Middle East’s No.1 Tamper Evident & Anti-Counterfeit Solutions Provider
Anti-Counterfeit Certificates & Documents
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HSA Security Solutions

HSA Security Seals, a division of HSA International offers turnkey Tamper evident and anti-counterfeit solutions.

We offer everything you need to protect your brand & assets:

✓ **Technologies** – More than two dozen & growing innovating and proven anti-counterfeit technologies.
✓ **Products** – More than 500 tamper evident products, mostly customizable.
✓ **Experience** – More than a decade’s experience in over 15 countries.
✓ **Success Stories** – Proven Solutions embraced by virtually every industry segment.

Some of our customers:
Our solution portfolio is categorized as follows:

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An estimated 200,000 fake degrees are sold each year in US alone for anything between US$ 1,000 to US$ 30,000 per ‘qualification’. **CNN & Wired.com**

More than 100 fake Chinese universities now offer diplomas & degrees for sale to students & corporate elites. **The Economist.**

Fake degree buyers are everywhere – Pentagon, NASA, Hospitals, Fire Departments & more. Between 2003 – 2004 Government Accountability Office’s survey found 463 US Federal Employees to have fraudulent degrees. **GAO**

The so called ‘Belford University’ in Dubai is a diploma & degree mill selling counterfeit degrees. Sandra Davie, a Singapore based investigative journalist was able to purchase a doctorate degree from this university for her dog – courired by DHL from Dubai. **Khaleej Times.**
Besides dozens of reasons why educational institutions must make every effort to prevent counterfeit certificates, the most important fact is that counterfeit degrees:

Cost Lives!
Diploma/Degree Mills

-an illegal organization that sells academic degrees and diplomas with substandard or no academic study and without recognition by legitimate educational accrediting bodies. The buyer can then claim to hold the purchased degree and the organization makes a profit. Many of these fraudulent organizations claim accreditation by fake or unaccredited licensing bodies, creating another layer of supposed authenticity.

-also exist because many organizations do not take the time to validate the authenticity of a degree or academic institution.
Anti-Counterfeit Benefits

Reputed colleges & universities around the world constantly upgrade or change their security policies in line with market threats – be it physical security of the campus to the graduate certificate.

Although no degree or a bank currency note is ever counterfeit proof but by adopting latest technologies and design changes, we can stay one step ahead of counterfeiters, which is why it is almost impossible to find a counterfeit degree of world’s top educational institutions.

Some of the benefits but not limited to of implementing such solution are:

- Increased positive reputation of the university
- Increased student enrollments.
- Better job prospects for graduate students.
- Increased chances of international accreditations by renowned bodies.
- And more…
Our anti-counterfeit solutions are developed around 4 main principles;

- **Very High Security**: they must be as difficult as possible to counterfeit.

- **Overt** – Visual Judgment: end users or clients should be able to verify the document / consumer good’s authenticity without the need for special equipment.

- **Covert** - Verification using a device: a covert element should be included in the feature set of a solution. For e.g. UV Invisible ink or Smell sensitive ink.

- **Tamper Evidence**: it should be possible to detect when a anti-counterfeit solution has been tampered with.
Educational Institutions suffer in the long run!

Colleges & Universities who do not invest on anti-counterfeit documents, means:

1. **Loss of Reputation & Integrity:**
The Reputation of the university who's certificates are not protected by anti-counterfeit technologies and are easily copy-able, this can potentially lead to lower reputation and integrity of the institution hence directly affecting the alumni, current & future students.

2. **Degree Mills make more money!:**
Certificates that easily copied means degree mills have more options to provide to their 'customers' and hence make more illegal money via fraud.

3. **Indirectly risking lives:**
Counterfeit certificates also mean fake doctors or engineers hence putting human lives at risk.

4. **Employers Shy Away**
Well known employers hesitate hiring people from universities/college who have an unfortunate reputation of easy availability of counterfeit degrees.
-There are many victims in what the perpetrators of this fraud perceive as a victimless crime, or “white lie.” The cost to employers is significant however you look at it. We all know there are substantial costs to hire, train and retain employees.

-These costs can range from the thousands for entry level employees to tens of thousands for the rank and file, and as high as six figures for top executives.
Some of our Anti-Counterfeit Technologies

Overt – Visually Identifiable:

Security Paper: Usually thick paper with embedded watermarks, visible & invisible fibers.

Intaglio Printing: printing technique in which the image is incised into a surface or special engraved printing. Commonly used on bank notes, visas & passports.

2D Barcode (Barcodes that come in patterns of squares, dots, hexagons and other patterns imager termed 2D matrix codes)

Alpha Numerical Security Serial Numbering using various styles & patterns.

Alpha Numerical Pin Number

OVC: Optically Variable Colour changing Ink

Hot Stamped Holograms Silver or Gold: Highly secured hologram with visible & hidden features. Few microns of foil depth is bonded into the paper to prevent removal or transferring.
Some of our Anti-Counterfeit Technologies

Overt – Continued

**Hot Stamped Foil with Fibers:** Unique fibers and threads placed randomly over the foil and hot stamped.

**Encrypted QR Code** – Commonly used on government documents only.

**QR Code to Image** – A pre-printed image adjacent to QR Code on the document will appear as exactly the same on mobile phone as well when scanned using any QR app.

**Colour Embossed Logo** – Embossed logos & text on any document or label.

**Guilloche Design** – High resolution, fine, micro sized & complex interlaced background used commonly on currencies worldwide.

And more.
Some of our Anti-Counterfeit Technologies

Covert – Hidden Features:

**Microseal**: A 3D object as small as 0.0045u2 (Laser etched) which technology is patterned can be embedded onto labels, vouchers as well as certificate. It is very hard to copy or duplicate.

**Invisible Fluorescent Black to Red Ink** (The logo will change from black to red color when it is viewed under UV light).

**Ultra Violet Inks**. Available in secure Red, Green, Blue & Yellow.

**Heat Sensitive Ink** – Text colour will change from magenta to white when rubbed by finger. Commonly used on bank cheques.

**Smell Sensitive Ink** – Releases a sweet smell when rubbed at a particular surface usually known to buyers of solution only.

**White Water Sensitive Ink** – Image disappears when a drop of water is applied and reappears when fully dries.

And more…
Example of Anti-Counterfeit Features

- Invisible Fluorescent Black to Red Ink
  - The text will change from black to red colour when it is viewed under the UV light.

- Water Sensitive Ink
  - The image or text shows up clearly when a drop of water is applied and fades when dry.

- Optically Variable Colour Changing Ink
  - Highly secure and widely used on major bank notes & travel visas. Easily identifiable visually when viewed in light and the ink changing its colour tone. Various dual colour options available.

- Hot Stamped Hologram
  - Highly secure silver/gold hologram with visible and hidden features. Four million of full depth is bonded into the paper to prevent removal or copying.

- QR Code Encrypted (Standard)
  - A preprinted image adjacent to QR code on the document will appear on exactly the same on mobile phone as well when scanned using any QR app.

- Watermark Paper with UV Fibers
  - This watermark not printed but is embossed into the paper fiber making it very difficult to replicate. Holographic visible enable UV fibers allow easy identification of authentic ticket or vouchers paper.
Our fully customizable for every client, web based Certificate Management System allows any organization or institution to issue documents securely.

Some of the prominent features are but not limited to:

- Document online verifiable using any Smartphone with web access.
- Multi-Tier Approval System before printing of a document/certificate with SMS & Email notification to line managers.
- Full online database log of every action and activity by a user of the system. The log can never be deleted.
- Certificate layout and design module.
- Comprehensive record of serial numbers, PIN numbers, certificate numbers.
- Advance search capabilities.

Benefits of using our system:

- Ability to host on client server or use our server using 256 Bit SSL Encryption
- Can be accessed from anywhere in the world
- Prevents illegal issue of certificates/documents by a single person without tier level approval.
- User logs can never be deleted
- Full customizable system – white labeling, adding new features, connectivity with existing system & more.
Turnkey Solution in Four Steps

1. Initial Discussion & Explanation of Anti-Counterfeit documents:
   Our specialist team will speak to end users and understand existing documents in use and conduct their own research on risk level to gauge the level of security needed in a document. We will also explain various features and security paper types to choose from.

2. Requirement Gathering:
   These also include but not limited to:
   - Number of students enrolled & Annual consumption
   - Software requirement & Backend verification system requirement

3. Design & Submission of Artworks:
   Our trained security graphic designers will liaise with end user for their document security design needs based on the selected security features. The team then creates various set of designs to choose from.

4. Pricing, Approval & Delivery:
   Pricing is done after a design is semi-finalised as prices are based on selected feature, size of each security feature, security paper type and quantity.
   Approval is followed by delivery on agreed timelines – partial, full or installment based delivery.
HSA Security Seals
c/o HSA International Group TRD. LLC.

Showroom Address: Al Khabeesi Area, Ittihad Road (towards Dubai), Opp. Dubai Airport / Galadari Motors, Next to Siemens/Scientechnic Showroom.
Nearest Metro Station: Abu Hail (5 minutes walking distance).
P.O. Box 233181, Dubai, United Arab Emirates
Tel: +971 (4) 2527414  Fax: +971 (4) 2527410
Email: info@hsasecurityseals.com