

# TESTING ADJUSTING & BALANCING (TAB) ISKAV TAB TRAINING CERTIFICATION PROGRAM

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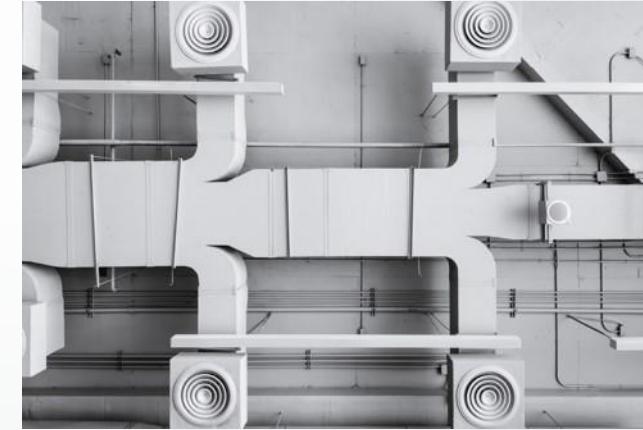
# INTRODUCTION OF TAB

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## Description of TAB

Testing, adjusting and balancing is a process based on international standards and procedures with measurement and evaluation steps in order to provide design values, to verify the promised results and to ensure that the target performance values are achieved at the lowest energy consumption in HVAC systems.

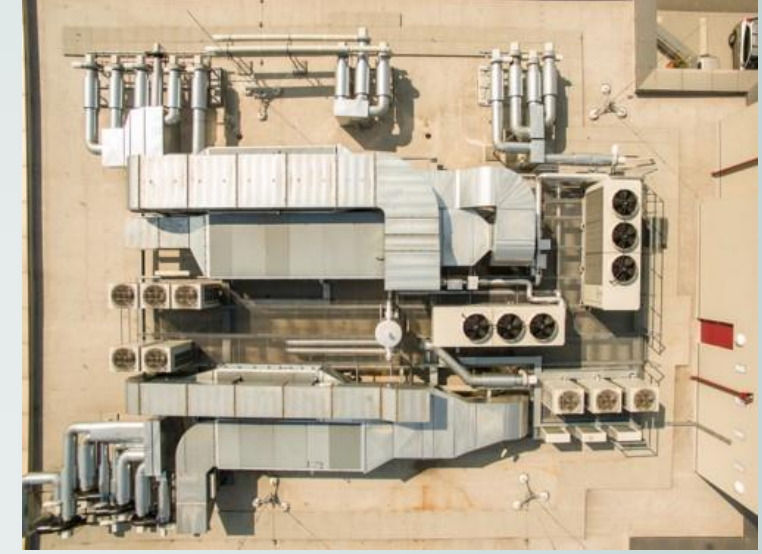
- ✓ Guarantee design values and system performance
- ✓ Verify automation and emergency scenario
- ✓ Provide energy efficiency and optimize energy consumption
- ✓ Document for facilities' maintenance and operation
- ✓ Prevent unfair competition
- ✓ Measurement and evaluation steps
- ✓ Based on international standards and procedures



## TAB as a Solution

### For Problems Like;

- ✓ Unnecessary energy consumption
- ✓ Heating and cooling problems
- ✓ Sound and noise problems
- ✓ Odour problems
- ✓ Health problems in office buildings
- ✓ Health issues in hygienic areas
- ✓ Indoor air quality problems (fresh air, exhaust air, temperature, humidity)
- ✓ Contribution for pandemic issue (health issue in office, hospital, shopping mall, airport, public buildings etc.)





- ✓ **ISKAV** (Heating, Cooling, Air Conditioning Research and Education Foundation) has a 25-year foundation history.
- ✓ The aim of the foundation is to develop the heating, cooling and air conditioning sectors of Turkey, to ensure its harmonization with the European Union and to realize university-industry cooperation.
- ✓ It is aimed to produce services for our sector by cooperating with professional organizations, private and public institutions that carry out social and scientific studies.
- ✓ ISKAV is to guide, certify and observe companies that will work and are working in the field of TAB. ISKAV TAB Certificate Program is carried out for engineers working in the air conditioning sector. After the theoretical part, which lasts for five weeks in total, the participants who are successful in the exam are taken to the practical training.
- ✓ Practical training and then the practice exam are held at the ISKAV Applied Training and Exam Center. Participants who successfully complete the processes are entitled to receive the ISKAV TAB Certificate.
- ✓ Studies were carried out with universities, TTMD and other associations, and ISKAV TAB Specifications were prepared for companies operating in this field. Companies fulfilling the specification qualifications; continue their activities as TAB Certified Companies.
- ✓ ISKAV carries out studies on monitoring the processes of these companies and raising awareness about TAB in compliance with these principles.

Since 2015

Training and certification scheme for air &  
hydronic systems

Based on international standards &  
procedures

Harmonized for local needs (ISKAV)

## Training

- ✓ Education
- ✓ Online education programme
- ✓ Training on Site
- ✓ ISKAV laboratory for training
- ✓ Written Exam
- ✓ Online written exam
- ✓ Practical Exam
- ✓ Practical exam on-site in ISKAV laboratory

## Certification

- ✓ Engineers
- ✓ Technicians

## Renewal Scheme of Certification

- ✓ Professional Development Credit System
- ✓ Submit 12 development credit with in current two-year certification cycle

## ISKAV TAB Certification Criteria:

1. Engineers and technicians with at least two years of working experience in the air conditioning industry can apply for the ISKAV TAB Certificate Program.
2. Those who are found suitable according to the results of the research to be carried out by ISKAV according to the information given in the application form, are entitled to participate in the ISKAV TAB Certificate Program.
3. Engineers and technicians who want to get ISKAV TAB Certificate will have ISKAV TAB Engineer/ Technician Certificate that will be valid for 2 (two) years if they are successful by participating in the TAB compliance training program organized by ISKAV or by taking the exam directly.
4. If they fulfill the obligations in the ISKAV TAB Certified Engineer (ICE) and Technician (ICT) Certificate Renewal Procedure for two years and complete the appropriate professional development credit (VDL), their certificates are extended for another two years. Certificates of those who do not complete their (VDL- VOCATIONAL DEVELOPMENT LOAN) are suspended.
5. In order for a TAB firm to be certified, it must employ at least two ISKAV TAB certified engineers. The engineers to be employed are notified to ISKAV by the TAB firm and its approval is obtained.
6. ISKAV declaration must be signed by the relevant company
7. ISKAV TAB certified companies inform ISKAV about their projects and the information of the ISKAV TAB certified engineer who took part in the project. ISKAV notifies the employer in writing of the certificate information of the TAB firm performing the work and its rights regarding TAB.
8. An ISKAV TAB certified engineer/technician working in an ISKAV TAB certified company cannot also carry out TAB operations within another company. When such a situation is detected, the certificate of the relevant engineer is revoked.
9. If the number of TAB certified engineers of an ISKAV TAB certified firm drops below two, the firm must complete the number of ISKAV TAB certified engineers to at least two within 6 months. Otherwise, the firm's certificate is suspended until it completes its deficiencies.
10. Firms with ISKAV TAB certificate operate only in TAB, commissioning and technical service. TAB companies cannot provide sales, contracting, consultancy and project design services. ISKAV TAB certificates of companies providing services other than TAB activities are revoked.
11. In case of a complaint to ISKAV by the employer regarding the work done by the firm holding the ISKAV TAB certificate, ISKAV establishes a committee for due diligence. The TAB firm, which has undertaken the work, pays ISKAV the cost incurred for due diligence in case of errors and accepts that the report will be given to the complaining party.
12. Measurement devices listed by ISKAV must be available and used in TAB works to be carried out by ISKAV TAB certified companies. Devices must have valid calibration certificates.



# ISKAV TAB TRAINING & CERTIFICATION PROGRAM

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## ISKAV TAB Certification Criteria:

### Outlines of TAB Certification Programme

- ✓ Education
- ✓ Online education programme
- ✓ Training on Site
- ✓ ISKAV laboratory for training
- ✓ Written Exam
- ✓ Online written exam
- ✓ Practical Exam
- ✓ Practical exam on-site in ISKAV laboratory
- ✓ Certification
- ✓ Professional Development Credit System
- ✓ Submit 12 development credit with in current two-year certification cycle
- ✓ Declarations (for TAB companies)





# ISKAV TAB TRAINING & CERTIFICATION PROGRAM

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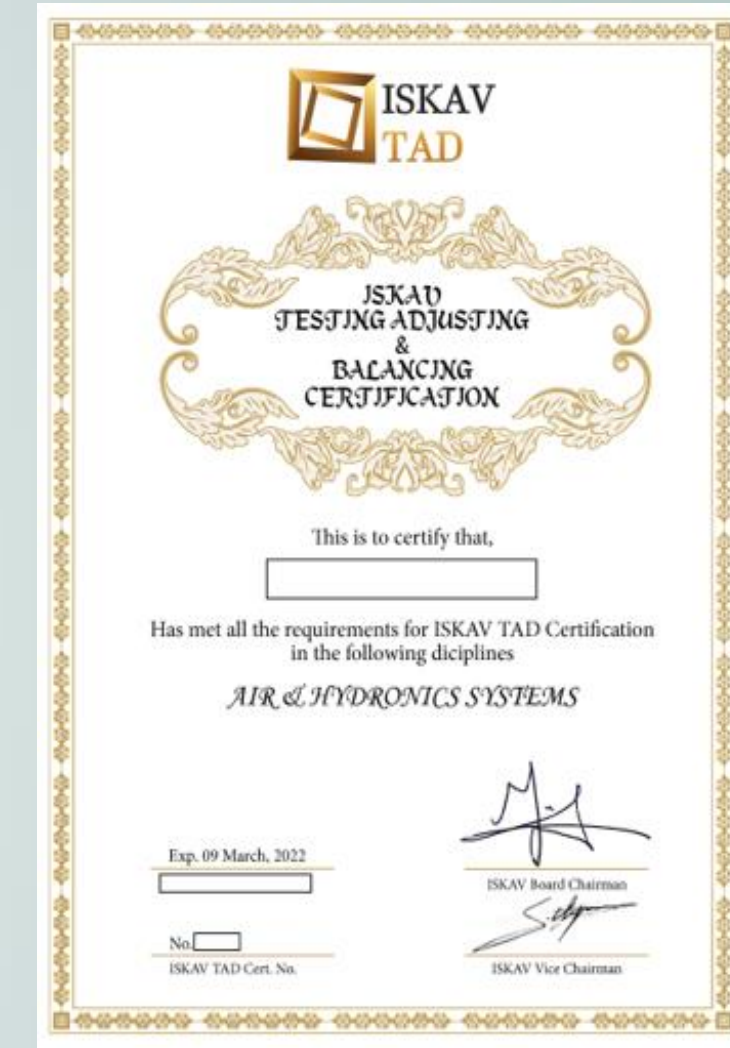


#BuildingBridges ISKAV

## ISKAV TAB Certification Criteria:

### Requirements of Attend to Programme

- ✓ Individual minimum 2 years' experience in HVAC sector for engineers and technicians submitting of CV approved by ISKAV
- ✓ Company minimum 2 certified engineer from ISKAV TAB programme provide minimum test instruments requirements that are declared on ISKAV website and procedure book declaration of conformity of ISKAV rules to be independent and third-party company.



ISITMA SOĞUTMA KLİMA ARAŞTIRMA ve EĞİTİM VAKFI

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Who should attend to programme?

Engineers



Technicians



Designers



Contractors



Manufacturers



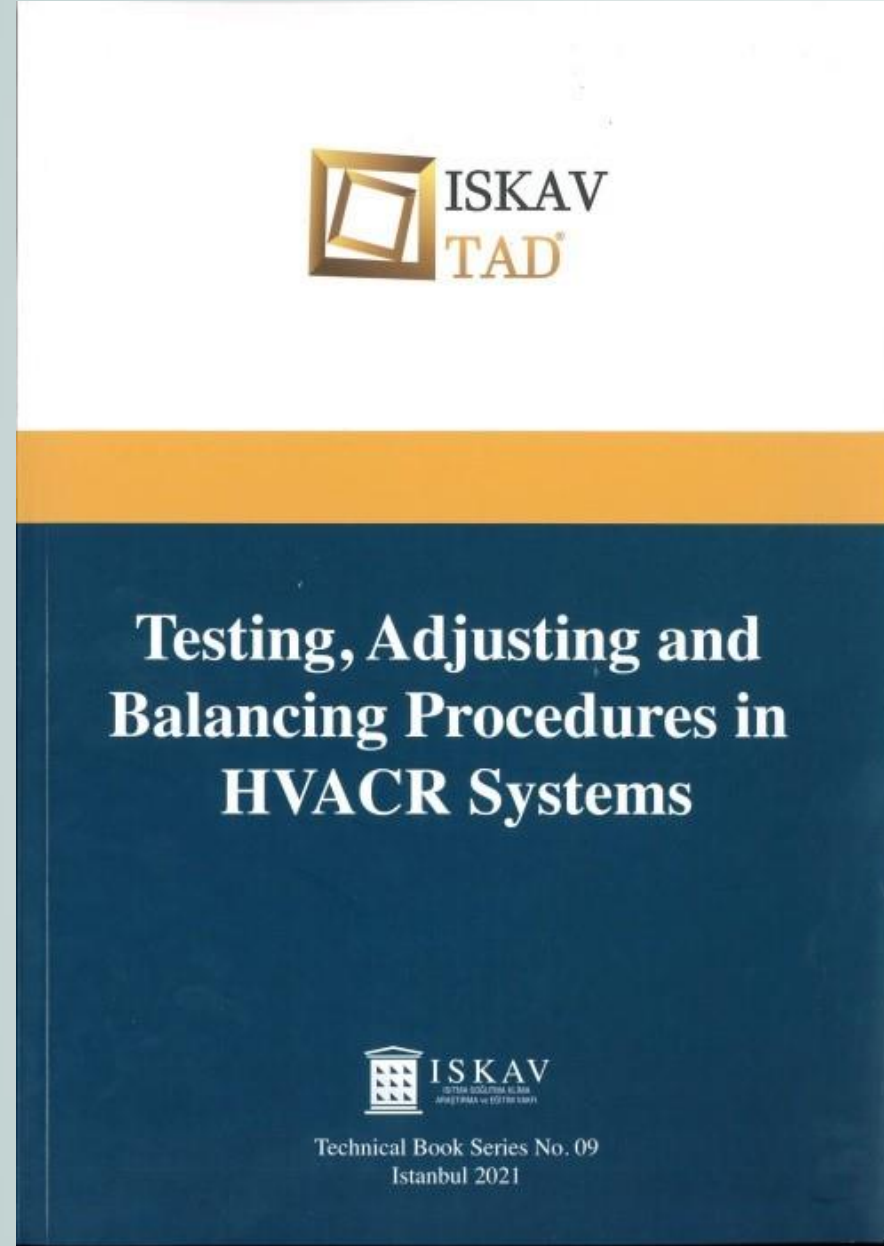
Testing, Adjusting and Balancing  
Procedures in HVACR Systems in  
Turkish

Testing, Adjusting and Balancing  
Procedures in HVACR Systems in  
English

Testing, Adjusting and Balancing  
Procedures in HVACR Systems in  
French in translation

Sound and Vibration Measurement  
Procedures Book – Ongoing





TAB is a quality-oriented process that improves the delivery of a project. Verifies and certifies that the business has been tested, adjusted and balanced according to design to meet the owner's requirements. It ensures that systems and devices operate in the most efficient region, unnecessary use of energy is minimized, and therefore energy is used efficiently.



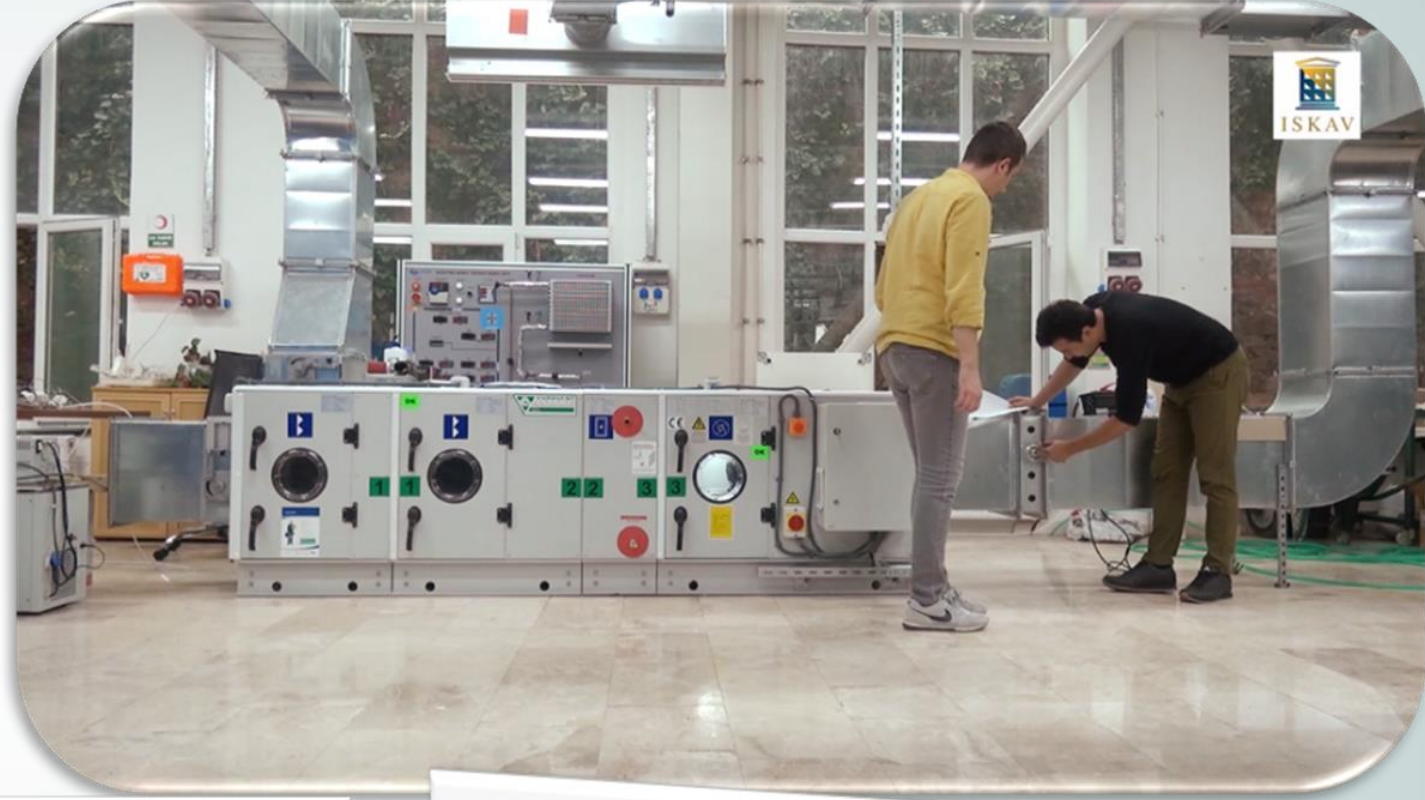
ISKAV Applied Training and Exam Center  
is located in Yıldız Technical University Thermodynamics  
Laboratory E Block

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THANK YOU