

Sustainable Energy Development Authority Malaysia (SEDA Malaysia)

Galeria PjH, Aras 9, Jalan P4B, Persiaran Perdana, Presint 4, 62100 Putrajaya **T**: +603 - 8870 5800 **F**: +603 - 8870 5900 **E**: info@seda.gov.my

COURSE SCHEDULE

SEDA Malaysia Off-Grid Photovoltaic (OGPV) Systems Design Course

| DAY | TIME | SUBJECT | DESCRIPTION |
|-----|-------------|----------|--|
| 1 | 0900 ~ 0930 | Lecture | Welcoming and Course Outline |
| | 0930 ~ 1030 | Lecture | Introduction and overview of OGPV Systems |
| | 1030 ~ 1050 | Break | Refreshment is provided |
| | 1050 ~ 1245 | Lecture | Review of electricity; Review of earth-sun geography |
| 1 | 1245 ~ 1400 | Break | Lunch is provided |
| | 1400 ~ 1700 | Lecture | Basic solar engineering: earth-sun collector geometry; Availability of solar energy |
| | 1700 ~ 1720 | Break | Refreshment is provided |
| | 0900 ~ 1030 | Tutorial | Exercises based on previous work |
| | 1030 ~ 1050 | Break | Refreshment is provided |
| | 1050 ~ 1245 | Lecture | Photovoltaic technology: Introduction; PV cells; Modules; Datasheets; Standards; Array configuration |
| 2 | 1245 ~ 1400 | Break | Lunch is provided |
| | 1400 ~ 1700 | Lecture | Grid interactive inverter: Introduction; Types; Datasheets; Standards |
| | 1700 ~ 1720 | Break | Refreshment is provided |
| 3 | 0900 ~ 1030 | Tutorial | Exercises based on previous work |
| | 1030 ~ 1050 | Break | Refreshment is provided |
| | 1050 ~ 1245 | Lecture | Design and sizing of OGPV systems: Solar and load assessment; Matching of battery to load; Dimensioning of PV to battery |
| | 1245 ~ 1400 | Break | Lunch is provided |
| | 1400 ~ 1700 | Lecture | Design and sizing of OGPV systems: continue |
| | 1700 ~ 1720 | Break | Refreshment is provided |

Version: 1911/OGPV/COURSE_SCHEDULE



Sustainable Energy Development Authority Malaysia (SEDA Malaysia)

Galeria PjH, Aras 9, Jalan P4B, Persiaran Perdana, Presint 4, 62100 Putrajaya **T**:+603 - 8870 5800 **F**:+603 - 8870 5900 **E**:info@seda.gov.my

| DAY | TIME | SUBJECT | DESCRIPTION |
|-----|-------------|--------------|--|
| 4 | 0900 ~ 1030 | Tutorial | Exercises based on previous work |
| | 1030 ~ 1050 | Break | Refreshment is provided |
| | 1050 ~ 1245 | Lecture | Design and sizing of OGPV systems: BOS components |
| | 1245 ~ 1400 | Break | Lunch is provided |
| | 1400 ~ 1500 | Lecture | Design and sizing of OGPV systems: continue |
| | 1700 ~ 1720 | Break | Refreshment is provided |
| 5 | 0900 ~ 1030 | Practical | Exercises based on previous work |
| | 1030 ~ 1050 | Break | Refreshment is provided |
| | 1050 ~ 1215 | Practical | Appreciation of lightning protection system (LPS): Air termination; LPS for small systems & large systems; Indirect lightning; LPS materials |
| | 1215 ~ 1445 | Break | Lunch is provided |
| | 1445 ~ 1700 | Practical | Installation; Testing & Commissioning (T&C); Acceptance; Operation, Maintenance and Fault Finding |
| | 1700 ~ 1720 | Break | Refreshment is provided |
| 6 | 0900 ~ 1030 | Practical | Solar assessment; PV module measurements; Wiring; T&C |
| | 1030 ~ 1050 | Break | Refreshment is provided |
| | 1050 ~ 1245 | Practical | Solar assessment; PV module measurements; Wiring; T&C |
| | 1245 ~ 1400 | Break | Lunch is provided |
| | 1400 ~ 1700 | Practical | Solar assessment; PV module measurements; Wiring; T&C |
| | 1700 ~ 1720 | Break | Refreshment is provided |
| 7 | 0900 ~ 1030 | Practical | Solar assessment; PV module measurements; Wiring; T&C |
| | 1030 ~ 1050 | Break | Break |
| | 1050 ~ 1245 | Practical | Solar assessment; PV module measurements; Wiring; T&C |
| | 1245 ~ 1400 | Break | Break |
| | 1400 ~ 1700 | Open Session | Open session |
| | 1700 ~ 1720 | Break | Refreshment is provided |

Version: 1911/OGPV/COURSE_SCHEDULE



Sustainable Energy Development Authority Malaysia (SEDA Malaysia)

Galeria PjH, Aras 9, Jalan P4B, Persiaran Perdana, Presint 4, 62100 Putrajaya **T**:+603 - 8870 5800 **F**:+603 - 8870 5900 **E**:info@seda.gov.my

| DAY | TIME | SUBJECT | DESCRIPTION |
|-----|-------------|-------------|--|
| | 0900 ~ 1030 | Exam | Practical [one-on-one demonstration and interview] |
| | 1030 ~ 1050 | Break | Break |
| 0 | 1050 ~ 1245 | Exam | Practical [one-on-one demonstration and interview] |
| 8 | 1245 ~ 1400 | Break | Break |
| | 1400 ~ 1700 | Exam | Practical [one-on-one demonstration and interview] |
| | 1700 ~ 1720 | Break | Refreshment is provided |
| 9 | 0900 ~ 1030 | Exam | Practical [one-on-one demonstration and interview] |
| | 1030 ~ 1050 | Break | Break |
| | 1050 ~ 1245 | Exam | Practical [one-on-one demonstration and interview] |
| | 1245 ~ 1400 | Break | Break |
| | 1400 ~ 1700 | Exam | Practical [one-on-one demonstration and interview] |
| | 1700 ~ 1720 | Break | Refreshment is provided |
| 10 | 0900 ~ 1200 | Examination | Part B (Design) - Comprehensive Open Book |
| | 1200 ~ 1500 | Break | Lunch is provided |
| | 1500 ~1600 | Examination | Part A (Fundamental) – Comprehensive Open Book |
| | 1600 ~1630 | Break | Refreshment is provided |

Version: 1911/OGPV/COURSE_SCHEDULE