CURRICULUM VITAE

1. **First names:** Mazen
2. **Family name:** Chanar
3. **Date of birth:** 12/2/1963
4. **Nationality:** Syrian
5. **Place of residence:** Damascus - Syria
6. **Contact** Solartech.chanar@gmail.com Mob: Mainly 00963988513643
7. **Civil status:** Married

8. Education:

INSTITUTION [DATE FROM – DATE TO]	DEGREE(S) OR DIPLOMA(S) OBTAINED:
UNIVERSITY: DAMASCUS 1990	BACALORIOS IN ELECTRON ENGINEERING

9. Language skills: Indicate competence on a scale of 1 to 5 (1 – excellent; 5 – basic)

LANGUAGE	READING	SPEAKING	WRITING
Arabic	mother tongue		
English	5	3	4

10. Membership of professional bodies:

- Membership of network of SHAMCI

11. Other skills: (e.g. computer literacy, etc.)

- Microsoft office, Eagle Program.
- Good working on Pv System Program In addition to working on a personal solar calculations program on Excel
- Deep understanding on PV ingot/wafer/cell/module technology, with knowledge on solar system design preferred
- Deep experience in solar calculations feasibility studies.
- Deep experience on different kinds of inverters (on/off grid inverters, hybrid inverters and pumping inverters) and storage energy (Lithium, flooded and gel batteries.)
- Outstanding presentation skills and previous experience in trainings for engineers and juniors
- Great communication and and coordination with manufacturers, quality bodies and customers
- Engineering degree with 10 years working experience in Solar module or other related industry
- Travel to customer, industry conferences, or project site as needed.
- Responsibility managing own schedule working from home office
- designing, installing and operating solar PV systems (on grid, off grid, Solar PV Water Pumping System)
- Installing and operating controllers of SWHs systems.
- Training on solar water heating systems.
- Training on solar PV systems.
- Training on thermograph.

12. Present position: Consultant of A.S.T.E & NERC

13. Years within the firm: 1

14. Key qualifications (relevant to the assignment):

- A certified license from Syrian engineers Syndicate to practice energy services - 2017.

- A national Project Coordinator for 16 Arab States members of Quality Bodies (certification bodies, Inspection Bodies and testing facilities in all Arab states), manufacturers & suppliers in terms for meeting quality solar energy systems in Arab markets.
- Avery good experience in:
  - Solar energy systems quality (SHAMCI, Solar Keymark)
  - Arab SWH markets and manufacturing.
  - Designing of solar thermal systems.
  - Designing pv systems (On grid, Off grid, Solar Pumping Systems).
  - Energy efficiency: energy audit, energy visibility studies.
  - Electrical quality power: harmonic, power factor, transient states.
  - Training of engineering personnel for EE & RE.
  - Coordinate among public establishments and the stakeholders in private sector in RE& EE fields.
  - Leading RE & EE projects.
  - Regulating training courses of quality solar systems.
  - Regulating Workshops, Seminars and conferences related to RE & EE.
  - Setting TORs and evaluating technical offers of PV systems: street lighting, A Grid-tie, off grid and pumping water.
- 12 years of professional experience in installation PV Systems (850 Kwp installation in Syria).
- 20 years of professional experience in installation SWHs (2500 m^2 installation in Syria).
- Supervising on the biggest Solar thermal system project in AL- Mowassa Hospital at Damascus (32000 L/Day).
- A good experience in PV solar systems designing, installing, operating (off grid and on grid, solar pumping).
- Supervising on the projects 300 KWp solar PV in ministry of electricity and NERC.

15. Specific experience in the region:

COUNTRY	DATE FROM –DATE TO
Syria	**Since 1990-1999** **Medium and high voltage department** Work in the Ministry of Electricity - in the General Organization for the generation and transmission of energy – energy transfer Directorate. • Following up the parameters of the grid on a daily incoming from high, medium and transforming voltage stations. • Downloading all schemes of high voltage generation & transforming stations plants with the identities of their electrical elements (transformers, circuit breaker, ...) on pc (Personal effort). **1999-2001** **Directorate of Execution** • Designing electronic boards for transforming stations. **2001-2002** **Planing and conservation energy project** • Attendees Training Courses in EE, RE in Egypt. • Representation of the Syrian Arab Republic at the second International energy Conference in Armenia – Yerevan. • Chairman of the Commission to improve the efficiency of the Syrian Refrigerators: where was the great results of coordination with the leading manufacturers of refrigerators in Syria to: a- withdraw samples of refrigerators. b- Testing. c- Announcement of the test results. • Installation of compact lamps in the temples and execution of feasibility study. • Participated in several energy audits in industrial plants. **2003-2005** **Head of Energy services department in Electricity ministry** • Fulfilment and supervising on **300 audit studies** through a plan has been set for the industrial facilities, and supervising on carrying out the 100 studies in industrial, tourism and healthy sectors..Providing marketing consultancy of SWH. • Participated in following up the energy reports (Demand and consumption) of industrial plants. • Leading of conservation consumption of Syrian refrigerators committee. • Installation and designing 100 m^2 of Solar water systems in Syria. **2006-2009** • Designing solar thermal system (21 collectors (30 ET) of Heat pipes) of heating and heating water for building of 8 flats. • Installation and designation 1500 m^2 of solar water system (ET& FP) in Syria. • Marketing solar water heaters. **2009 – 2012** **Head of RE Department in of National Energy Research Centre NERC** • Supervising on a large Scale project of Solar thermal system for producing 32000 L/D in Al Mowasaa - central hospital – Damascus. • Designing and supervising on SWH project in Damascus for building of 54 flats. • Supervision on installing, designing and operating 300 KWp on grid on NERC's roof and on electricity ministry's building. • Head of committee for preparing TOR and evaluation the tech offers of pv system for lighting 3km street • Design& execution 3 solar projects in Damascus rural for swimming pool & heating building. • Design& execution SWH project for heating water (4 m^3) in Damascus rural for restaurant of mole. • Coordinating & supervising Course training "design& Installation of Large Scale Solar Thermal Systems" in cooperation with GTZ & RENAC.

COUNTRY	DATE FROM –DATE TO
Egypt	**2014-2015** **Head of SHAMCI project in RCREEE** • Coordinating with 16 representatives of Arab states of SHAMCI Network* for holding meetings and executing decisions of CHAMCI network • Achievement of studies in Arab markets of SWHs. • Building capacity for Arab members of Arab States in quality SWHs: a- Organising and online training in quality SWH supported by UNEP b- Organising a course training "QUALITY CONFORMANCE OF COLLECTORS AND SYSTEMS AS PER THE SHAMCI RULES" for the Arab states in Tunis. • Participation in workshops and meetings related EE in Arab region. • Following up website of CHAMCI • Supervision on setting up of CHAMCI rules. • Cooperation with UNEP in Knowledge of SWHs. • Cooperation with IEA in task 43. • Cooperation with SEKEM ENERGY GmbH in training of CHAMCI scheme. • Evaluating testing facilities and certification bodies of Tunis, Libya, Egypt, Jordan, and Lebanon for meeting the conditions of SHAMCI. • Setting up and leading the conference of SHAMCI in Beirut sep 2014 with sharing of the Arab manufacturers (solar water heaters) and experts • Setting up the agreements between RCREEE (SHAMCI) and certification bodies. • Setting up a mutual agreement between RCREEE and Solar Keymark.
Damascus	**2016 – 2017** **Head of EE & RE department-Techno power** • Studying On grid and off grid projects. • Studying and supervising solar pumping water projects. • Installing and operating off-grid solar PV systems in rural of Damascus
	2017-2019 A consultant of Al Shatta for Technical Engineering A.S.T.E for PV systems projects in Syria • A consultant of National Energy Research Centre NERC for subsidy the manufacturers to invest solar energy in Adra (industrial city) in their plants.
	2019-2021 • Designing and supervising on many Pv projects. • Training engineers on PV systems in Al Reda Institute.
	2021-2022 Senior expert in Al Diwan United Group • Supervising on around 625 Kwp PV pumping systems.

16. Professional experience:

DATE FROM – DATE TO	LOCATION	COMPANY	POSITION	DESCRIPTION
2003 - 2005	Syria	Ministry of Electricity	Head of energy services department	**Planing and conservation energy project** Based on global trends on the reduction of greenhouse gas emissions in line with the state's plans to improve energy efficiency at the national level that achieve significant economic savings and improve local environmental conditions. The Ministry of Electricity in collaboration with UNDP, the United Nations and the Global Environment Facility planning and energy conservation project where the total costs of the project were 41755000 US dollars was contributed financing by both the Global Environment Facility and UNDP United Nations and the OPEC Fund, in addition to the Syrian government, for full rehabilitation of the power plant Banias thermal, as well as other in-kind contributions of offices providing the necessary technical and administrative elements. The project was five years (2000 -2005) provided that the end of project the National Energy Research Center should be established, includes : Renewable Energy Directorate and the Directorate of energy efficiency. The project runs a higher committee chaired by the Coordination Deputy Minister of Electricity and director of a national project. Project Objectives: Energy services directorate Provides energy efficiency services at lowest possible cost to facilities , in addition to the program of industrial efficiency, which provides economic viability and improvements in technical and energy studies in the major industrial facilities through a program to improve the efficiency of boilers and steam and program of reducing losses of steam systems and improve electric motor efficiency, improvement Power factor, and technical training programs in which trainees previous programs to train another group Add to develop a plan to perform the work of the Directorate and developed over the long term. 300 studies energy audit has been implemented, 100 detailed studies energy audit of them on the industrial and health facilities. in addition to execution more than 40 studies have resulted annual savings of $ 100,000 as supported prices, which equivalent to $ 500,000 / year as world prices. Included those thermal and electrical opportunities and installation Solar thermal systems
2005 - 2006	Syria	Development technology & scientific centreTDC	Consultant	Marketing Solar water heaters TDC is a company import Solar water sytem (Tank + flat plat collectors).

DATE FROM – DATE TO	LOCATION	COMPANY	POSITION	DESCRIPTION
				Consist of Technical department, financial Department and maretketing department. • Member of the Board of Directors • Participating to elaborate of plans. • Elaborating specifications of SWH according to international standards • Promoting using of SWHs in different syrian governorates by presentations of SWH at Engineers Syndicates in Syria. • Training the installers of SWHs. • Participation and Regulation of SWHs fairs. • Preparing and submitting Technical & financial offers relevant sides.
2006-2009	Syria	Manger of solar thermal Center (My office)	Program National Coordinator	• Centre for designing solar thermal system for industrial, residential and tourism Sectors. • Carrying out SWH and Solar thermal system projects. • Provide the consultations as feasibility studies.
2010 2011	Syria	National Energy Research Centre NERC	Head of Renewable Energy Department	NERC: is research centre in RE & EE for: Preparation of studies and integrated research that helps policy-making and appropriate strategies and long-term plans to achieve the advantage of the available energy sources and suggest different alternatives to meet the economic and social development requirements in coordination and cooperation with other stakeholders related to energy matters. 2. Survey new sources of renewable energies and straightened and propose the necessary plans for the use and development of studies and technical research, economic and environmental related, either by the centre or in cooperation with the scientific community inside and outside the country. 3. Implementation of the experimental pilot projects in the field of new and renewable energies both by the centre and in association with others and to entrust him to implement all or some of them, and follow-up investment proposal and what it takes to develop technically and economically. 4. Proposal Syrian standard specifications for systems and elements of the new and renewable energies for the adoption, and conduct scientific tests to evaluate the performance of local and imported equipment and systems and issuing validity certificates. ========== • Elaborate the annual planes for renewable energy department (Wind, Solar thermal & PV and Biomass) .

DATE FROM – DATE TO	LOCATION	COMPANY	POSITION	DESCRIPTION
				• Particiapate in settting up of term of refernces for RE projects. • Particapate in meetings of Boarddirectors. • Supervising on carying out of the projects. • Supervising on training program.
2014 - 2016	Egypt	Regional Centre of Renewable Energy and Energy Efficiency	Manager of SHAMCI Program	**Solar heating Arab Mark and Certificate Initiative SHAMCI** SHAMCI was initiated by RCREEE with the support of the Arabian Industrial Development and Mining Organization (AIDMO) based on the Arab Ministerial Council of Electricity (AMEC) of the League of Arab States request. AMCE blessed the establishment of the network and initially accepted SHAMCI certification rules. Till this date, five Arab countries (Jordan, Tunisia, Lebanon, Libya and Egypt) have shown interest to have SHAMCI implemented at the national level SHAMCI Network is an international stakeholder network which is responsible for developing and running SHAMCI. Network members are representatives from energy authorities, industrial sector, certification bodies, testing and inspection bodies, consumers, NGOs, international organizations, and other concerned stakeholders. The network members are taking charge of the following activities: • Developing and updating the certification standards and scheme. • Harmonizing certification practices and processes. • Approving and listing certified products. • Organizing regular network meetings and facilitating communication between stakeholders (in general twice a year). • Selecting, verifying, and monitoring of test laboratories and ensuring results accuracy. • Definition of working rules for the SHAMCI Network • Organise regular meetings of the SHAMCI Network (in general twice a year)

DATE FROM – DATE TO	LOCATION	COMPANY	POSITION	DESCRIPTION
				• Organise any extraordinary meetings of the SHAMCI Network • Exchange of experience and harmonisation of procedures • Definition of guidelines how to proceed in cases where the available standards and scheme rules are unclear, outdate, limited in scope, inappropriate or not detailed enough • Improve and further develop the SHAMCI scheme rules • Act as a clearing body in case of complaints, disputes and appeals, related to the certification activities • Organise peer assessment activities • Organise round robin testing to assure quality of test results from all testing laboratories • To approve the balance and to plan the budget for the SHAMCI Network fees • Building capacity for Arab members in quality SWHs.
2016-2017	Damascus	Techno Power Systems	Executive Manager	• Preparing terms of reference of pv systems and SWH systems. • Marketing PV and SWHs • Designing PV and SWHs systems • Supervising on projects of PV and SWH systems. • . Sharing in training program for energy services offices with Damascus syndicate.
2017 - 2019	Damascus	A.S.T.E	Consultant for EE & RE projects	• Study 650 KWP PV of HAMAC college (Technical, financial) for meeting the term of reference issued by NERC. • Setting up the specifications of PV systems for importing whole devices and modules of system.
2018-2019	Damascus	NERC (National Energy Research Centre)	Consultant for EE & RE energy Initiatives	• Setting up initiative to support industrial sector for investing the solar energy in production processes. • Setting up a study for applying pv & SWHs in industrial Adra city in cooperation with NERC. • Coordinating with the banks, NERC and stakeholders for subsidy the manufacturers to help them investing solar energy systems.
2019	Damascus	Damacell	Director of EE & RE department	• Studying 130 kWp solar pumping project for Al Badia Cement plant in Al Dumayr- rural of Damascus • Studying & installing 7.5 kWp solar pumping and 5 kwp off gride in Sabbora –rural of Damascus • Studying and installing 20 kWp off grid.

DATE FROM – DATE TO	LOCATION	COMPANY	POSITION	DESCRIPTION
2019 -2020	Abu Dhabi		Participant	• Attending World Energy Congress
2020-2021	Syria		Manager of project	• Doing a training course for engineers on photovoltaic energy systems • Doing many seminars in the countryside of Damascus. • Executing a number of PV projects: - 20 ,15and10 Hp of pumping project in Serghaia - 15 kw for sewing factory in Suhnaia - 15 kw for Villa in Yabroud - 15 kw for Villa in khan Al Shieh
2022	Syria	Al Diwan United Group	Sr.Technical Manger	• Studies design and supervising around 625 kwp for 8 solar pumping projects in Syria • . Study design and supervising around 39 kwp off grid projects. • Many lectures of RE & EE in Syria. • Executing training designing Pv systems for 14 Engineers in cooperation with TUV SUD-Dubai
2023	Syria	Al Diwan United Group	Sr.Technical Manger	• Executing training designing Pv systems for 16 Engineers in cooperation with TUV SUD-Dubai • Studies design and supervising around 114 kwp for 2solar pumping projects in Syria • . Studies design and supervising around 100 kwp off grid projects. • Inventing a unique system in the world that combines two solar systems into one system • Excuting 210 Kwp pumping solar in Latakia.
2024	Syria	Engineers Syndicate	Consultant	• Implementing a training course on designing photovoltaic systems for 25 engineers, with the award of an Adam Academy certificates (Denmark). • Implementing a training course on designing photovoltaic systems for 13 engineers, with the award of an Adam Academy certificates (Denmark).

17. Other Trainings:

1. Introductory PSS/E users course 7/11/1996
2. 2. A training course in the field of planning and energy conservation in Alexandria Egypt, 2001Attendance and presentation at the " second international energy conference in Armenia 15-18 april,2002.
3. Energy efficiency & standards for appliance and lighting from: Energy & environment research centre.2003
4. Study tour 2004 " energy saving in residential and commercial buildings in Germany from IPROPLAN Germany

5. Syrisch- deutscher workshop auf den gebietenelectrotechnik,E-Learning und komminikation from Aleppo university 2004
6. "Training programme in the field of energy conservation in Syria" from university of Athena 2005
7. 3rd regional workshop " business opportunities for cdm project development in the Mediterranean" synergy programme of the European commission. 2005
8. Supervising on training Course in ISO9001:Damascus 2009; BSI
9. Supervising on training seminar on "Design & Installation of Large Scale Solar Thermal Systems" 2010 from RENAC
10. "Power quality analyzer training" 2011 from FLUKE.
11. Participate in the training of Engineers in the Engineers Syndicate for Energy Services Offices (SHAMCI program) May-2017

Others (publications):

- **Lectures:**

1. Energy Audit in industrial sector.
2. Power factor in electric grids.
3. The harmonics &transient cases in electric grids.
4. Lighting concept.
5. Early detection of malfunctions and defects diagnosis construction by thermography.
6. Solar Technology Development in Syria.
7. The scientific basis for the application of SWH systems.
8. Systems for industrial applications solar water *heating.*
9. SWH project -Muwasa hospital.
10. Quality of Solar Water Heaters.
11. SOLAR HEATING ARAB MARK CERTIFICATION INTIATIVE
12. Report on JISM & Jordan market readiness for SHAMCI Program investigatory visit to Amman
13. PV solar systems applications.
14. PV solar systems design.
15. Specifications of batteries.
16. Participating training the engineers in Syrian syndicate for services energy.
17. Many interviews of RE&EE and solar PV systems on Syrian channels
18. Holding course trainings in solar pv

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Proposal of PV modules quality

A Quality Certification, Standards and Tests for PV Systems are essential in Arab markets which has mostly have pv panels non corresponding with the declared specifications.

The need of quality rules of the PV systems is increasing day by day in Arab region Such As SHAMCI scheme especially that many of manufacturers of PV modules has already founded in: Egypt, Jordan, Syria, UAE, Saudi Arabia, Algeria and Morocco.

Therefore the suggested scheme of PV systems quality is similar to the steps of SHAMCI rules by adding the standards of PV Systems as a scheme for the PV systems.

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