

## TRAINING COURSES

### CONTENT OF VARIOUS PROGRAMMES

<b>PRODUCTION OF COMPRESSED STABILISED EARTH BLOCKS</b>
<b>One-week regular programme: 3 to 4 times a year</b>
6 days course with 4 sessions daily from 9.00 AM to 4.30 PM
<ul style="list-style-type: none"> <li>- Video and slide show on earth architecture in the world</li> <li>- Building with earth in Auroville and particular earth techniques (Slide show)</li> <li>- Sustainability and environmental friendliness and management of resources (Slide show)</li> <li>- Basic data on CSEB – Raw material</li> <li>- Soil identification (field tests) and improvement principles</li> <li>- Soil stabilization principles and calculation</li> <li>- Block yard organisation – Quality control principles</li> <li>- Cost analysis &amp; economic feasibility study</li> <li>- Production of compressed stabilised earth blocks (plain, interlocking and special)</li> </ul>
Eligibility: architects or engineers, technicians or supervisors, masons or students
Minimum 15 people – Maximum 30 people

<b>MASONRY WITH COMPRESSED STABILISED EARTH BLOCKS</b>
<b>One-week regular programme: 3 to 4 times a year</b>
6 days course with 4 sessions daily from 9.00 AM to 4.30 PM
<ul style="list-style-type: none"> <li>- Particular earth techniques (Slide show)</li> <li>- Soil identification – Tests for mortar – Mortar quality</li> <li>- Bonds and design guidelines for CSEB</li> <li>- Building a basement, a plinth beam with U blocks and casting the plinth beam</li> <li>- Building interlocking walls</li> <li>- Building composite columns, lintels and beams with U blocks</li> <li>- Introduction to stabilised rammed earth foundations</li> <li>- Introduction to stabilised rammed earth walls</li> <li>- Introduction for building arches, vaults and domes (Slide show and practical exercises)</li> </ul>
Eligibility: architects or engineers, technicians or supervisors, masons or students
Minimum 15 people – Maximum 30 people

<b>THEORY OF ARCHES, VAULTS AND DOMES (AVD)</b>
<b>One-week regular programme: 3 times a year</b>
6 days course with 6 sessions daily from 8.30 AM to 7.30 PM
<ul style="list-style-type: none"> <li>- Introduction, terminology, typology, diversity of AVD (Slide show)</li> <li>- Various details about AVD and basic structural principles,</li> <li>- Stability study with the catenary method</li> <li>- Stability study with the funicular method</li> <li>- Stability study with the optimisation method</li> <li>- Stability study of basic shapes</li> <li>- 8 case studies with slide shows</li> <li>- Designing AVD with the optimisation method</li> </ul>
Eligibility: architects or engineers, technicians, students
Minimum 15 people – Maximum 30 people

<b>BUILDING ARCHES, VAULTS AND DOMES (AVD)</b>
<b>One-week regular programme: 3 times a year</b>
6 days course with 5 sessions daily from 8.30 AM to 7.30 PM
<ul style="list-style-type: none"> <li>- Principles for building AVD (Slide show) – Mortar quality</li> <li>- Building various typical arches of various span with centring (Bucket, Catenary, Corbelled, Pointed, Segmental, Semicircular)</li> <li>- Building various typical vaults without centring (catenary, segmental, semicircular)</li> <li>- Building various typical domes of 1.5 m span without centring (conical, cloister dome, on squinches, hemispherical, pointed, segmental)</li> <li>- Visit of building site with AVD construction</li> </ul>
Eligibility: architects or engineers, technicians or supervisors, masons or students
Minimum 15 people – Maximum 30 people

<b>PRODUCTION AND USE OF CSEB</b>
<b>One-week intensive regular programme: 2 to 3 times a year</b>
6 days course with 6 sessions daily from 8.30 AM to 7.30 PM
<ul style="list-style-type: none"> <li>- Video and slide show on earth architecture in the world</li> <li>- Building with earth in Auroville and particular earth techniques (Slide show)</li> <li>- Sustainability and environmental friendliness and management of resources (Slide show)</li> <li>- Basic data on CSEB – Raw material</li> <li>- Soil identification (field tests) and improvement principles</li> <li>- Soil stabilization principles and calculation</li> <li>- Block yard organisation – Quality control principles</li> <li>- Cost analysis &amp; economic feasibility study</li> <li>- Production of compressed stabilised earth blocks (plain and special)</li> <li>- Ramming a stabilized rammed earth foundation and wall</li> <li>- Mortar quality, block-laying &amp; design guidelines</li> <li>- Building composite columns, lintels and beams with U blocks</li> <li>- Building a composite plinth beam with U blocks</li> <li>- Building with arches, vaults and domes (Slide show and practical exercises)</li> </ul>
Eligibility: architects or engineers, technicians or supervisors, masons or students
Minimum 15 people – Maximum 30 people

<b>PRODUCTION AND USE OF CSEB FOR EARTHQUAKE RESISTANCE</b>
<b>One-week intensive programme (scheduled upon request)</b>
6 days course with 6 sessions daily from 8.30 AM to 6.00 PM
<ul style="list-style-type: none"> <li>- Video and slide show on earth architecture in the world</li> <li>- Building with earth in Auroville and particular earth techniques (Slide show)</li> <li>- Sustainability and environmental friendliness and management of resources (Slide show)</li> <li>- Basic data on CSEB – Raw material</li> <li>- Soil identification and improvement principles - Soil stabilization principles and calculation</li> <li>- Mortar quality and tests for mortar - Block laying &amp; design guidelines for conventional buildings</li> <li>- Earthquake effects on buildings (Slides) – Design guidelines for earthquake resistance</li> <li>- Block yard organisation and quality control principles</li> <li>- Production of compressed stabilised earth blocks (plain and special)</li> <li>- Production of hollow interlocking compressed stabilised earth blocks (245 &amp; 295 of various sizes)</li> <li>- Introduction to stabilised rammed earth foundations - Introduction to stabilised rammed earth walls</li> <li>- Building a plinth with plain and interlocking blocks – Casting a RCC plinth beam</li> <li>- Building interlocking walls 245 and 295</li> <li>- Pre-casting composite lintels (Single height and double height)</li> <li>- Cost analysis &amp; economic feasibility study</li> <li>- Case study on the earthquake resistant AUM house (Slide show)</li> </ul>
Eligibility: architects or engineers, technicians or supervisors, masons or students
Minimum 15 people – Maximum 30 people

<b>PRODUCTION OF CSEB FOR EARTHQUAKE RESISTANCE</b> <b>One-week programme (scheduled upon request)</b>
6 days course with 6 sessions daily from 8.30 AM to 6.00 PM
<ul style="list-style-type: none"> <li>- Video and slide show on earth architecture in the world</li> <li>- Building with earth in Auroville and particular earth techniques (Slide show)</li> <li>- Sustainability and environmental friendliness and management of resources (Slide show)</li> <li>- Basic data on CSEB – Raw material</li> <li>- Soil identification (field tests) and improvement principles</li> <li>- Soil stabilization principles and calculation</li> <li>- Blockyard organisation – Quality control principles</li> <li>- Cost analysis &amp; economic feasibility study</li> <li>- Production of compressed stabilised earth blocks (plain and special)</li> <li>- Production of hollow interlocking compressed stabilised earth blocks (245 &amp; 295 of various sizes &amp; U blocks)</li> </ul>
Eligibility: architects or engineers, technicians or supervisors, masons or students
Minimum 15 people – Maximum 30 people

<b>MASONRY WITH CSEB FOR EARTHQUAKE RESISTANCE</b> <b>One-week programme (scheduled upon request)</b>
6 days course with 6 sessions daily from 8.30 AM to 6.00 PM
<ul style="list-style-type: none"> <li>- Earthquake effects on buildings (Slide show)</li> <li>- Basic design guidelines for CSEB – Basic design guidelines for earthquake resistance</li> <li>- Design guidelines with interlocking blocks</li> <li>- 2 Case studies on earthquake resistant houses with CSEB (Slide shows)</li> <li>- Ramming stabilised rammed earth foundations</li> <li>- Building a plinth with hollow interlocking blocks</li> <li>- Casting a RCC plinth beam in U blocks (hollow interlocking)</li> <li>- Building interlocking walls 245</li> <li>- Building composite columns 240 and 290</li> <li>- Pre-casting composite lintels (Single height and double height)</li> <li>- Introduction to building arches vaults and domes (Slides show)</li> <li>- Building arches</li> </ul>
Eligibility: architects or engineers, technicians or supervisors, masons or students
Minimum 15 people – Maximum 30 people

<b>AWARENESS PROGRAMME ON EARTH ARCHITECTURE</b> <b>Two-day awareness programme (scheduled upon request)</b>
Course with 4 sessions daily from 9.00 AM to 4.30 PM
<ul style="list-style-type: none"> <li>- Earth architecture (DVD)</li> <li>- Diversity and universality of earth architecture (Slide show on earth architecture in the world)</li> <li>- Sustainability and environmental friendliness – Management of resources (Slide show and lecture)</li> <li>- Basic data on CSEB – Raw material (lecture)</li> <li>- Building with earth in Auroville (Slide show) – Particular earth techniques (Slide show)</li> <li>- Sensitive analysis of soils (practical)</li> <li>- Production of compressed stabilised earth blocks (practical)</li> <li>- Ramming a stabilised rammed earth wall (practical)</li> <li>- Building with arches, vaults and domes (Slide show and practical exercises)</li> </ul>
Eligibility: Students of all ages, students of architecture or professionals
Minimum 15 people – Maximum 30 people

<b>AWARENESS PROGRAMME ON EARTH ARCHITECTURE</b> <b>Two-day awareness programme for children (scheduled upon request)</b>
Course with 4 sessions daily from 9.00 AM to 4.30 PM
<ul style="list-style-type: none"> <li>- Earth architecture (DVD)</li> <li>- Diversity and universality of earth architecture (Slide show on earth architecture in the world)</li> <li>- Sustainability and environmental friendliness – Management of resources (Slide show and lecture)</li> <li>- Building with earth in Auroville (Slide show)</li> <li>- Sensitive analysis of soils (practical)</li> <li>- Production of compressed stabilised earth blocks (practical)</li> <li>- Building arches (practical)</li> </ul>
Eligibility: Students below 15 years old
Minimum 15 people – Maximum 30 people

<b>AWARENESS PROGRAMME ON EARTH ARCHITECTURE</b> <b>One and a half-day awareness programme (scheduled upon request)</b>
Course with 4 sessions the first day from 9.00 AM to 4.30 PM and 2 the second day morning
<ul style="list-style-type: none"> <li>- Earth architecture (DVD)</li> <li>- Diversity and universality of earth architecture (Slide show on earth architecture in the world)</li> <li>- Sustainability and environmental friendliness (lecture)</li> <li>- Building with earth in Auroville (Slide show) – Particular earth techniques (Slide show)</li> <li>- Sensitive analysis of soils (practical)</li> <li>- Production of compressed stabilised earth blocks (practical)</li> <li>- Building arches (practical)</li> </ul>
Eligibility: Students of all ages, students of architecture or professionals
Minimum 15 people – Maximum 30 people

<b>AWARENESS PROGRAMME ON EARTH ARCHITECTURE</b> <b>One and a half-day awareness programme for children (scheduled upon request)</b>
Course with 4 sessions the first day from 9.00 AM to 4.30 PM and 2 the second day morning
<ul style="list-style-type: none"> <li>- Earth architecture (DVD)</li> <li>- Diversity and universality of earth architecture (Slide show on earth architecture in the world)</li> <li>- Sustainability and environmental friendliness (lecture)</li> <li>- Building with earth in Auroville (Slide show) – Management of resources (Slide show and lecture)</li> <li>- Sensitive analysis of soils (practical)</li> <li>- Production of compressed stabilised earth blocks (practical)</li> <li>- Building arches (practical)</li> </ul>
Eligibility: Students below 15 years old
Minimum 15 people – Maximum 30 people

<b>AWARENESS PROGRAMME ON EARTH ARCHITECTURE</b> <b>One-day awareness programme (scheduled upon request)</b>
Course with 4 sessions from 9.00 AM to 4.30 PM
<ul style="list-style-type: none"> <li>- Earth architecture (DVD)</li> <li>- Diversity and universality of earth architecture (Slide show on earth architecture in the world)</li> <li>- Sustainability and environmental friendliness - Building with earth in Auroville (Slide show)</li> <li>- Particular earth techniques and building with arches, vaults and domes (2 Slide shows)</li> <li>- Production of CSEB (practical)</li> </ul>
Eligibility: Students of all ages, students of architecture or professionals
Minimum 15 people – Maximum 30 people

<b>AWARENESS PROGRAMME ON EARTH ARCHITECTURE</b> <b>One-day awareness programme for children (scheduled upon request)</b>
Course with 4 sessions from 9.00 AM to 4.30 PM
<ul style="list-style-type: none"> <li>- Earth architecture (DVD)</li> <li>- Diversity and universality of earth architecture (Slide show on earth architecture in the world)</li> <li>- Sustainability and environmental friendliness - Building with earth in Auroville (Slide show)</li> <li>- Production of CSEB (practical)</li> <li>- Building with arches (practical)</li> </ul>
Eligibility: Students below 15 years old
Minimum 15 people – Maximum 30 people

<b>AWARENESS PROGRAMME ON EARTH ARCHITECTURE</b> <b>Half-day awareness programme (scheduled upon request)</b>
Course with 3 sessions in the morning from 9.00 AM to 12.30 PM
<ul style="list-style-type: none"> <li>- Video and slide show on earth architecture in the world</li> <li>- Building with earth in Auroville and particular earth techniques (Slide show)</li> <li>- Sustainability and environmental friendliness and management of resources (lecture)</li> <li>- Production of compressed earth blocks (practical)</li> </ul>
Eligibility: Students of all ages, students of architecture or professionals
Minimum 15 people – Maximum 30 people

<b>AWARENESS PROGRAMME ON EARTH ARCHITECTURE</b> <b>Half-day awareness programme for children (scheduled upon request)</b>
Course with 3 sessions in the morning from 9.00 AM to 12.30 PM
<ul style="list-style-type: none"> <li>- Diversity and universality of earth architecture (DVD on earth architecture in the world)</li> <li>- Sustainability and environmental friendliness – Building with earth in Auroville (Slide show)</li> <li>- Sensitive analysis of soils (practical)</li> <li>- Production of compressed stabilised earth blocks (practical)</li> <li>- Building arches (practical)</li> </ul>
Eligibility: Students below 15 years old
Minimum 15 people – Maximum 30 people