Automatic International Banknotes Examination System
AIBES

Also with data base in Arabic language

State of the art in determining the authenticity of banknotes

AIBES

The Automatic Banknotes Examination System MAIBES 17
Is the state of the art in banknote authenticity inspection in the Forensic arena. The system combines the finest machine vision techniques with powerful user-friendly software and databases in one simple to operate instrument. The system allows all sorts of International Banknotes to be verified in relation with authenticity. The scanner size is 100 x 180 mm (Large banknotes With the system banknotes) which can vary from a few mm to as big as 100 x 180 mm. The system uses special illumination with different sources: Ultraviolet, white and infrared. Two unique cameras with special sensor technology to detect all sorts of special markers, such as color of paper, florescence, hologram characteristics, ink, stamps and many more. The software is easy to use with a lot of sophistication. Optionally, a database can be linked and can be developed for any type of bank note or identity card. Our forensic specialists are involved in training the officers on all possible levels.

Unique camera technology. For this system we use two camera's with special features, tuned for sensitivity towards UV, Visible and infrared. With a unique sensitivity spectrum this system is capable to detect all nuances. The Image analysis system is powered by a powerful Linux Quad core 64 Bit CPU processor. The images can be directly scanned to a powerful desktop computer. All of the identification routines are developed by MicrOptik engineers. Database processing through heavy duty PC and network. The MAIBES 17 system can be used as a stand alone as well as a sophisticated Benchtop PC controller system. The controller inside the MAIBES 17 can be connected with the desktop pc through aUSB cable or through WIFI.
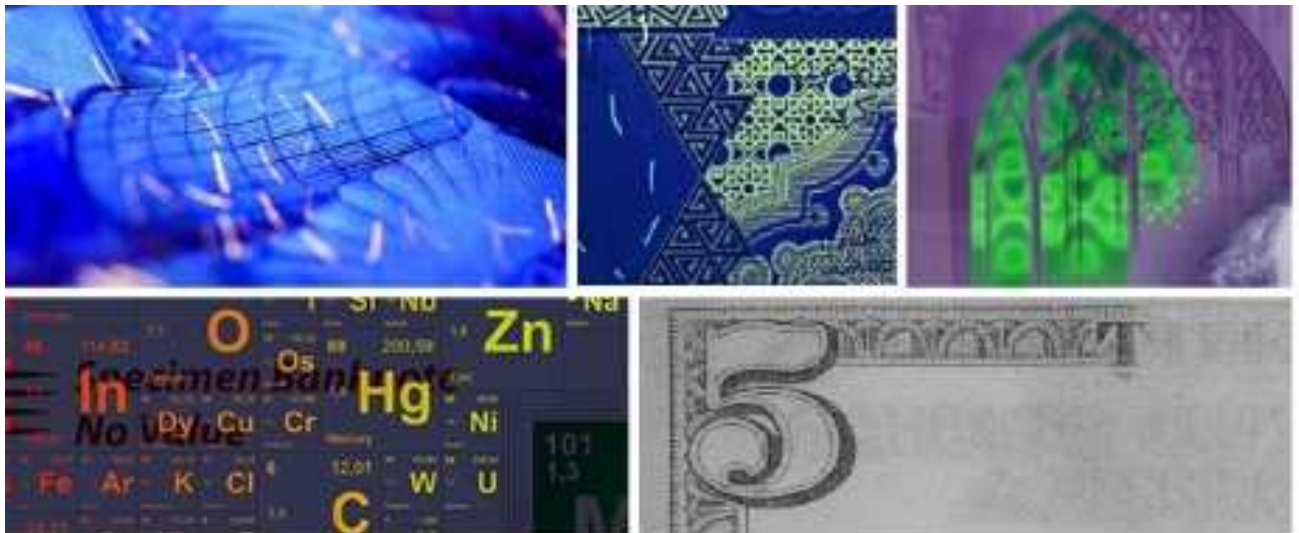
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This system is developed to be used for cutting-edge authenticity verification. The system can be linked to databases through internet. The system can identify watermarks, security threads, color-shifting ink, micro-printing, security ribbons that appears to animate as the note is tilted, concentric fine lines, serial numbers, federal reserve indicators, microprinting, check face and plate number, black plate number, color shifting ink and last but not least Holograms.

For Hologram identification Microptik developed a proprietary technique. This technique is called: 3DHoloscan. The software scans a sequence of images under various angles and recombines the images to a unique fingerprint. This unique fingerprint of the hologram is compared with the ones of suspected fraudulent bank notes. With fully automated superposed image fingerprint comparison the operator can verify the authenticity of the suspected bank note billet with great ease and confidence.

Easy to operate
AIBES

Several effects can be seen when Incident white and two oblique white lights are switched on from two sides. Coaxial white light enhances contrast effects. Transmitted white light shows markers and holograms in different way. Incident ultraviolet light 365 nm, reveals authenticity of holograms. Incident white and incident Ir lights 870nm shows characteristics of markers and holograms. Incident infrared and two obligue infrared lights from two sides 870 nm shows characteristics of markers and holograms.

Advanced & professional design
The AIBES system cameras, are unique high quality cameras which can be used for many purposes
The cameras gives superb images with high resolution for the officer to inspect all sorts of bank notes with great ease. In the AIBES system a powerful The Linux Quad core 64 Bit CPU processor. enables a platform for all sorts of image control functions. When the AIBES system is connected with a powerful desktop pc and with appropriate software installed the complete system can perform very sophisticated forensic tasks. The AIBES software is controlled through an easy to operate interface with self explanatory commands which is described in the manual. Even without experience the officer can work with the camera system. It is that easy!

AIBES 1

7" touch screen Dimension | Analyzer housing: H=200mm, l=270mm, W=165mm. System allowing all sorts of bank notes to be inspected Max size is 100 x 170mm. Weight 2.9 Kg | Electricity 110-240V | Working stage: 100 x 170 mm | Compact display Standard 7" Touch screen | Resolution screen| 800*480 | Resolution camera Sony IMX219 8-megapixel sensor (is 8 Mpixel, 3280x2464) TVL >600 magnification >20x Filters:

420-1100nm IR Low pass 700nm IR high pass 700nm LED light (White) (400-650nm.) Spot, side Coaxial, Bottom and back light

LED UV 254nm, 365nm IR spot 870-950nm Controllable with Instruction and help MRZ inspection (optional) Visible and non visible

IPI photo exposure Bank note treatment Language Firmware Database (optional) touch screen fully integrated Is provided in software (context depending) | ISO ,ICAO, DOC9303 ,ISO7501 , ISO1831, ISO1073-2, OCRB. TEXT : X BARCODE , X OCR MRZ , X RFID-CHIP , X OCR VIZ. Adjustable UV intensity and reading the OCS security text.

IR : MRZ contrast , DOC 9303, ICAO (IR B900 ink). Visible and non-visible IR for bank note data inspection and photo.

Auto scan. Optimum illumination selection. Auto text reading and inspection. Taking a photo of any location in the bank note.

Any popular language. Update with every new SDK install International banknotes database connection for demonstrating authentic banknote,

with security marks shown to help the user.. Database must be from the same manufacturer of the system and supports networking.

Database complete information in Arabic language. User can add additional database.

White , IR, UV light 870nm, 254nm , 365nm photos of the banknote.

Security marks (fine prints , engraved prints , watermarks etc..) Copy of the data base can be installed in a central database and can be linked with terminals.

Banknote details (type, size, country , etc..) Banknote image can be stored in white light , UV , IR.

Display banknotes security mark and its location (hologram, fine print, fibres, etc..).

Updates can be done without affecting the previous database.

Live display of the specific banknote to compare it with the banknote image in the database.

Auto display of the authentic banknote after scanning of the questioned document.

Can display all banknotes for certain country .

Can display the added bank notes by the user in a different background. Fake banknotes that are added by the user displayed in red background.

3DHoloscan technology

Location of the security mark highlighted by squares etc. to do magnification of the area.

Can add images , notes , highlights , comments , etc.. by the user.

Hibernation mode

If not in use longer than 5 min (can be adapted)

Holder

For documents

Heavy duty

Mounting

Special adapters to mount device to counters

Instruction manual

Already in use

In Arabic language

In government Europe

Field of view (scanner size)

100x170mm max, 1x1mm min

Warranty

3 years

Sample required

For test send sample to our laboratory

Processor of Field system

Central Computer system with database (optional)

RP processor

Heavy duty Desktop with Intel® Core™ i7 i7-5820K processor inside.