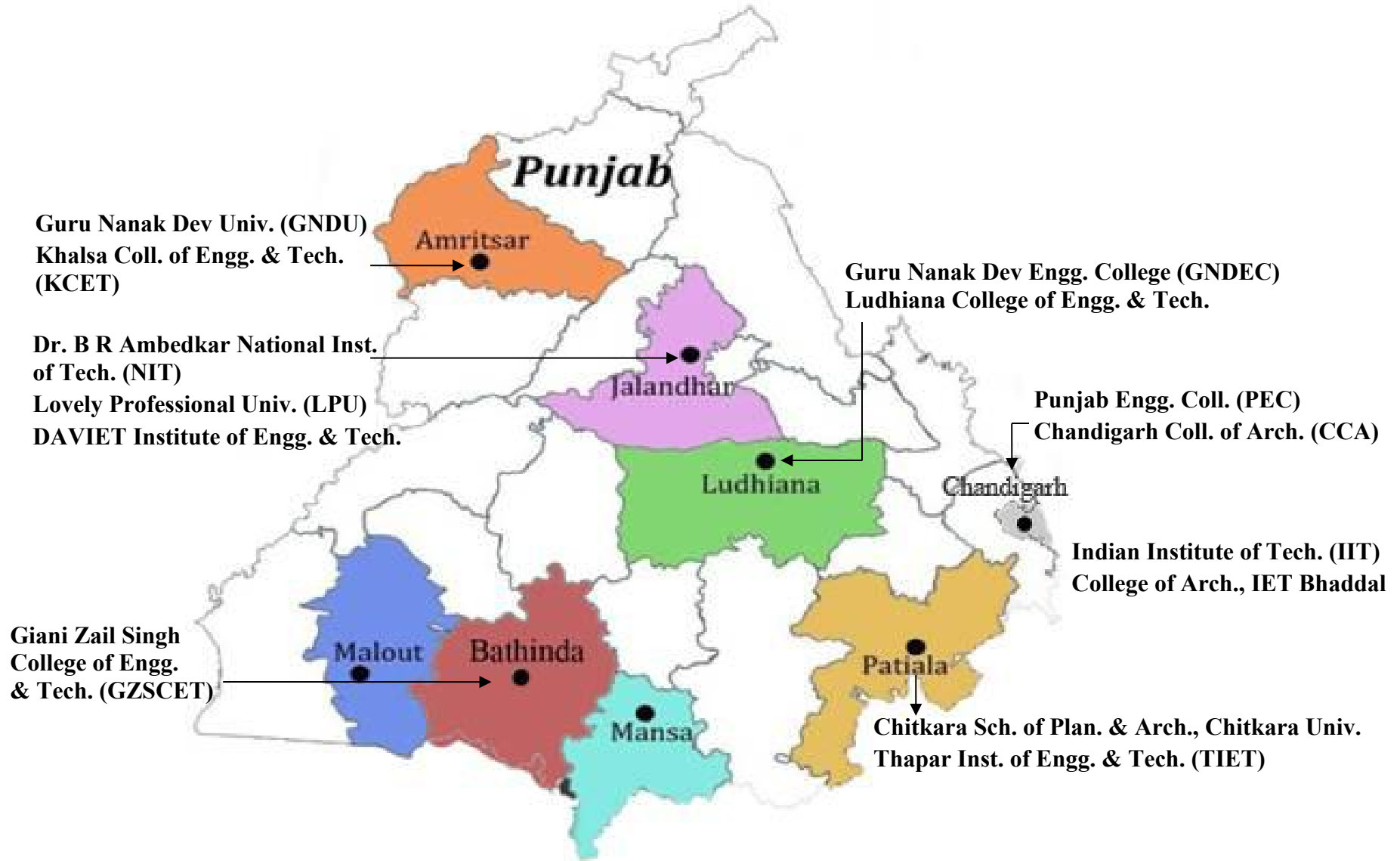
***Built Structures -  
Skill Up-Gradation Training  
PUNJAB***

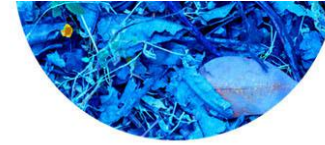
*Certified by  
Guru Nanak Dev Engineering College, Ludhiana*





## *Locations for Training in the State of Punjab*





## *Objectives of the Programme*

Upgrade existing skill of Engineers through a Certified Training Program conducted in reputed institutes across various states in India.

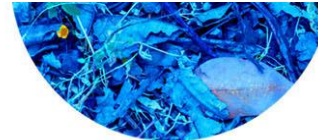
- Upgrade & Strengthen existing knowledge base of practicing Civil Engineers / Architects, on Building Construction.
- Relate theory to practice in the regional context for Environment and Climate responsive Materials, Products & Services.
- Hone Computer application skills on technical interventions.
- Adopt new Technologies to address challenges in the existing and new built structures.



## *Outcome of the Programme*

- A better understanding of new Products, Processes and Construction Techniques as well as Design & Construction Management.
- Academia - Industry connect with Interactive sessions focusing on challenges of work in real life situations, and on ground Experiences, with practical problem solving skills.
- Upgraded Design & Build skills relevant to modern requirements with use of information technology in a world of Global Warming & Climate Change.
- Hand holding support initiatives (post training) by both faculty & industry to build an ecosystem of professional excellence.

# Need Assessment Form



- Name:
- Contact detail:
  - Address (Office):
  - (Residence):
  - Telephone (Mobile):
  - Telephone (Landline):
  - Email:
- Gender: M  F
- Age:
- Academic Qualification:
- Institute:
- Year in which qualified:
- Any other Professional Training undertaken:
- Employment Details : Self employed
- Working in a company or firm
- Work Experience (in years):
- Projects undertaken with year of completion -

Residential			Commercial			Institutional		
No. of Projects			No. of Projects			No. of Projects		
✓	Completed	Year	✓	Completed	Year	✓	Completed	Year
G+ 1	<input type="checkbox"/>	<input type="checkbox"/>	Offices	<input type="checkbox"/>	<input type="checkbox"/>	Hospitality	<input type="checkbox"/>	<input type="checkbox"/>
G+ 2	<input type="checkbox"/>	<input type="checkbox"/>	Shops	<input type="checkbox"/>	<input type="checkbox"/>	Healthcare	<input type="checkbox"/>	<input type="checkbox"/>
G+ 3	<input type="checkbox"/>	<input type="checkbox"/>	Malls	<input type="checkbox"/>	<input type="checkbox"/>	Resorts	<input type="checkbox"/>	<input type="checkbox"/>
G+ 4	<input type="checkbox"/>	<input type="checkbox"/>	Others	<input type="checkbox"/>	<input type="checkbox"/>	Hotels	<input type="checkbox"/>	<input type="checkbox"/>
High rise	<input type="checkbox"/>	<input type="checkbox"/>				Restaurants	<input type="checkbox"/>	<input type="checkbox"/>

- Consultant involved in the project
- |            | ✓                        | Year                 | Project description in short |
|------------|--------------------------|----------------------|------------------------------|
| Structural | <input type="checkbox"/> | <input type="text"/> | <input type="text"/>         |
| Electrical | <input type="checkbox"/> | <input type="text"/> | <input type="text"/>         |
| Plumbing   | <input type="checkbox"/> | <input type="text"/> | <input type="text"/>         |
| HVAC       | <input type="checkbox"/> | <input type="text"/> | <input type="text"/>         |
| Any other  | <input type="checkbox"/> | <input type="text"/> | <input type="text"/>         |

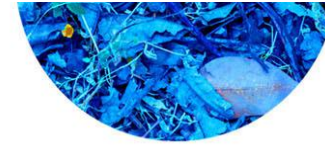
**Expertise / Knowledge / Interest levels in fields of -**

Tick in the appropriate box:

	Most Interested	Interested	Less Interested	Existing Expertise
<b>Construction</b>				
▪ Rapid building construction and emerging technologies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Innovations in Concrete Construction: Prefabricated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Innovations in Steel Construction: Composite steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Innovative Materials & Products: Glass, Paints, Surface Finish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Innovative Waterproofing Products & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Retrofit Solutions for Existing Built Structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Repair: Problems & Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Regional</b>				
▪ Use of locally available materials in building construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Alternative Building Techniques: in the local context	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Disaster Proof Structures: Earthquake, Fire & Safety Systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Sustainable Building techniques: Right Steps in Right Order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Sustainable Built Structures</b>				
▪ Energy Management: Alternative energy systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Water Management: Water recycling, Phytoid system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Waste Water Management: STP, Grey water recycling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Solid Waste Management: MSW, Demolition W, Composting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Building Integrated Management Systems - BIMS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
▪ Urban Farming Techniques in Buildings - Roof gardens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Suggestions, (any other) for specific learning needs.**

**Key expectations from the training.**



# *IGM: Interaction with Practicing Architects & Engineers for Need Assessment*



Mansa, Punjab



Malout, Punjab



Patiala, Punjab



Jalandhar, Punjab



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*Amritsar, Punjab*  
*Oct. 6 to Dec. 1, 2018*



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## LAUNCH CEREMONY -1

Date: Oct. 6, 2018 at Hyatt Hotel, Amritsar



*Lighting of the Lamp*

Mr. Arun Hamda (MRH), Mr. Subramaniam (Tata Tiscon), Mr. Pradeep Malhotra (MRH), Dr. Harpal Singh (GNDEC), Dr. Behl (GNDU), Prof. Kulbir S Gill (GNDEC), Dr. H S Rai (GNDEC), Dr. Bikramjit Singh (KCET), Dr. Jagbir Singh (GNDEC), Ms. Sangita Kapoor (Blue Planet)





### ***Session -1: Oct. 6, 2018***



***Architecture in a Warming World -  
Good Building Design Practices for  
Architects.***

***Ms. Sangita Kapoor***  
*Sustainability Consultant, Blue Planet.*



***Good Building Practices - Building  
Design & Construction.***

***Dr. H S Rai***  
*Professor - GNDEC Ludhiana*

### ***Session -2: Oct. 13, 2018***

***Good Practices for Contemporary Climate Responsive Architecture in Punjab  
Building Envelop, Orientation, Day Light & Ventilation.***

How a good building is supposed to do all this and more.....be resource efficient, consume less energy to build and run, low maintenance, long life, produce less Waste + Be Functional, Comfortable, Climate responsive, Cost effective, Aspirational & Aesthetic too !

***Ar. Siddhartha Wig***

*B.Arch. SPA, Delhi, M.Tech.in Building Science & Construction Management*



### ***Session -3: Oct. 27, 2018***



***Geotechnical Aspects in Building Construction -  
The Indian Scenario & Scope for Improvement.  
Soil & its behaviour, Soil Testing.***

***Dr. Kulbir Singh Gill***  
*HoD - Civil Engg. Dept., GNDEC, Ludhiana*



***Ground Improvement:  
Problems & Approach for  
Solutions.***

***Dr. Charanjeet Singh***  
*GNDEC, Ludhiana*

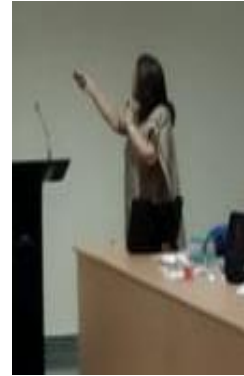


### ***Session -4: Nov. 3, 2018***



***Water & Waste Management Practices in Dwelling Units, Solid Waste Management, Water Conservation in Built Environment & Wastewater Treatment/Management: Technological Options.***

***Dr. Siby John***  
*HoD - Civil Engg. Dept., PEC, Chandigarh*



***Right Steps in the Right Order for Systems Approach to Built Structures - Heating, Cooling, Lighting & Ventilation.***

***Ms. Sangita Kapoor***

### ***Session -5: Nov. 10, 2018***



***Building Information 3D Modeling Computer Application for Architecture, Engineering, Construction & Operations Industry.***

***Dr. H S Rai, TIET, Patiala***

### ***Session -6: Nov. 17, 2018***



***Practical Solutions, Innovations & Techniques for Building Construction to Reduce Costs, Ensure Quality & Efficacy through Selection of Materials.***

***Dr. Harvinder Singh***  
*GNDEC, Ludhiana*

### ***Session -7: Nov. 24, 2018***



***Earth quake Resistant Design of Concrete Structures, Fatigue Behaviour, Technology & Recycling of materials in concrete.***

***Dr. S P Singh***  
*Dean - Plan. & Development, NIT Jalandhar*



***Hands on Training on Concrete Testing Structure Health Monitoring using Destructive & Non destructive Techniques.***

***Dr. Jagbir Singh***  
*GNDEC, Ludhiana*



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***Concluding Session -8: Dec. 01, 2018  
Natural & Artificial Lighting Space Planning:  
Designing Inside Out Aesthetics & Language of Design  
in Architecture.***

***Creating Aesthetic Impact through use of Lighting, Colours &  
Paints in Landscape, Exterior & Interior Spaces in Built Structures.***

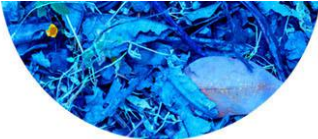
***Ms. Sangita Kapoor***



**CLOSING CEREMONY**

***Date: Dec. 10, 2018 at Hyatt Hotel, Amritsar***





Faculty, Industry Experts and Practicing Architects & Engineers



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## *Mansa, Punjab* *March 30 to April 27, 2019*

1. Budhlada
2. Bareta
3. Barnala
4. Bhikhi
5. Bhoa
6. Dhanaula
7. Joga
8. Mansa
9. Rampura
10. Sangrur
11. Sardulghar
12. Sunam
13. Tapa
14. Talwandi



**TISCON**  
**DISCOVERY**  
FOCUS ON EXCELLENCE *Pro*



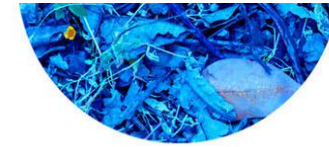
**LAUNCH CEREMONY -1**

*Date: March 30, 2019*



*Lighting of the Lamp*

# *Training Session in Progress*



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## *Session -1*

*Date: March 30, 2019*

### *Principles of Architectural Planning & Design*

*Ms. Sangita Kapoor (Director, Blue Planet)*



## *Session -2*

### *Good Practices & Innovations in Concrete Construction*

*Dr. Jagbir Singh (Professor, GNDEC, Ludhiana)*



*Date: April 6, 2019*



### **Session -3**

***Practical Solutions to Reduce Cost, Improve Quality through Innovative Techniques & Materials for Good Building Construction: Steel & Concrete***

***Prof. Harvinder Singh (GNDEC, Ludhiana)***







*Session -4*

*Date: April 6, 2019*



***HVAC for Single Dwelling Units***  
*Prof. Gagandeep S Sodhi (GNDEC, Ludhiana)*

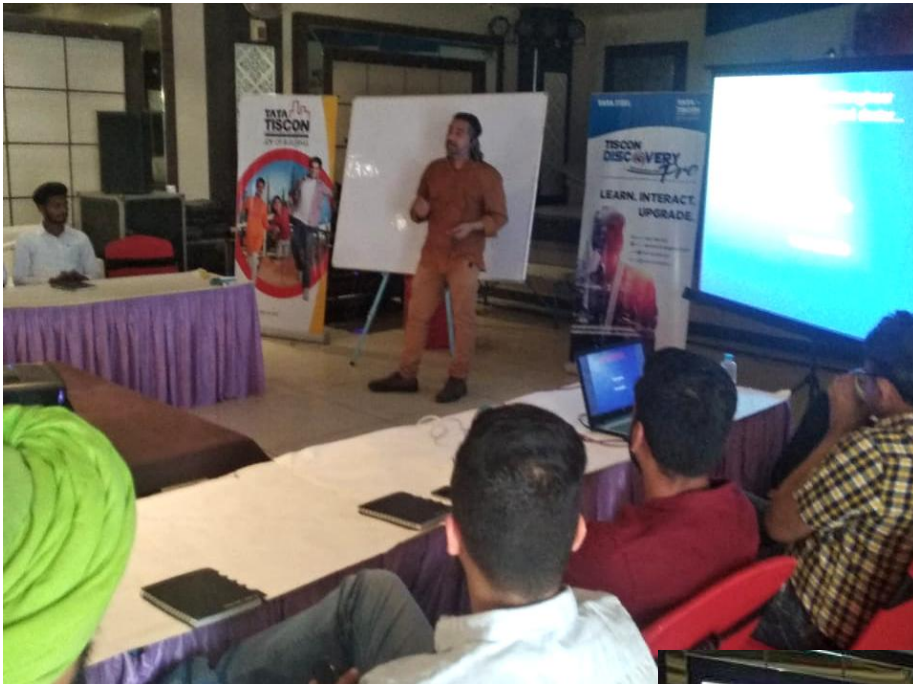
***Electrical Services for Single Dwelling Units***  
*Dr. Arvind Dhingra (GNDEC, Ludhiana)*



**Session -5**

*Date: April 13, 2019*

***Good Practices for Contemporary Climate Responsive Architecture in Punjab***  
*Ar. Siddhartha Wig (Chandigarh)*



**Session -6**

***Basics of Plumbing Design in Low Rise Buildings***

*Mr. Sahil Kansal (Consultant, Public Health Engg., Chandigarh)*



**Session -7**

*Date: April 19, 2019*

***Geotechnical Aspects in the Building Planning; Understanding Relationship of Soils & Foundation Techniques***  
*Prof. Gurprit Bath (GZSCET, Bathinda)*



**Session -8**

***Testing: Concrete & Soil Practical Demonstration***  
*Dr. Jagbir Singh*



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## Session -9

Date: April 27, 2019

***Surface Finishes, Materials & Products:  
Roofs, Ceilings, Walls & Floors***  
Ms. Sangita Kapoor (Director, Blue Planet)



## Session -10

***Bye-Laws for Architectural &  
Engineering Practices***  
Er. Kapil Arora



**CLOSING CEREMONY**

*Date: April 27, 2019*





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