



# MASTER CBRNe



Chemical, Biological, Radiological, Nuclear and explosive  
Department of Industrial Engineering and School of Medicine and Surgery

## International Master Courses in “PROTECTION AGAINST CBRNe EVENTS”

The evolution and increase in Safety and Security threats at an international level place remarkable focus on the improvement of the emergency systems to deal with crisis, including those connected to ordinary and the non-conventional events (Chemical, Biological, Radiological, Nuclear, and explosives).

In every industrial Country there are multiple entities with specialized teams in very specific fields, but the complexity of the events requires professionals that not only have specific know-how, but also expertise in the relevant areas.

Given the global interest in these issues, the Department of Industrial Engineering and the Faculty of Medicine and Surgery of the Tor Vergata University organize the international Master Courses in “Protection against CBRNe events”: I Level Master Course in “Protection against CBRNe events” (120 ECTS) and II Level Master Course in “Protection against CBRNe events” (60 ECTS). These courses aim at providing attendees with comprehensive competences in the field of CBRNe Safety and Security, through teaching and training specifically focusing on real needs.

**The creation of the “Click & Read” newsletter, that connects directly to the International CBRNe Master website simply clicking on the blue titles of each news, would be a monthly appointment about the main news around International CBRNe Master Courses... and more!**

**Enjoy!!!**

*International CBRNe Master Courses*

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## Click & Read N° 48 - June 2018

### 06.28.2018 - SIGNATURE OF THE MOU BETWEEN INTERNATIONAL MASTER CBRNE AND THE ABU DHABI POLICE

Dear colleagues, the 28th of June 2018 the International Master courses in Protection against CBRNe events of the University of Rome Tor Vergata and the Police of Abu Dhabi GHQ (United Arab Emirates) signed a Memorandum of Understanding to cooperate in the didactic, training and scientific research areas.

The signing ceremony was held at the Abu Dhabi Police Head Quarters, in the presence of the Rector of the University of Rome Tor Vergata – **Prof. Giuseppe Novelli** and the Major **General Maktoom Ali Elsharifi together with** Local Authorities and a delegation of representative of the CBRNe Masters. The CBRNe Masters were represented by **Prof. Leonardo Palombi** (Director of the CBRNe Master courses), **Dr. Pasquale Gaudio** (Coordinator of the CBRNe Master courses), **Dr. Andrea Malizia** (Didactic Coordinator of the CBRNe Master courses), members of the didactic board such as **Lt. Col. Bernd Allert** (COE JCBRND), **Prof. Francesco d’Errico** (University of Pisa and University of Yale) and the colleagues **Prof. Massimo Papa** representing the Faculty of Law and **Prof. Loredana Santo** representing the Faculty of Engineering of our University.

After the signature of the MoU, the Rector handed to the first group of officers, who successfully completed the CBRNe Master course in the A.Y. 2016/2017, their diploma. We want to congratulate with **Sami Alsaadi, Salem Alkaabi, Sultan Alkaabi, Abdulla Alseraifi, Salem Alrashidi** and take this chance to thank **Prof. Amer Hosin** and **Major Ibrahim Al Marzouqi** to make the formalization of this cooperation possible.

It is a crucial moment for our University that continues to encourage international cooperation in order to promote not only scientific growth, but also social and human growth.

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### PRESS RELEASES

- [http://web.uniroma2.it/module/name/Content/action/showpage/content\\_id/58638](http://web.uniroma2.it/module/name/Content/action/showpage/content_id/58638)
- <http://www.scuola24.ilsole24ore.com/art/universita-e-ricerca/2018-06-28/accordo-tor-vergata-e-polizia-abu-dhabi-spingere-training-e-ricerca-scientifica-164837.php?uuid=AEHTk3DF>
- <https://www.agenzianova.com/a/0/1979390/2018-06-28/italia-emirati-universita-roma-tor-vergata-e-polizia-stato-abu-dhabi-firmano-accordo-per-collaborazione-didattica-ricerca-scientifica>
- [https://it.geosnews.com/p/it/lazio/fr/universita-roma-polizia-abu-dhabi-a-lezione-a-tor-vergata\\_20608599](https://it.geosnews.com/p/it/lazio/fr/universita-roma-polizia-abu-dhabi-a-lezione-a-tor-vergata_20608599)
- <https://www.le-ultime-notizie.eu/articolo/la-polizia-di-stato-di-abu-dhabi-in-aula-a-tor-vergata/4115262>
- [https://www.google.it/amp/s/www.ilmessaggero.it/AMP/primopiano/universita\\_tor\\_vergata\\_master\\_nucleare\\_abu\\_dhabi-3824545.html](https://www.google.it/amp/s/www.ilmessaggero.it/AMP/primopiano/universita_tor_vergata_master_nucleare_abu_dhabi-3824545.html)
- <http://www.gulftoday.ae/portal/ab233cc0-b3af-4e3c-bbe1-82923f1ef6a9.aspx>

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**Prof. Giuseppe Novelli and the Major General Maktoom Ali Elsharifi**

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### 06.26.2018 - ANOTHER JOINT ACTIVITY FOR THE H2020

#### #ENOTICE PROJECT!

Dear colleagues, last week, the H2020 #eNOTICE partners gathered together in Bruxelles on the occasion of the third Joint Exercise, organized in Bruxelles by Université Catholique de Louvain in collaboration with the Belgian Defence, and Civil Protection.

The exercise represented not only the opportunity to test new equipment, procedures, and technologies, in a multi-agency framework but also to meet representatives of #DGHOME, #DGDEVCO and #DGECHO, to evaluate new strategies and synergies between #eNOTICE and the needs of the EU concerning CBRN training.

Dr. Mariachiara Carestia, representing the University of Rome Tor Vergata and Capt. Marco Carosi representing the Joint NBC Defence School attended the exercise and the project meetings, giving a preview of the next Joint Activity, which will take place in October in Rieti, in conjunction with the first annual workshop of #eNOTICE.



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### 06.25.2018 - MASTER CBRNE - R/N MODULE CONCLUSION

Dear colleagues, it is a pleasure to communicate that the module R/N of the second level #MasterCBRN has been successfully concluded last week. The lecture on Thursday started with two hours of Dr. Massimo Pinto from ENEA that explore the main effects of R/N substances on the human body. After that, we moved on the lecture of Michael Thornton (#INAC) about the satellite investigation techniques to control the suspected sites.

Michael Thornton and Alba Iannotti (#INAC) moved on the Table Top Exercises that has seen the class, divided into 4 groups, face an R/N emergency simulation. After the TTX results presentation, the students had a seminar with Elif Surer about the serious games applied on CBRNe and after that, we have started the oral session.

We want to thank Prof. Francesco d'Errico for the module coordination, his researchers (Andrea Chierici and Daniel Azevedo) for their support in the exam session and all the lecturers involved that have been amazing.



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### 06.22.2018 - THE CONFERENCE CONCLUDING MITIREL – AN INTERNAL SECURITY FUND-POLICE PROJECT

The conference concluding MITIREL – an Internal Security Fund-Police Project, was held at the Industrial Chemistry Research Institute in Warsaw and at the Conference and Recreation Palace and Folwark in Łochów (Poland) on June 19th and 20th 2018,

The conference was organised as a part of the EU Project Coordinated trans-national training programme for prevention and mitigation of CBR release induced by non-state actors led by Industrial Chemistry Research Institute (ICRI) in partnership with Hotzone solution BV, Hochschule für den öffentlichen Dienst in Bayern and International Centre for Chemical Safety and Security (ICCSS). The training was

The International #MasterCBRN, represented by Riccardo Quaranta, were invited to participate, presenting a report on the CBRN training approach and methodology of our courses. The project, which was a great success, was well concluded with this conference, which we hope will lead to new collaborations aimed at improving everyone's safety and security.



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### 06.21.2018 - 20 JUNE 2018 - R/N MODULE

Dear colleague, yesterday we had a series of very interesting lectures at the University of Rome:



9.00-11.00: Prof. Riccardo Santoni, full professor of Nuclear Medicine at the Faculty of Medicine of University of Rome Tor Vergata, that has introduced the principles of the effects of radioactive substances.

11.00-13.00: Dr. Pio Ciro Aspetti that is a researcher from the BMD spa, a company leader in the CBRN detection, has explained the products of his company on the R/N detection

14:00 - 16: 00: Xavi Sabate, firefighters officer from the Institut de Seguretat Pública de Catalunya (<http://ispc.gencat.cat/ca/inici>) that has done an operative lecture on how to face an emergency R/N following the students.

16:00-18:00: Dr. Carlos Rojas-Palma from the [SCK-CEN \(Belgian Nuclear ResearchCenter\)](http://www.sckcen.be/en/About/Introduction) that has done an interesting lecture about (<https://www.sckcen.be/en/About/Introduction>)

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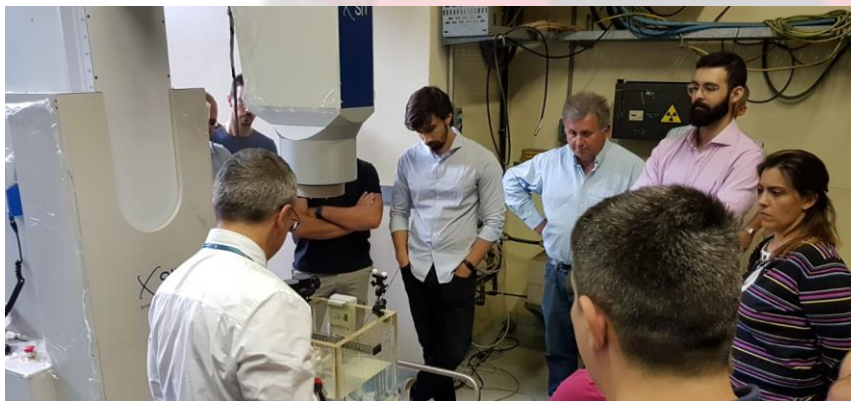


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### 06.20.2018 - SORDINA IORT TECHNOLOGIES - ELECTRON INTRAOPERATIVE RADIATION THERAPY

Dear colleagues, 19 June 2018 the class of the II<sup>nd</sup> Level #MasterCBRN has been in Aprilia hosted by the company [SIT Sordina](http://www.soiort.com/en/) leader in the LINAC techs. The civil aspects of the CBRNe risks (including the medical area) are a fundamental part of the course. The students start the lecture with Prof. d'Errico and then that gave them the main principles of the RN risks and detectors then Dr. Giuseppe Felici, scientific director at #SITsordina, show us their products and applications on the RN instruments applied to the medical applications (especially for the cure of cancer). They bring the class to visit the laboratories where they produce their own technologies. The day has been closed, in the afternoon, with a lecture by Erica Fanchini from #CAENsys (<https://caensys.com/>) that has presented the products for RN detection and identification (and all the futuristic technologies that they have developed) together to the presentation of a possible scenario for its applications. We want to thanks all the lecturers for the excellent work and the #SITsordina for hosting us.



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### [06.19.2018 - MASTER CBRNE AT THE ITALIAN INSTITUTE OF HEALTH \(ISS\)](#)

Dear colleague, 18 June 2018 the second level #MasterCBRN has been hosted by the Italian Institute of Health (Istituto Superiore di Sanità).

The class has been there for the first lectures of Module 6 - R/N risk coordinated by Prof. Francesco d'Errico (Yale University and Pisa University). We want to thank Dr. Paola Fattibene for the hospitality and the excellent organization ([read more...](#))



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### 06.15.2018 - DEVELOPMENT OF A DEVICE TO MEASURE MASS AND RESUSPENSION RATE OF DUST INSIDE CONFINED ENVIRONMENTS

Dear colleagues,

it is a pleasure to announce that the publication of a new scientific paper: [Malizia A., Rossi R. \(2018\). "Development of a Device to Measure Mass and Resuspension Rate of Dust inside Confined Environments". MEASUREMENT SCIENCE REVIEW, 18, \(2018\), No. 3, 100-106](#)

Link: <http://www.measurement.sk/2018/msr-2018-0015.pdf>

Enjoy the reading!

### 06.14.2018 - 56° CORSO DELLA SCUOLA SUPERIORE DI RADIOPROTEZIONE "CARLO POLVANI"

Gentili colleghi,

Il prossimo 06 Luglio si terrà a Cosenza, presso l'Università della Calabria (Rende), il 56° Corso Polvani, dedicato alla **dosimetria neutronica in ambito ospedaliero**. Iscrizioni aperte online a [questa pagina](#). Disponibili 80 posti, fino ad esaurimento. Prevista l'attribuzione di crediti #ECM. Per i dettagli si veda la locandina a questo [link](#).

Il Direttivo dei Master Internazionali in Protezione da eventi CBRNe (#MasterCBRN).

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### 06.13.2018 - NEW GRANT WON BY THE CBRNE MASTER COURSES

Dear colleagues,

It is a pleasure announce that the International Master courses in Protection against CBRNe events - University of Rome Tor Vergata have won a second grant research program in the H2020 - Research and Innovation Framework Programme

#CBRNe Master courses are a partner of the project "MELODY - A harmonised CBRN training curriculum for first responders and medical staff", together with NEDERLANDSE ORGANISATIE VOOR TOEGEPAST, RIJKSINSTITUUT VOOR VOLKSGEZONDHEID EN MILIEU and NATUURWETENSCHAPPELIJK ONDERZOEK TNO (NL); ISEM-INSTITUT PRE MEDZINARODNU BEZPECNOST A KRIZOVE RIADENIE, NO (SK); AUTONOOM PROVINCIEBEDRIJF CAMPUS VESTA (BL); KESZENLETI RENDORSEG (HU); UNIWERSYTET LODZKI (PL); Länsi-Suomen Pelastusharjoitusalueäätiö (FI); European Council of Disaster Medicine (ECDM) (FR).

The project is coordinated by the Studiecentrum voor Kernenergie/Centre d'Etude de l'Energie Nucléaire (BE).

The call won is: ISFP-2017-AG-PROTECT.

The activity: A harmonised CBRN training curriculum for first responders and medical staff

Activity: ISFP-2017-AG-PROTECT.

Abstract of the project: ([read more...](#))

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### [06.11.2018 - A new scientific paper published](#)

Dear colleagues, It is a pleasure announce that the new scientific paper published:

Malizia A., Gelfusa M., Ciparisse J., Rossi R., Lucaroni F., Palombi L., De Angelis D. and Gaudio P. (2018). "A technical proposal for active sensing monitoring activities in the area of Viggiano (south of Italy) and in rural and urban areas: LIDAR/DIAL techniques to detect the presence of pollutants and to control biomass combustion products like CO or PM10". Biomedicine & Prevention (2018) - vol. 1 - (154) - DOI:10.19252/00000009A.

LINK: <http://www.biomedicineandprevention.com/manuscript/technical-proposal-active-sensing-monitoring-activities-area-viggiano-south-italy-and>

Enjoy the reading!

### [06.08.2018 - INSTITUT DE SEGURETAT PÚBLICA DE CATALUNYA](#)

Dear colleagues, It is a pleasure announce that a delegation of the International Master courses of the University of Rome Tor Vergata has been invited from the Institut de Seguretat Pública de Catalunya - School of the Firefighters and Civil Protection of Catalunya. ([http://ispc.gencat.cat/ca/formacio/02\\_escola\\_bombers\\_i\\_prot\\_civil/](http://ispc.gencat.cat/ca/formacio/02_escola_bombers_i_prot_civil/))

The visit has been held last 23-24 of May and the representative of the ISPC has organized an interesting visit to the school and with all the Entities that have a formal cooperation with the school in Catalunya.

It has been an important occasion ([read more...](#))

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### [06.01.2018 - Security, Development, and Governance CBRN and Cyber in Africa](#)

Dear colleagues, it is a pleasure announce the new publication:

Adriaan van der Meer, Alberto Aspid (2017). "**Security, Development, and Governance CBRN and Cyber in Africa**". Cyber and Chemical, Biological, Radiological, Nuclear, Explosives Challenges: Threats and Counter Effort Springer International Publishing AG, as part of the Part of the Terrorism, Security, and Computation book series (TESECO.), pag. 385-407. Guest editors: Maurizio Martellini, Andrea Malizia. DOI: <https://doi.org/10.1007/978-3-319-62108-1> ; Print ISBN: 978-3-319-62107-4; Online ISBN: 978-3-319-62108-1; Series Print ISSN: 2197-8778; Series Online ISSN: 2197-8786.

[LINK: https://link.springer.com/chapter/10.1007/978-3-319-62108-1\\_19](https://link.springer.com/chapter/10.1007/978-3-319-62108-1_19)

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