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Passenger Automation Systems in Airports

Hybrid Check-in kiosk

(Boarding Pass+Bag Tag+Payment for overlimit bag)

Self Service Bag Drop (Retrofit & Full)

Cabin Bag Sentinel (Payment for overlimit Cabin Bags on gate)

Excess Baggage Payment (on Counter)

Mobile Port (Portable Check-in Device)

Queue Management Systems in airport

Produced by: **emse**

Powered by: **quavis**



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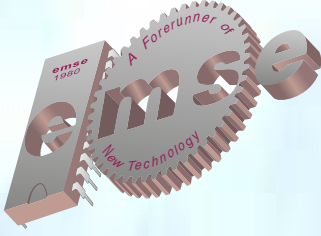
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emse a.ş.

Emse Engineering Industries Co. Inc is a Turkish origin company specialised in "engineering design activities".

The core company had been established in 1980 by founder Muslu OĞUZ (Mechanical Engineer, METU '78).

It had been reestablished as a corporate company in 1987.

Being mainly a research and development base, Emse has never been participated nor supported by any other group/ organisation.

Emse is specialised in computer controlled industrial devices.

Since last 10 years, main deal has been

Self Service Passenger Automation in Airports.

Managerial headquarter is located at İstanbul, while electronic production facilities and mechanical plant is at Ankara.



quavis a.ş.

Quavis is the software development partner of Emse company.

Formerly software development division of Emse was serving as a formal R-D center within the company.

Upon increasing workload, this division is reformed as a discrete company under name "Quavis" and R-D team of Emse has been transferred to this new occurrence.

Currently the company is involved in Technopark facilities of Ostim Technical University- Ankara.

Quality, Security, Reliability:

ISO 27001:2022 Information security management

ISO 14001:2015 Environmental management

ISO 9001:2015 Total Quality management

TSE After Sales Service proficiency (by Turkish Standards Institution)

Production Capacity Certificate (by Ankara Chamber of Industry)

Self Service Check-in + Bag Drop application in new İstanbul Airport (By courtesy of Turkish Airlines)



Istanbul Airport
Turkish Airlines Check-in kiosks



Elegant Design
Turkish Airlines
Check-in kiosk



Istanbul Airport
Turkish Airlines
Retrofit Bag Drops



Pegasus Airlines
Twin Bag Drop
in Izmir Airport

Emse-Quavis Bag Drop devices are produced with a revolutionary unique concept. Unlike classical design, they feature no external kiosk part, because all kiosk hardware and bagtag reading modules are placed in "Twin Arch" module.



CUSS 2.0 ready Common-Use Bag Drop
for IGA (Istanbul Grand Airport operator)

Self Service Check-in + Bag Drop application in Sabiha Gökçen Airport (By courtesy of Pegasus Airlines)



Sabiha Gökçen Airport- Istanbul
Hybrid Self Service Kiosks

HYBRID KIOSK: Boarding pass + Bag Tag print + Weight measure + Excess baggage payment



Elegant Design
Pegasus Airlines
Self Service
Hybrid kiosk



Sabiha Gökçen Airport- Istanbul Drop-n-Go Bag Drop units

DROP-n-GO : Since all process has been completed in Hybrid kiosk,
bag dropping is instant.



FlyArystan (A subsidiary of Kazakhstan's flag carrier Air Astana) had shifted to "Digital Travel" by installing Emse-Quavis hybrid kiosks in 13 airports of Kazakhstan (with gratitude to virtual mascot "ijan")...



Full Bag Drop

*Easiest and fastest
Bag Dropping*

A few minutes to departure?

Long queue in counters? Drop your bags using : **Fast Bag**



As an extra tool, especially for airports serving multi airlines, Quavis Standard Check-in kiosks may be coupled to Full Bag Drop devices to identify ID, print Boarding Pass/BagTag prints (CUSS compatible airport applications)

Outer shape/design can be customised to each airport's architectural concept

Can be integrated to airport's BHS system conveyors.

Can run in parallel to manual contours



Two+ easy ways to drop your bags:

1. Drop and Go to Gate:

Print your Boarding Pass and Bag Tags on Quavis Hybrid kiosks or on Quavis Q1, than just leave your bags onto Fast Bag.

2. No Bag Tag yet:

*If you have GSM phone check-in:
Present barcode to Quavis kiosk: Bag Tag will be printed.
Attach the tag onto bag, and leave it onto belt. Bye Bye.*

2+. Easiest way:

*You may also benefit Quavis Q1 kiosk.
Your face will be recognised, bag tags will be printed.*

No paper or contacts any more.

Leave your bags onto belt, enjoy a coffee until boarding.

What is *Hybrid Kiosk* ? Why *Hybrid Kiosk* ?

Traditional Check-in kiosk has been in use since the beginning of 21st century.

It can issue boarding pass/bag tag upon presentation of passenger ID, PNR or similars...

But current trend is "paperless travel" and check-in is managed even "on-line".

The only practice which is not possible "on-line" is "to carry baggage to conveyors".

(It seems, a baggage may be too heavy to transfer on-line!...)

So, it is time for Hybrid kiosk: An integral device providing "all flight procedure" at a single station.

- * Of course it does issue boarding pass and bag tag(s).
- * Hybrid kiosk will also measure the weight of baggage,
- * If the weight exceeds ticket allowance, the monitor invites you to pay extra fee on POS module.

"Mission" is complete. Take the baggage(s) to Bag Drop conveyor.

No need to press any botton in Bag Drop console. Just Drop-n-Go.

(Hybrid kiosk has already transmitted determinant baggage data to Bag Drop System)



Now is the time to shift to:

NEXT LEVEL Q1

in Passenger Automation

A seamless solution towards "no paper travel" objective:

Q1: One ID - Self Service integral solution by "Quavis"

Shortest and fastest boarding solution "Q1"

Why and How:

OneID concept aims to settle a **contactless** boarding process. Despite to ideal, there are TWO inevitable **contact** steps:
First : To identify passenger in name and flight records
Second: To deliver baggage as a physical object...

First step is managed by implementing "Enrollment kiosks" through use of camera(s), document readers, biometric tools etc.

But for second step, though ID of passenger is detected, bag tagging, optional payments, overlimit constraints etc require a new contact.

At this point Q1 presents a "shortcut":
Q1 kiosk of Emse-Quavis provides both "contact steps" at a single station:
Q1 kiosk contains:

- All hardware of enrollment kiosk as camera, document reader etc,
- Also providing:
- Baggage tagging, weight measuring, payment devices, seat selection, changing, delaying flight etc...

In a few words:

One ID boarding target may fully be performed at once with:
Quavis Q1 kiosk

Thanks to Quavis' patented "MonitorEye" technology, Q1 kiosk is equipped with a 32" single LCD panel, while carrying 3 cameras between LCD layer and touch screen layer. With this tool, face recognition of passenger is captured by 3 cameras orthogonally among which best face recognition data can be obtained.

Q1 captures several face views as to height of person in front. Than, dedicated Quavis software selects the best orthogonal view.



Cabin Bag Sentinel

An inventive and practical remedy for overlimit cabin bags

Cabin Bag's are limited by size and weight to carry only personal belongings, while passengers try to fit as much as goods inside to not pay extra baggage fee...
Result: Airline companies lose money where one dollar cheaper ticket makes sense...

Cabin Bag Sentinel is a last minute inspector for overlimit cabin bags. It can instantly measure weight and dimensions/volume of bag on boarding gate. It has a POS unit to charge extra payment, and a bag tag printer to print bag tag if oversize bags will be sent to baggage comp't.

- *Instant volume measure,
- *Instant weight reading,
- *POS device for oversize payments,
- *Bag Tag printer for immediate tag print to send oversize bags to baggage compartment of aircraft

Standard model: CBS'12-S
Intended for stationary placement on certain gates.

Portable model: CBS'12-M
Upon order, a light model with mini wheels to move can be produced for temporary use in any gate during boarding.



Magic Volume

An instant volume and weight detection device

IATA recommendations and airline rulings require passenger baggages to be in some limits regarding size and dimensions (henceforth "volume" and below a max weight). To prevent crowds in front of contours, passengers may check whether their luggage exceeds allowable limits in volume and weight.

"Magic Volume" instantly displays dimensions (and volume) of any baggage together with weight.



"Magic Volume" can either be used as free measurement device or can be associated with registered airways baggage rulings. (Optional bar code reader can scan boarding pass and displays adequacy of baggage to passenger's baggage allowance.

Mobile Port

All in one Portable device for Check-in and boarding in the event of airport automation outage.

- Mobile check-in and bag tagging in a cabin size suitcase.
- Ergonomic, aesthetic but still a vandal proof outer case. (Case made of plastic resin and reinforced with inner metal skeleton)
- Compact dimensions: 56 x 23x37 cm (Smaller than cabin bag size).
- Thermal paper rolls are embedded in case housing (No external bracket or roll holders required)
- Power Supply: Mains + internal battery (Full charge battery retains about 400 tag prints)
- Battery low indicator as LED display
- Ethernet port, Wifi and USB port output.
- Support for third party software development by our "kiosk management platform "KMS"

Optional peripherals:

- Credit Card reader and POS emulation.
- Weight Scale integration to check baggage weight.
- Carry trailer or wheels adapted to the case.



Mobile Port is at work in Phuket airport



Standard hardware:

- Boarding Pass + Bag Tag printers.
- Passport Scanner (Optical, MRZ).
- Industrial PC unit: 15" LCD touch monitor,
- Wifi keyboard. (placed in embedded housing)
- Extra whip antenna Wifi module (802.11 a/b/g/n)
- Ethernet and USB connections available for wired internet or GSM dongle



Pay-n-Pass

Excess Baggage Quick Payment Device on Counter

How do you cope with small scale overlimit baggage? By ignoring it?

But you may be losing considerable amounts of income.

Thanks to **Pay-n-Pass** now you can instantly invoice on Check-in Counter even for one kg extra luggage.

It displays extra amount on touch screen. Passengers can pay by inserting Credit Card safely as they also enter card security code.

Optionally, as soon as one passenger leaves the counter, green lamp lights to invite next passenger without loss of any moment.



Can cabin baggage be so big? Wouldn't it be max 7 kg and small to place in stowage bin?

Has she paid for such a huge luggage some extra amount? Has she informed cabin crew that she will occupy all stowage?

Do you think the cute hostess can reject this bag(!) just minutes before take-off?



Bag Drop Sentry

*An instant and portable
Bag Drop Controller...*



**A magic device to create
an instant Bag Tag.**

If there is no dedicated counter
to perform Baggage dropping,
Bag Drop Sentry can be used
either on Counter or Boarding Gate,

All in one:

- * Thermal Bag Tag printer,
- * Windows PC
- * 10,1" touch screen
- * Barcode reader
- * Embedded battery power,
- * Embedded charger,
- * Ethernet and USB ports

Self Service Baggage Dropping is a rising trend in new airway travel experience.

There are two main applications for Self Service Bag Drop process.:

- Full Bag Drop:** Constructed as full installations at baggage area as a full fledged mechanism with custom belt/conveyor structure. (Usually installed during first construction of airport.)
- Retrofit Bag Drop :** Installed onto existing (formerly produced) manual counter/belts as an arch shape. Since no extra belt is required, total cost is lower. Of course, it requires to dedicate some counters to a certain airway continuously. But if that airline does not have frequent flights, counter is left "out of use" for many hours.

At this point Bag Drop Sentry is a fine solution as a third but easiest method:

Bag Drop Sentry is a handy device being able to read Boarding pass or on-line Check-in Barcode.

It instantly prints a Bag Tag (compliant to CUSS platform and current DCS) wherever used.

Bag Drop Sentry comes with extraordinary features:

- * Portable Bag Tag printer (Dimensions : 25 x 32 x 16 cm)
- * Thermal paper rolls are embedded in case housing (No external bracket or roll holders required)
- * Power Supply from Mains/UPS (110/220 Vac) or internal battery. Battery charger is embedded. (A fully charged battery suffices about 400 tag prints (Bag tag or Boarding Pass))
- * Remaining battery life indicator (as percentage) on monitor
- * Ethernet port, extra USB ports external peripheral devices connectivity

Rush Tagger

*An instant Baggage Delivery
for overlimit Cabin Bags
on Departure Gate*



- ➔ Windows'10 MiniPC,
- ➔ Heavy Duty Thermal printer,
- ➔ Barcode scanner (1D, 2D, PDF 417),
- ➔ Embedded Power Supply,
- ➔ Optional Wi-fi module (802.11 a/b/g/n) can communicate with
- ➔ IATA-DCS (Departure Control System) to arrange AEA compatible Bag tags,
- ➔ Optional Motorized Card reader (Magnetic, Chip, NFC),

Many passengers attempt to carry large and heavy suitcases to the cabin...
They either aim not to pay for overlimit (volume or weight) bill, or not to leave important goods.
Or some personal goods may not be allowed to cabin due to safety regulations.

If airline company tries to send such baggages to counter on last minute, boarding time may
be delayed causing serious problems ahead, so they ignore.
But this ignorance costs a considerable income loss.

Rush Tagger is a fast means to print a standard Baggage Tag instantly.
All is to present the boarding pass of passenger towards the device.



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Qualified Aviation Solutions

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*...with an experience of 40+ years
now we are present in 30+ countries*

*Here are some hit application samples.
Maybe from your country too...
Come to join us to update our honour list*

Azerbaijan	Azer-Turk Bank - Baku
Bahrain	King Hamad's Royal Hospital - Manama
Bulgaria	CEZ Balkan Electricity Authority - Sofia
Cyprus	Asbank - Lefkosa
Egypt	United Egyptian Bank - Cairo
Estonia	Estonian Tax and Customs Board - Sillamae
Ethiopia	Awash International Bank - Addis Ababa
France	General Consulate of Turkish Republic - Paris
Germany	General Consulate of Turkish Republic - Hannover
Iraq	Iraq Housing Fund
India	Punjab National Bank - New Delhi
Jordan	Royal Jordanian Airlines - Amman
Kazakhstan	FlyArystan/Air Astana
Kuwait	Ministry of Health - Kuwait City
Latvia	LKB Latvia's Saving Bank - Riga
Lebanon	Credit Libanais Bank - Beirut
Libya	Almadar Telecom Company - Benghazi
Moldova	Mobias Bank - Kishinev
Morocco	Caisse Nationale de Securite Sociale - Rabat
Oman	Ministry of Power - Muscat
Palestine	Al Quds Bank - Jerussalem
Qatar	Primary Health Care Corporation - Doha
Russian Federation	Nordwind Airlines - Moscow
Saudi Arabia	Islamic University Hospital - Medina
Sudan	National Bank of Abu Dhabi - Khartoum
Syria	International Bank Tr&Fn - Damascus
United Arab Emirates	Police Department - Abu Dhabi
Tunis	La poste Tunisienne - Tunisia
Türkiye	İstanbul New Airport - İstanbul

EXPORT