In the Name of Allah

CV of Ali Ahmadi
Personal Information: First Name: Ali, Family Name: Ahmadi, Status: Male, Marital Status: Marriage, Date and place of birth: 23rd Aug. 1972, Iran Nationality: Iranian, Children: Two, Military Service: Performed
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Abstract of Ali Ahmadi resume:

I have been worked in the field of maintenance, repairing, manufacturing, overhauling, rehabilitation, reconditioning, QA/QC (quality assurance and quality control), non-destructive tests (NDT), destructive tests, remaining life time assessments, failure analysis, fracture mechanics, welding, and heat treatment of power plants components more than 21 years.

I worked for three companies and one university since July 1997 to present, Iran Power Plant Repairs Company (IPRCo.) for 21 years, Tarh Negasht Company, and Shahid Karimi Complex Industries and also Ilam University. At the IPRCo, I worked as a mechanical engineer to be as a manager. IPRCo is responsible for the mechanical and electrical scope of works for overhaul, maintenance, repair, and manufacturing of power plants and other related heavy industries. IPRCo is the best known company for repairs, maintenance and overhaul of power plants in Iran. I have been earned valuable experiences in all aspects of power plants repairs and manufacturing components.

At second and third company, I worked as a mechanical engineer for design, manufacturing, quality control, and reverse engineering of systems and components for passenger cars, trains, and off-road machineries. And also I was a lecturer of Ilam University for three semesters.

I am very hard working person and first of all I study the books and papers and think to find the best solution. I have various roles and responsibilities such as:

- **As a manager of Research and Development Department.**
- **As a senior research engineer (remaining life time assessments of thermal power plant components).**
- **As a senior research engineer (failure analysis and fracture mechanics of power plant components).**
- **As a senior engineer and also manager of Quality Control.**
- **As a manager of Production and Manufacturing.**
- **As a Deputy of managing director (Projects Deputy or Projects Coordinator).**
- **As a project planning and execution manager, technical adviser, project supervision, site and workshop service engineer (manufacturing, repair, overhauling, rehabilitation, QC, NDT and fact finding).**

I am available at any time you need my services and flexible as to the location of assignment. Willingness and ability to travel to international locations as needed, and required by project needs. Of course I will be happy to provide you with detail and additional information upon request. Some information as follow:

Education:

- **Master of Science (MSc.), Mechanic of Agricultural Machinery, Tarbiat Modares University, Tehran, Iran. Start date: September 1996, Graduation date: May 1999, GPA: 17.00 / 20.00, Thesis topic: Design of the final drive of tractor MF285**
- **Bachelor of Science (BSc.), Agricultural Machinery (Power and Machinery), Urmia University, Iran. September 1992, to June 1996, GPA: 15.18 / 20.00.**

Technical Reports and Research Studies:

- **Research Studies on the field of Power Plant:**
  1. **Gas turbine performance calculation (Based on ASME PTC and ISO Standard).**
  2. **Evaluation of gas turbine cycle (Thermo flow Software).**
  3. **Maintenance and planning for power plant overhauling (boilers, gas turbine, and steam turbine).**
  4. **Risk based inspection and fitness for services on the field of power boilers based on ASME and API.**

5. Rigid and flexibility rotors balancing (Site and workshop balancing), vibration analysis and rotor dynamics.
6. Quality control of gears, spline, bolts and nuts, rotor body of generator and steam turbine, disc of compressor and gas turbine, and also steam turbine and compressor blades.

- Life Assessment projects:
  1. Prepare more than 50 projects in the field of remaining life time evaluation of gas/steam turbine and boiler critical components such as power plant with capacity of 440 MW (BBC, Deutsche Babcock), 368 MW (Hitachi and Stein), 325 MW (Dongfang China), 320 MW (Franco Tosi), 315 MW (LMZ, Electrosila, Taganrog), 250 MW (MHI and IHI), 150 MW (BBC)for Iranian Power Plants(Islamabad Esfahan, Shahid Rajai, Bandar Abass, Tabriz, Neka, Ramin), IPRCo, 2000-2008 (For example: Remaining life evaluation of turbine and boiler critical components, 250 MW Shahid Rajai Power plant unit 2, Technical Report, March 2004, IPRCo.).
  2. Research on the field of remaining life time of power boiler (ASME, DIN, TRD, and API Code).
  3. Research on the field of remaining life time of rotors and discs.
- Failure Analysis projects:

  Prepare more than 20 technical project reports in the field of Failure analysis of gas/steam turbine, generator, pump, fan, and boiler critical components, IPRCo, 2000-2008(for example: Failure analysis of fan blades of generator, 120 MW Montazer Ghaem Power plant unit 6 (GE Gas Turbine), Final report, September 2003, IPRCo.). Failure analysis of gas and steam turbine blades and rotors.
- Fracture Mechanics, Failure Analysis, and Fractography of power plant components (Based on Research and study of ASM Handbook and EPRI Documents).
- Design and calculation projects:
  - Evaluation and selection of components for power train systems of off-road machineries, design and selection of components, cabin, seat, and dashboard systems (human and ergonomic factors), Effective parameters of engine selection, design and selection of components, power train systems, and calculation of traction force and track and also selection of track system components, Trencher, Tarh Negasht Company, Tehran, Iran, 1996-2000.
  - Evaluation of economical for exportation of Iranian passenger cars to middle east, Tarh Negasht Company, Tehran, Iran, 1999.

Practical and Laboratories Experiences:

- Establishment of mechanical, metallurgical, and metrology laboratories.
- Installation and assembly of machines and working with them, such as hardness machine, portable hardness, ultrasonic device, ultrasonic gauge, material analyzer, metrology devices, laboratory furnace, cutting, polishing, and mounting machines, light microscope, stereo microscope, metallurgical image analysis.
- Experimental working (Installation, setting, and calibration) with load cell, LVDT, Potentiometer, strain gauge, accelerometer, and eddy current sensor.
- Quality Control of Power Plant Projects: Prepare Documents, Forms, Procedure, ITP, and Quality Control of Power Plant Projects in the field of gas/steam turbines, boilers, and generators components.
- Manufacturing projects: Re-engineering, Documentations, Manufacturing processing more than 10 projects in the field of gas turbine (compressor blades) and steam turbine blades, and …

Papers, Presentation and Technical Training Workshop and Seminars:

More than 25 Papers in the field of Remaining Life Time Assessment, Repairs, Welding, & Failure Analysis of Power Plants Components.

1. Rezvani. Elias, Khosravani. Hassan, and Ahmadi. Ali, The Site repair of the fourth row stationary blades of the gas turbine by welding method and simultaneous heat treatment, the 7th Conference of Users of Gas Turbine Units and Combined Cycles, Siemens Gas Turbine Model V94.2, Iran, 2017.
2. Ahmadi, Ali, Investigation of Turbine Shell and Casings Repair Methods, The First Technical Seminar on Small Gas Turbine Units (Gas Turbine GE F5), Tarasht Power Plant, Iran Power Generation, Transmission and Distribution Management Company (Tavanir), Iran, January 5, 2011.
3. Ahmadi. Ali, Application of non-destructive tests in power plant condition monitoring, the first technical seminar on power plant condition monitoring, Tarasht Power Plant, Iran Power Generation, Transmission and Distribution Management Company (Tavanir), Iran, October 5, 2010.

4. **Ahmadi. Ali, A Comparative Study between Methods of rotor repair for Power Plant Turbine Rotors, The Second Technical Seminar on Gas Turbine GE F9E, Tarasht Power Plant, Iran Power Generation, Transmission and Distribution Management Company (Tavanir), Deputy of Coordination and Production, Iran, December 15, 2009.**
5. **Ahmadi. Ali, Straighten a bowed steam turbine rotor, Rotor of combined cycle of Montazer Ghaem power plant with local spotting operation (Hot spotting), the Second National Conference of Power Plants, Iran, February 2009.**
6. **Ahmadi. Ali, The Effect of Alloy Elements on Tempering Parameters (Temperature and Time) on the Turbine Rotor Journal Area, Unit 2 of Bushehr GE Gas Turbine, The Second National Conference of Power Plants, Iran, February 2009.**
7. **Ahmadi. Ali, Evaluation and investigation of boiler super heater tubes of a 320 MW unit, the 24th International Electricity Conference, Iran, November 2009.**
8. **Ahmadi. Ali, Investigation of Destruction Factors (Failure Analysis) in Gas Turbines Components, the Second Technical Seminars of Iran Power Plant Repair Company, Iran, September 13, 2011.**
9. **Ahmadi. Ali, Factors of increasing the hardness of rotor journal area and compiling its repair process by Tempering heat treatment method, GE F5 gas turbine, the 24th International Electricity Conference, Iran, November 2009.**
10. **Ahmadi. Ali, A Comparative Study of Journal Damage Repair Methods Implemented on Some Rotors of Iranian Power Plants, the Second Conference of Power Plants, Tarasht Power Plant, www.epgc.tpp.ir, Qazvin, Iran, 2008.**
11. **Ahmadi. Ali, Razavi, Alireza, A Special Weld-Buildup Procedure for Urgent Repair of Power Plant Rotors, the first rotating equipment conference in the oil and power industry, Iran, June 2008.**
12. **Ahmadi. Ali, Razavi, Alireza, A comparative study between straighten a bowed rotor methods in power plant rotors, the first rotating equipment conference in the oil and power industry, www.iranrotate.com, Tehran, Iran, 2008.**
13. **Nemati, Vahid Reza, Ahmadi. Ali, Investigation of the process of changes and reduction of the thickness of the final super heater and reheater tubes of the 250 MW power boiler, the first national conference of power plants, Imam Khomeini International University, www.epgc-ir.com, Iran, 2008.**
14. **Poursaeidi. Ismail, Ahmadi. Ali, Non-destructive studies of generator cooling fan blades made of aluminum alloy, First International Conference on Technical Inspection and Non-Destructive Testing, Tehran, Iran, November 2007.**
15. **Poursaeidi. Ismail, Ahmadi. Ali, Application of non-destructive testing in assessing the condition and estimating the remaining life of gas turbine rotors. The First International Conference on Technical Inspection and Non-Destructive Testing, Iran, November 2007.**
16. **Poursaeidi. Ismail, Ahmadi. Ali, Evaluation of remaining life of power plant hot parts by computational method using LIFE2 computer program. The first regional conference of mechanical engineering of Islam Azad University, Iran, May 2006.**
17. **Poursaeidi. Ismail, Ahmadi. Ali, Application of condition monitoring and residual life estimation in steam turbine maintenance and repair system, the first Technical seminar on condition monitoring and troubleshooting, Sharif University of Technology, Iran, 2006.**
18. **Poursaeidi. Ismail, Razavi. Alireza and Ahmadi. Ali, straighten of steam turbine rotor bowed (Rotor Bended) of Shazand Arak Power Plant Using Local Heating (Hot Spotting), The First Technical Seminar on Condition Monitoring and Troubleshooting, Sharif University of Technology, Tehran, Iran, 2006.**
19. **Poursaeidi. Ismail and Ahmadi. Ali, Study of stress-strain distribution around the circular opening of a cylindrical shell under bending moment by experimental and numerical methods, 13th International Conference of the Iranian Association of Mechanical Engineers (ISME), Isfahan University of Technology, Isfahan, www.isme.ir, Iran, Spring 2005.**
20. **Poursaeidi. Ismail, Razavi. Alireza and Ahmadi. Ali, Investigation of the causes of increase in Hardness in the surface of power plant rotors and its correction by Tempering heat treatment method, 20th International Conference on Electricity of Iran, Niroo Research Institute, Tehran, Iran, November 2005.**

21. **Poursaeidi. Ismail and Ahmadi. Ali, Failure analysis of generator cooling fan blades, model T240-370, GEC ALSTHOM company, the first Technical Seminar on mechanical of Power Plant and petrochemical industries, Shahid Abbaspour University (University of Power and Water industry), Tehran, 2005.**
22. **Poursaeidi. Ismail, Ahmadi. Ali, Razavi. Alireza, GE Frame 5 gas turbine rotor stub shaft failure analysis, model HITACHI MS5001, the first ttechnical seminar on mechanical of power plant and petrochemical industries, Shahid Abbaspour University, Iran, Spring 2005.**
23. **Ahmadi. Ali and Poursaidi. Ismail, Application of real-time monitoring of remaining life in boiler maintenance system, the first Technical Seminar on mechanical of power plant and petrochemical industry, Shahid Abbaspour University (University of Power and Water industry), Iran, Spring 2005.**
24. **Poursaeidi. Ismail, Ahmadi. Ali and Razavi. Alireza, Methodology for Determining the Remaining Life of Boiler Components, The First Technical Seminar on mechanical of Power Plant and Petrochemical Industries, Shahid Abbaspour University, Iran, Spring 2005.**

Technical Training Workshop:

1. **Ahmadi. Ali, Technical Training Workshop on Destructive and Non-Destructive Tests Methods on Assessments and Remaining Life Time of Main Components of Power Boilers and Steam Turbine Parts, First National Conference on Power Plants, Imam Khomeini International University, www.epgc-ir.com, Iran, 2008.**
2. **Ahmadi. Ali, Technical Training Workshop on Remaining Life Time of Boiler and Turbine Components, 20th International Conference on Electricity, Energy Research Institute, Tehran, Iran, November 2005.**
3. **Ahmadi. Ali, Technical Training Workshop on Experimental Methods in the Failure Analysis of Power Plant Main Components, 20th International Conference on Electricity, November 2005, Energy Research Institute, Tehran, Iran, November 2005.**

Technical Training Seminars:

1. **Ahmadi. Ali, Technical Training Seminar on computational methods for estimating the remaining life of boiler and turbine components, for Iranian power plant experts, Iran Power Plant Repair Company, Karaj, Iran, Spring 2006.**
2. **Ahmadi. Ali, Technical Training Seminar on methods for estimating the remaining life of boiler and turbine components, for experts of Power Plant, Ahvaz Ramin Power Plant, Iran, Spring 2008.**
3. **Koul, Ashok and Ahmadi. Ali, Technical Training Seminar on Residual Life Estimation methods for boiler and turbine components, Iran Power Plant Repair Company and LPTi (Life Prediction Technology Inc.) www.lifepredictiontech.com, for gas power plant experts, Arak Petrochemical, Iran, Spring 2006.**
4. **Ahmadi. Ali, Technical Training Seminar on the Failure Analysis Methods of Power Plant Main Components, for experts of gas power plants, Arak Petrochemical, Iran, Spring 2006.**

My Experiences:

2020 to present: Manager of Research and Development, Iran Power Plant Repairs Company.

Field of our activities are research and development projects on the field of remaining life time assessments, failure analysis, repairing, maintenance, manufacturing, overhauling, rehabilitation, quality control, non-destructive tests, welding, and heat treatment for power plants components.

2018 to 2020: Manager of Quality Control, Full time, Iran Power Plant Repairs Company (IPRCo.), Iran.

Field of activity is Quality Control for maintenance, repairs, rehabilitation, recondition, and manufacturing of all kind of power plants components such as boilers, turbines (steam, gas, hydro, and wind), generators, and transformers components.

Quality control of materials, manufacturing, repair, installation, inspection, testing and documentation activities of all kind of power plant components. Review documents such as procedures, Inspection and test Plan (ITP), Welding Procedure Specification (WPS), Welder Certificate, and non-destructive Examination (NDE) procedure and personnel, visual inspection report and manufacturing data report (MDR), drawings, and dimensional checks.

1. **Reviewed and approved the quality documentation issued by the contractors and clients. Coordinated the surveillance activities through the supply chain, and coordinate the Quality Control activities during maintenance, repair and manufacturing stage day to day basis. Participate in the establishment**

and implementation of a suitable audit program to cover clients and contractor main critical processes. Issued or reviewed contractor nonconformance reports and validate dispositions. Participate in the meeting and in the issuance of weekly report.

2. **Responsible for inspection, checking and monitoring of all activities in all step before, during and after repair and manufacturing as per Inspection and Test Plan, drawing, Welding Procedure Specification, Code and Standard, procedure and approved client specification.**
3. **Inspection of material & goods including of checking & evaluating of purchase order, material certificate and inspection release notes as per project technical specifications and codes.**
4. **Reviewing and evaluating of Welding Procedure Specification (SMAW, SAW, GTAW, GMAW, FCAW processes) & Procedure Qualification Record (PQR) performance according to ASME, AWS, API & project technical specifications, also evaluating destructive tests such as Impact, Tensile, Bend Tests and also Post Weld Heat Treatment (PWHT).**
5. **Inspection of non-destructive testing (Radiography, Ultrasonic, Dye Penetrant, Magnetic Particle). As well Hardness Testing Inspection and Hydrostatic & Pneumatic Leak Test Inspection, afterwards Reinstatement and Final Line Check & Dimensional check.**
6. **Checking and Evaluating of construction work orders including of shop drawings, assemble drawings, dimensional drawings, Weld drawings and non-destructive Examination maps issued by construction contractor in compliance with approved for construction drawings & project technical specifications and Non-Conformance Report (NCR).**

2017 to 2018: Manager of Production and Manufacturing, Full time, IPRCo, Iran.

Field of activity is Production and Manufacturing of all kind of compressor and steam turbine blades for power plants. Prepare drawings and Computer Numerical Control (CNC) programs (Siemens 840D controller) for rotary and stationery parts of gas and steam turbines, and also design jigs and fixtures. Monitoring or measuring manufacturing processes to identify ways to reduce losses, decrease time requirements, or improve quality.

1. **Reverse engineering methods of components.**
2. **Optimize the design and manufacturing to reduce manufacturing costs and lead times.**
3. **Recommending corrective or preventive actions to assure or improving product quality.**
4. **Work with tight deadlines and urgencies.**
5. **Managed, schedule, and balance human resource, materials and machines such as Computer Numerical Control (CNC) machines, Coordinate Measuring Machines (CMM), Numerical Control (NC) machines, Conventional manufacturing machines. Cutting and Polishing machines, engineers, technicians, and workers shifts.**
6. **Support project creation for the Prototype (Machining, CNC, Welding, Assemblies).**
7. **Requisition orders for purchasing and services.**
8. **Define operation processes and set-up manufacturing documents.**
9. **Support manufacturing operation in daily work to reach quality, cost and delivery targets.**

2016 to 2017: Deputy of managing director (Engineering Deputy), Full time, IPRCo, Iran.

Field of activity is repairs, rehabilitation, and manufacturing of all kind of power plants components such as boilers, generators, and turbines (steam, gas, hydro, and wind).

2013 to 2016: Deputy of managing director (Projects Deputy), Full time, IPRCo., Iran.

Field of activity is overhaul, repairs, rehabilitation, and manufacturing of all kind of power plants components such as boilers, generators, and turbines (steam, gas, hydro, and wind). I have been managed a lot of projects:

1. **Technical and project management: Planning, budgeting and resourcing activities.**
2. **Build and maintain relationships with industrial networks, clients and contractors.**
3. **Supervise and prepare proposals, contract documentation and authority submissions.**
4. **Coordinate and Management of overhaul projects for gas turbine such as Combustion Inspection (CI), Hot Gas Path Inspection (HGPI), and major overhaul for GE type F5, F6, F9, Siemens V94.2, MHI 701D, Hitachi H25.**
5. **Coordinate and Management of overhaul projects for steam turbines and generators: GE, Siemens, MHI, Franco Tosi Meccanica, SKODA, Hitachi, LMZ, Brush.**

6. **Coordinate and Technical Advisor for repairs of GE Gas Turbine F5, F6, F9E, Hitachi H25, and BBC 13D.**
7. **Management of supply spare parts for some power plants such as identification, planning, procurement, supply, engineering, and quality control of spare parts.**
8. **Coordinate and Management of maintenance team for routine and daily repairs of a power plant.**

<u>2008 to 2013</u>: Full time, IPRCo, I am <u>manager of metallurgy and laboratories</u> of mechanic deputy of IPRCo, I have been performed and managed a lot of projects such as:

1. **Quality assurance and quality control-QA/QC Lead Auditor: ISO 9000, ISO14000, and OHSAS 18001 based on International Register of Certificated Auditors (IRCA).**
2. **Coordinate, Manage and supervise a lot of projects in the field of residual life assessment, failure analysis, and NDT of thermal power plant components. And also Coordinate, Manage and supervise a lot of projects in the field of repairs and recondition of gas turbine, steam turbine, and generator rotors.**
3. **Familiar with gas turbine rotors, steam turbine rotors, and generator rotors workshop activities for different OEM such as gas turbine Westinghouse (W101, W191, W251), MHI MW701D, MW701B, GE (MS F5, F6, and F9E), FIAT TG16 and TG20, Sulzer S7, Siemens V94.2, BBC (9D, 11N2, and 13D), Ansaldo, and for steam turbines Siemens, Westinghouse, MHI, GE, and BBC and also for generator Westinghouse, Mitsubishi, GE, Siemens, BBC, Ansaldo.**
    - **Non-destructive inspection such as VT, PT, MT, UT, ET, Replica and hardness test, run-out check, dimensional control, sand blasting, cleaning and de-oxidation. Disassembling and assembly of steam and gas turbine and compressor rotors, disks, blades and changing spare parts.**
    - **Repair and refurbishment of damaged steam and gas turbine/compressor components.**
    - **Low speed and/or high speed balance test.**
    - **Repair rotor and blade casing, carrier, blade, seal, shroud, tenon, lacing wire.**
    - **Remove the retaining rings, service and repair the generator rotor winding.**
    - **Refurbishment and changing winding and insulation of generator.**
    - **Welding and heat treatment of turbine rotors, journals, and collars.**
    - **Welding and heat treatment of cast iron & aluminums casings.**
    - **Different type of welding: SMAW, GTAW, GMAW, SAW, and Braze.**
    - **Refurbishment of rotor using welding & heat treatment method.**
    - **Straightness of bended or deflected rotors using heat treatment, thermo-mechanical, HOT SPOT and machining and also combined methods.**
    - **Manufacturing of heat treatment fixtures of turbine components.**
    - **Refurbishment of steam & gas turbine seals, cover band, tenon, lacing wire, inner casing, mixing chamber and etc.**
    - **Supervise a lot of projects in the field of welding and heat treatment.**
    - **Familiar with Refurbishment of gas turbine components.**
    - **Familiar with welding and heat treatment workshops activity.**

<u>2001- 2008:</u> Full time, I am senior research engineer of research and laboratories of IPRCo, Iran.
I have been performed and managed a lot of projects such as:

1. **Performed a lot of projects in the field of evaluation and life assessment and failure analysis of thermal power plant components.**
2. **Performed a lot of projects in the field of repairs and recondition of gas and steam turbine and generator rotors (procedure, execution and inspection).**
3. **Collection of technical information (boilers and turbines) of most Iranian Power Plants.**
4. **Documentation, evaluation, and development many tests such as destructive and non-destructive tests (DT and NDT), processes chart, and technical forms for life assessment and failure analysis of thermal power plant components.**
5. **Inspection based on ASTM, ASME, API, AWS, DIN, ISO, TRD, ASNT Codes and Standard.**
6. **Development and making many algorithms and software in the field of pressure vessel calculation and remaining life assessment for boilers (ASME and TRD Code).**

7. **Maintenance of heat exchangers (to replace tubes exchanger using expander tools according to the TEMA code, API 661 and ASME section VIII Div. I).**
8. **Familiar with finite element method, and also modeling and analysis by commercial FEM software such as ABAQUS, ANSYS, and PATRAN.**
9. **Determination and selection machines for mechanical laboratory such as creep machine, universal testing machine, fatigue machine.**
10. **Determination and selection devices for NDT laboratory (UT, MT and hardness).**
11. **Establishment and development of mechanical, metallurgical, and metrology laboratories and also installation of machines and working with them.**
12. **Familiar with failure analysis by NDT, DT, stereo microscopy, scanning electron microscopy (SEM), fractography, analytical and numerical methods calculation.**
13. **Documentation, quality management, and internal quality audit based on requirement of ISO 9000: 2000 series.**

a. **Working with standards such as; ASTM, ANSI, AFNOR, AGMA, ASME, API, AWS, ASNT, DIN, ASM, BSI, EPRI, GOST, IS, ISO, JIS, SAE, TRD, …**
b. **Working with procedures and instruction manuals of OEM manufacturing companies (boiler, generator, steam and gas turbine, gear box) such as ABB, Alstom, BBC, Hitachi, Siemens, GE, ACEC, AEG, MHI, LMZ, Westinghouse, SKODA, Franco Tosi, Ansaldo, and Brush.**

1998-2002: Full time and part time, Tarh Negasht Company, Tehran, Iran.

Field of Activity is design and consultant engineering (Design, reverse engineering, development, manufacturing, and engineering software). I have been performed a lot of projects such as:

- **Reverse engineering of some systems and machine.**
- **Design and development, gears and power train systems.**
- **Evaluation of piston rod of internal combustion engine, Paykan 1600 (Iranian passenger car).**
- **Investigation, evaluation, and calculation for some components and systems of construction & earthmoving machines and equipment such as crawler and wheel excavators, crawler and wheel Trenchers, crawler Dozers, Backhoe and wheel Loaders, crawler and wheel Tractors (Liebherr Construction Equipment Co., Komatsu Ltd, Volvo Construction Equipment).**
- **Effective parameters of engine (internal combustion) selection, Trencher.**
- **Investigation, evaluation system, and design and selection of components, power train systems, Trencher (off-road machineries).**
- **Investigation, evaluation and calculation of traction force and track systems and also selection of track system components, Trencher (off-road machineries).**
- **Investigation of hydraulic systems and evaluation of ergonomic factors and also Design and selection of components, cabin, seat, and dashboard, for Trencher off-road machineries.**
- **Economical evaluation of Iranian passenger cars export in the Middle East.**
- **Collect and made software for technical information of passenger cars and transmission of passenger cars (manual and automatic).**
- **Working with standards such as; SAE, ASME, ASAE, AGMA, DIN, AFNOR, ASM handbook for gears, passenger cars, and off-road machineries.**
- **Working with procedure and standards of manufacturing companies (passenger car) such as Peugeot, Citroen, and Renault.**

1997-1999: Full time, Shahid Karimi Complex Industries, Iran.

Field of activities are manufacturing of off-road machineries (Design, reverse engineering, evaluation, development, quality control, and manufacturing). Some projects that I have been performed such as:

- **Investigation and evaluation of suspension system for off-road machineries.**
- **Calculation of traction force for truck and off-road machineries.**
- **Investigation and manufacturing of hull for off-road machineries.**
- **Evaluation of hydraulic systems for off-road machineries.**

- **Design and reverse engineering of components, systems, and factory, Quality Control, and manufacturing of power train systems for off-road machineries.**
- **Working with standards such as; SAE, AGMA, ASAE, DIN, and ASM for off-road machine.**

Membership of Professional Association: **Iranian Society of Mechanical Engineering.**

Awards and prizes:

- **Top rank in national university entrance exam, Ministry of Higher education, Iran, 1992.**

Training Course that I taught for engineers and technicians of power plants, petrochemicals and refineries:

More than 10 training course in the field of Boilers, Gas Turbine, Steam Turbine, Remaining Life Time Assessment, Failure Analysis, and Shaft Alignments for Power Plant personnel such as:

- **Fundamental of Steam Turbine training course for technicians and engineers.**
- **Fundamental of Power Boilers training course for technicians and engineers.**
- **Fundamental of Gas Turbine training course for technicians and engineers.**
- **Alignments of Rotating Shaft training course for works, technicians and engineers.**
- **Rotor Life Time Inspections for engineers of power plants.**
- **Gas Turbine Life Time Extension for engineers of power plants.**

Computer Skills:

1. Computer Programming Software: Experience with Visual Studio (Visual Basic and Visual C#), MATLAB, …

2. Mechanical and simulation software (CAD, CAE/CAM and FEM): Experience with software packages AUTOCAD, SOLIDWORKS, PATRAN, ANSYS, ABAQUS, and Power Mill.

3. Document preparation, spreadsheets, and data bank: Microsoft Word, Excel, and Power Point.

4. Data acquisition system and analysis: LabView, and Simulink (Matlab).

Courses (Certificate of participation in Courses):

1. **Participation Certificate of Educational Course, the 5th Workshop on Production and Operation Management, Faculty of Management University of Tehran, 4th December 2017, Tehran, Iran.**
2. **Certificate of Participation Educational and workshop Course in CNC machines (Operator and Preliminary Programming Workshop), Certificate no. CER164-HR96, 32 hours, Venue: Iran Power Plant Repair Company, Tutor: Engineer Seyed Jalal Haghi, 11–15 December 2016, Tehran, Iran. Karaj, Iran.**
3. **Certificate of Participation in Metrology and Dimensional Measurement Training Course with Coordinate Measuring Machines (CMM) Portable Machine (FARO Arm Portable Coordinate Measurement Machine), 40 Hours, 02 - 06 April, 2019, Engineering Services Company, Arak, Iran.**
4. **Participation Certificate of ISME Engineering Courses, awards this certificate of achievement to Ali Ahmadi, having successfully completed the Thermo flow practical training course (introductory), The Iranian Society of Mechanical Engineers, 01–9 December 2016, Tehran, Iran.**
5. **Certified Welding Inspector (CWI), accordance with ANSI/AWS QC1:2007 Standard, Aria Azmoon Sanat Co., www.aas-co.ir, AWS Educational Institution Members, Certificate No. AWS/CWI/R903413, Date of Issue: 25th April 2011, Date of Issue: 25th April 2014.**
6. **Certificate of successful Completion, Environmental Management Systems Auditor/Lead Auditor(A17596)(Based on ISO 14001:2004), ESENEK Center Ltd.(IRCA Certified Training Course), Certificate No. 12-5073, Valid for 3 years for auditor registration to IRCA, Certificate Date 15.09.2012, www.esenek.com/, Iran.**
7. **The Quality Management Systems Auditor/Lead Auditor Training Course ISO 9001: 2008 Version, AFNOR Group in association with MD MS Ltd. and TUV Academy (Iran-Germany), Certificate No. 16013/18, IRCA Certified, 1st -2nd December 2010. www.afaq-eta.com/, MOHIT DANESH KEYFIAT, Mehran Dabagh.**
8. **Introduction to the Requirements of ISO 9000: 2008 standard, EAQA, An AFAQ GROUP Company, Certificate No. 1293/02, AFAQ/EAQA-IRAN, 30th July 2009.**
9. **Machinery Vibration Analysis – Level I, 29th -1st July 2010, MaBna Engineering & Commercial Company, SKF Authorized Distributors.**
10. **Project Management Body of Knowledge (PMBOK), Course of PMBOK 2008 Guide (4th Ed), Pars Project Management Institute, June and July 2011, 40 Hours, At IPRCo.**
11. **Introduction of Advance Non-destructive Test Techniques, Guided Waves, TOFD, MMM, EMI, EMAT, Including Workshops, Kavosh Tafsir Sanat Consulting and Inspection Company, www.KTS-NDT.com, 23rd Nov. 2011, Iran.**

12 **Quality Management System ISO 9000-2008, AFQA Company, Tehran, Fall 2011.**
13 **Ergonomic parameters on application of computer, 8 hours, Iran Power Plant Repairs Company, 2011.**
14 **HSE (Health, Safety and Environment) training course, 8 hours, certificate number IP-IMS-CEI390-051, Iran Power Plant Repairs Company, Tehran, 2011.**
15 **HSE Leadership (Health, Safety and Environment) training course, 12 hours, IPRCo., Tehran, 2011.**
16 **Design of power transformers, University of Tehran and IPRCo, 120 hours, Tehran, 2010.**
17 **Technical report writing in English, Koosh Avar Tajhiz company and IPRCo, license No. 13500681, 28th Feb. to 7th March 2011, www.kooshavar.info, Tehran.**
18 **Research Management Training in the Electrical Industry, 32 hours, Sharif University of Technology (Center for Technology Studies Sharif University of Technology) and the Department of Human Resources and Corporate Research of Ministry of Energy, September 2010, Tehran Iran.**
19 **Introduction to Gas Turbines, license No. 4617, 44 hours, date 25th-29th September 2008, The Research Institute of Energy, www.nri.ac.ir, Ministry of Energy, Tehran, Iran.**
20 **Professional skills and technical training, computer professionals work in ICDL degree (International Computer Driving License), with a score of 78 out of 100, license No. 1040951, 26th November 2008, Accordance with Standard of technical and vocational training organization - ministry of labor and social affairs, 24 hours, Iran.**
21 **Research and development (R & D) and firms involved in the settlement Industry (Preliminary)-license no. 5610/100132 and 8702011-1350029/203381, Industrial Research and Training Center of Iran, www.irtci.com, 40 Hours, 20th-24th July 2008, Tehran, Iran.**
22 **Pressure Vessel Code ASME, Section VIII, Division I, Iranian Society of Mechanical Engineers, www.isme.ir, Engineering Courses, 10th-19th September 2005, Tehran, Iran.**
23 **Internal Quality Audit based on Requirements of ISO 9000: 2000 series, RWTUV and TUV Academy (Iran-Germany), Certificate No. QA-IR02/1905, 9th -11th July 2002.**
24 **Accounting Principles 1, Certificate No. 4981, Cooperative office of Karaj, Cooperation Directorate of Ministry of Cooperation, IPRCo, 68 Hours, 4th November to 19th January 2002, Iran.**
25 **Basics, Structure & Documentation of Quality Management System in accordance with ISO 9000: 2000 Series, RWTUV and TUV Academy (Iran-Germany), Certificate No. QM-IR02/0104, 2nd, 3rd, and 9th January 2002.**
26 **Five S system (Five step in Quality Management system or 5S), 16 hours, rating of 80 out of 100, License No. 19-841138, Institute for Productivity and Human Resource Development, www.iphrd.org, Industrial Development and Renovation Organization of Iran (IDRO), www.idro.org, Tehran, 2006.**
27 **Advanced AutoCAD (Three Dimensional) Training, Shahid Karimi Complex Industries, Iran, 1997.**
28 **Foundations of quality management and role of organization management to establishment of quality management system, 7 hours, RWTUV, TUV Academy (Iran-Germany), 2002.**
29 **Quality management and internal quality audit based on requirement of ISO 9000: 2000 series, RWTUV, TUV Academy (Iran-Germany), certificate no. QA-IR02/1905, 2002.**
30 **Computer Software Training, software and hardware, Tehran, Iran, 1995-2002**
31 **Training for working with machines and devices, IPRCo, Karaj, Iran, 2001-2004**

- **Hardness machine (Swiss Max), micro hardness, and portable hardness machine.**
- **Ultrasonic device (flew detector) and ultrasonic wall thickness measurement.**
- **Material analyzer, metrology devices, and microscope (invert, stereo, and SEM).**