НАЦИОНАЛЕН ВОЕНЕН УНИВЕРСИТЕТ „ВАСИЛ ЛЕВСКИ”
5000 гр. Велико Търново, бул. „България” №76
телефон: (062)618 822; факс:(062)618 899; e-mail: nvu@nvu.bg

СТАНОВИЩЕ

от

професор д.н. Веселин Петров Мадански
департамент „Езиково обучение и физическа подготовка“
при Национален военен университет „Васил Левски“
адрес: гр. Велико Търново, бул. „България“ №76, п.к. 5000

на научните трудове, представени по конкурс за заемане на академична длъжност „Доцент“ в област на висшето образование 9. „Сигурност и отбрана“, професионално направление 9.1. „Национална сигурност“ в катедра „Национална и регионална сигурност“ при факултет „Сигурност и отбрана“ на Национален военен университет „Васил Левски“, обявен със заповед на началника на Национален военен университет „Васил Левски“ № РД-02-807/11.08.2025 г. и обнародван в Държавен вестник № 71/29.08.2025 г.

на кандидата:

гл. ас. д-р Георги Костов Баев
главен асистент в катедра „Национална и регионална сигурност“ при факултет „Сигурност и отбрана“ на Национален военен университет „Васил Левски“, гр. Велико Търново

В. Търново
2025 г.

1. Обща характеристика на научноизследователската, научно-приложната и педагогическата дейност на кандидата.

Кандидатът д-р Георги Баев е приложил общо 29 научни труда, с общ обем от 563 страници, 27 от които са публикувани след придобиването на ОНС „доктор“ и включват: 1 монография - хабилитационен труд с обем от 227 стр., 1 книга на базата на защитен дисертационен труд за присъждане на ОНС „доктор“ с обем от 141 стр. и 25 научноизследователски разработки (научни доклади и статии) с общ обем от 176 стр.

Разпределението на научните трудове по съответни рубрики, в страната и в чужбина, е както следва: 25 бр. научни публикации са в страната, а 2 бр. – в чужбина. От представените научноизследователски разработки, публикуваните в научни издания, реферирани и индексирани в световноизвестни бази данни с научна информация са разпределени, както следва: в Scopus – 3 бр. и в Web of Science – 1 бр. Останалите научноизследователски разработки са публикувани в нереферирани списания с научно рецензиране или в редактирани колективни томове.

Приемам за рецензиране 27 научни трудове, които съответстват на предметната област на обявения конкурс.

Не приемам 2 бр. научни трудове посочени в Приложение № 5 - Изисквания на НВУ „Васил Левски“ за заемане на академична длъжност „доцент“ по чл. 2б, ал. 5 на ЗРАСРБ, които са били представени по процедура за придобиване на ОНС „доктор“, както следва:

- Доклад с тема: „Космос и промяна в климата. Дистанционни изследвания на катастрофални антропогенни и естествени екологични процеси на Земята“, Сборник доклади от годишна университетска научна конференция на НВУ "Васил Левски", 3-4 юли 2014 г., ISSN 1314-1937 Том 4, 128-134; Издателски комплекс при НВУ „Васил Левски“;
- Доклад с тема: „Модел за управление на сателитната информация за осигуряване на екологична сигурност“, Сборник с доклади от годишна университетска научна конференция на НВУ "Васил Левски", 16-17 юли 2015 г., ISSN 1314-1937, Том 11, 249-256; Издателски комплекс при НВУ „Васил Левски“.

Кандидатът е предоставил 19 бр. цитирания.

Резултатите от научноизследователската, научноприложната и педагогическата дейност на гл. ас. д-р Георги Баев са представени чрез публикационната му активност в страната и чужбина в периода 2012 – 2025 г. в следните области: **Сигурност и отбрана**: проблеми на националната и международната сигурност, отбранителните стратегии и управлението на рискове. Специален акцент е поставен върху екологичната сигурност – по-специално наблюдението на околната среда с цел навременно предупреждение за бедствия и кризи;

Космически технологии и сателитни системи: използването на спътникови методи за мониторинг на Земята и приложението им в сигурността и възможностите, които малките сателити (например CubeSat наносателити) предоставят за наблюдение на природни бедствия, екологични показатели и критична инфраструктура, като предлага модел за управление на сателитната информация в национална система за реагиране при кризи, включващ мрежа от микро-сателити, работещи координирано за бързо заснемане на земната повърхност при бедствия; **Философия и етика**: философските основи на сигурността, етиката на технологиите и методологията на научните изследвания, като важна база за критическо мислене, морални ценности и разбиране на света – умения, които са нужни и в областта на националната сигурност; **Изкуствен интелект и киберсигурност**: въздействието на новите дигитални технологии, развитието на изкуствения интелект (AI), навлизането на машинното обучение, киберзаплахите и автономните бойни системи и анализира как технологичната трансформация изисква нов поглед към сигурността – от личните данни и киберпространството до националната отбрана.

Патентовано изобретение: в екип по разработването на „Сателитен спектрофотометър за мониторинг на околната среда“ – иновативно устройство/система за дистанционно наблюдение. Това изобретение е резултат от съвместна работа с Института за космически изследвания и технологии при БАН и е патентовано, като през 2017 г. му носи наградата „Еврика“ за млад изобретател. Спектрофотометърът представлява уред за измерване на характеристики на атмосферата и околната среда от борда на спътник, като може да се използва за подобряване на екологичния мониторинг и ранното откриване на замърсявания или климатични изменения. Отличието от фондация „Еврика“ е престижно признание за младите научни таланти в България.

Задълбоченият преглед на научните публикации, с които кандидатът участва в настоящия конкурс доказва техните научни качества и позволява да се постави висока оценка по отношение на актуалност, оригиналност и умения за научноизследователска работа.

Представената научна продукция е отражение на научноизследователската работа и свидетелство за компентентност и присъствие на автора в национален и международен план.

2. Становище относно наличието или липсата на плагиатство.

В процеса на работата ми като член на научното жури не е получаван неанонимен и мотивиран писмен сигнал за установяване на плагиатство в публикациите на кандидата по конкурса. Същият е приложил декларация, удостоверяваща за липсата на плагиатство в научните трудове, в съответствие с чл. 53, ал. 1, т. 5 от Правилника за прилагане на Закона за развитие на академичния състав в Република България.

3. Оценка на педагогическата подготовка и дейност на кандидата.

Завършва бакалавърска степен по „Социални дейности“ във Великотърновския университет „Св. св. Кирил и Методий“ (2005-2009, ВТУ). Продължава обучението си с две магистърски степени – Магистър по философия (2016–2018, ВТУ) и Магистър по административна и информационна сигурност (2010–2012, НВУ „Васил Левски“, факултет „Артилерия, ПВО и КИС“).

В периода 2013–2015 г. Георги Баев е докторант в НВУ „Васил Левски“ (факултет „Артилерия, ПВО и КИС“), като успешно защитава дисертация на тема „Изследване на възможностите на сателитния мониторинг за управление на екологичната сигурност“ . С придобиването на образователната и научна степен доктор в направление 9.1. Национална сигурност, „Организация и управление извънсферата на материалното производство (отбрана и сигурност) , д-р Баев се утвърждава като млад учен с интердисциплинарен профил, комбиниращ знания по сигурност, управление, екология и технологии.

В Националния военен университет през 2013 г. заема длъжността асистент в Института за научноизследователска и иновационна дейност на НВУ, (2013–2016). След защита, през 2016 г. се присъединява към катедра „Национална и регионална сигурност“ като редовен асистент, а от 2017 г. заема академична длъжност „главен асистент“ в същата катедра като е водил лекции по дисциплините: Философия; Бизнес етика и деонтология; Терминология на сигурността и отбраната; Технологии и сигурност; Академично писане.

Участва в работна група „Космическа политика“ към Министерството на икономиката (структура на Министерския съвет) по въпроси на космическите технологии и сигурността. Член-експерт на технически комитет „Сигурност на обществото и гражданите“ към Българския институт по стандартизация, където участва в разработването на стандарти свързани с обществената сигурност.

Работа по проекти, ръководене на студентски групи и участие във форуми: от 2015 г. гл. ас. д-р Баев е основател и ръководител на клуб за курсанти и студенти, ориентиран към космическите технологии “Space Division”. В рамките на този клуб повече от 50 млади офицери и студенти са преминали обучение и са участвали в различни проекти, свързани с космоса, като разработват иновативни идеи: проекти за наноспътници със сензори за мониторинг на водите при наводнения, участие в национални и международни състезания с космическа насоченост, като е завоювал множество награди, включително второ място в престижно национално технологично състезание през 2019 г. с учебен макет на куб-сателит за популяризиране на науката сред децата, международния хакатон “CASSINI” (2023), посветен на космическите технологии в подкрепа на сигурността и отбраната, глобалния хакатон ActInSpace (инициран от Френската космическа агенция и Европейската космическа агенция). През 2020 г. разработват софтуерна система за спътник, която да засича бедствия и да информира населението чрез спешни безжични сигнали на мобилните телефони в застрашената зона; младежкия фестивал „Ало, Космос! Говори България“

(2021) в София Тех Парк, относно най-новите постижения в космическите технологии, изкуствения интелект, роботиката, нанотехнологиите и др.; инициативата “Innovation Academy” – ежегоден конкурс за студентско предприемачество и иновации.

Под негово ръководство екипите от клуб “Space Division” имат спечелени медали и призови места от над 30 национални и международни състезания и хакатони, включително второ място на национален конкурс през 2019 г. (с макет на учебен спътник) , отличия от конкурс на Европейската космическа агенция (2017) срещу отбори от три континента , както и призове от форуми като NASA Space Apps Challenge и др. Участието в подобни събития подпомага връзката между военната академична общност и гражданския сектор на иновациите.

Следва да се отбележи и приносът на д-р Баев към популяризирането на науката – през 2018 г. Българското национално радио го представя в рубриката „Човекът“ със заглавие „Да бъдеш изобретател – историята на Георги Баев“, за пътя му в науката и изобретенията. Тази публичност допълнително утвърждава образа му на млад учен и иноватор.

Главен асистент д-р Георги Баев се откроява като проктивен и динамичен учен и преподавател, който умело съчетава интересите си в областта на националната сигурност, високите технологии и философията. Чрез преподавателската си работа, научните изследвания и обществените инициативи, д-р Баев допринася за развитието и популяризирането на знанията в сферата на сигурността и технологиите.

4. Основни научни резултати и приноси

Във връзка с представените за участие в конкурса научни трудове са дефинирани следните научни и научноприложни приноси:

4.1.Научни приноси:

− Представено е концептуално ново определение в българската научна литература на понятието „технологично неравенство” в контекста на националната сигурност, разглеждано не само като икономически, а като стратегически и философски проблем – публикация № 3.

− Разработен е интердисциплинарен модел на анализа, който обединява подходи от философия на технологиите, социология, сигурност и държавно управление, в рамките на който е изградена типология на рисковете, произтичащи от технологичните пропасти – кибер, социални, икономически и институционални и е въведено понятието „технологична справедливост“ като основен етичен и стратегически принцип в управлението на сигурността – публикаци № 3.

− Формулирана е теоретична рамка за разбиране на „двойствеността“ на изкуствения интелект (ИИ) и автономните системи в националната сигурност едновременно като източник на нови способности и като генератор на нов тип рискове – публикации № 5., 7.15., 7.16., 7.17., 7.18.

− Анализирани са техническите и оперативните уязвимости на системите с изкуствен интелект (атаки, зависимост от данни, непрозрачност на алгоритмите) и са класификацирани видовете заплахи - кибер, автоматизация, автономни оръжия, когнитивни информационни кампании и др., включително взаимовръзките между тях, както и етико-правни проблеми при автономните оръжейни системи, ролята на човека в управлението и необходимостта от „морална архитектура“ на машините – публикации № 5., 7.15., 7.16., 7.17., 7.18.

− Представена е теоретична рамка, в която наносателитите се разглеждат като част от комплексна „космическа екосистема“ с взаимозависимости между сигурност, технологии, икономика и околна среда, като са разработени теоретични модели, интегриращи екологични, технически и социални параметри в обща рамка на екологичната сигурност – публикации № 7.1., 7.2.,7.3., 7.4., 7.6., 7.7., 7.8., 7.9.

− Формулирани са модели на зависимости, които показват как демографски, икономически и социални фактори влияят върху устойчивостта на населението при кризи – публикации № 6.1., 6.2., 6.3., 6.4., 7.11.

− Чрез съчетаване на философия, етика, психология и теория на сигурността е представен теоретичен модел, в който сигурността се разглежда като върховна ценност, равнопоставена на щастието и общественото благополучие и философска рамка за оценка на когнитивните заплахи и влиянието им върху общественото възприятие за реалност – публикации № 4., 5., 7.5., 7.10.

4.2. Научноприложни приноси:

− На основата на теоретичната рамка за технологичното неравенство е разработен аналитичен инструментариум за оценка на степента на технологично изоставане на институционално и секторно ниво, като са идентифицирани ключови уязвимости, произтичащи от неравномерното внедряване на технологии в публичния сектор, отбраната, образованието и здравеопазването и са формулирани конкретни практически мерки – публикация № 3.

− Разработена е практическа рамка за управление на свързаните с ИИ рискове, като са предложени подходи за въвеждане на риск-базиран модел на оценка на ИИ-системите, изисквания за прозрачен дизайн и сертификационни процедури, както и принципи за „смесен контрол“ (човек + машина) в критични военни и управленски системи – публикации с №.7.15., 7.16.

− Представени са стандартизирани модели за управление на сателитна информация в национални системи за реагиране при бедствия, включително функционална архитектура на Национална информационна система с модули за ранно предупреждение, наблюдение в реално време, възстановяване, архив и защита на данните. В разработките за констелации от наносателити са предложени конкретни технически и организационни решения за интегрирането им в националните и европейските политики по сигурност и екологичен мониторинг и имат приложимост при модернизирането на системите за

управление на риска – публикации с № 7.1., 7.2.,7.3., 7.4., 7.6., 7.7., 7.8., 7.9.

− Изведени са зависимостите между социално-икономически характеристики и здравен статус, идентифицирани са уязвими групи на пазара на труда и групи с ограничен достъп до здравни услуги и са предложени мерки за подобряване на координацията между здравни, социални и миграционни институции, както и за интеграция на здравната сигурност в рамките на националните стратегии за сигурност, които могат да служат като емпирична основа за формулиране на по-ефективни и хуманни политики, както и за обучение на специалисти в областта на общественото здраве и сигурността – публикации с № 6.1., 6.2., 6.3., 6.4., 7.11.

− Разработени са методики за интегриране на философски и етически концепции в учебните програми по национална и международна сигурност, включително модули за критическо мислене, логическа аргументация и етични дилеми при използването на технологии – публикации с № 4.,7.5., 7.10.

Използваната номерация е от списък „Резюмета на научните трудове“.

5. Оценка на значимостта на приносите за науката и практиката

Обобщените научни и научно-приложни приноси демонстрират, че гл. ас. д-р Георги Баев притежава научното мислене и изразен интердисциплинарен подход. Допринасят за обогатяване на науката за сигурността като разширяват традиционните рамки на изследване от технологичното неравенство и автономните системи до космическата, екологичната и социалната сигурност. На приложно ниво приносите му показват умение да се превеждат теоретични идеи в практически насоки и конкретни практически приложими решения на актуални проблеми в сферата на сигурността, отбраната, общественото здраве и управлението на кризи.

Главен асистент д-р Георги Баев притежава висока теоретична подготовка, активна научноизследователска, публикационна и педагогическа дейност.

Представените публикации и дейности за участие в настоящия конкурс, показват добро взаимодействие в съавторство и работа в национални и международни интердисциплинарни екипи, като самостоятелните публикации показват и умения за постигане на резултати и на лични приноси от научен и научноприложен характер.

6. Критични бележки за рецензираните трудове

Представените материали дават основания за формулиране на критична бележка, отнасяща се до документите за участие в конкурса, в които се срещаха несъответсвия и неточности и изискваха допълнително уточняване, което не касае значимостта на приносите. Препоръката ми е, при заемане на длъжността, да задълбочи научната работа в областта на националната сигурност и да продължи участието в международни изследователски групи и проекти с привличане на и обучаеми за участие в научноизследователски дейности.

7. Заключение.

Разглеждането на материалите по конкурса за заемане на академична длъжност „доцент“ на единственият кандидат, гл. ас. д-р Георги Баев показва, че са покрити и в количествено, и в качествено отношение изискванията на Закона за развитие на академичния състав на Република България (ЗРАСРБ), Правилника за прилагане на ЗРАСРБ, изискванията на Национален военен университет „Васил Левски“ и писмо от НАЦИД на РБ с рег. № 20-00-433 от 04.07.2025 г.

Гл. ас. д-р Георги Костов Баев отговаря на определените минималните национални изисквания за стойностите на наукометричните показатели, като еквивалент от 516.95 точки, при минимално изискуеми 400 точки, съгласно минималните национални изисквания.

8. Оценка на кандидатите.

В заключение, давам **положителна оценка** на дейността на гл. ас. д-р Георги Баев и гласувам положително за предложение за неговия избор на академична длъжност „доцент“ в област на висшето образование 9. „Сигурност и отбрана“, професионално направление 9.1. „Национална сигурност“, катедра „Национална и регионална сигурност“ при факултет „Сигурност и отбрана“ на НВУ „В. Левски“

25.11.2025 г. **Изготвил становището:**

гр. Велико Търново **проф. д.н. Веселин Петров Мадански**

VASIL LEVSKI NATIONAL MILITARY UNIVERSITY
5000 Veliko Tarnovo, Bulgaria Blvd. No. 76
phone: (062)618 822; fax: (062) 618 899; e-mail : nvu@nvu.bg

OPINION

by

Professor D.Sc. Veselin Petrov Madanski

Department of Language Training and Physical Training

at the National Military University "Vasil Levski"

Address: Veliko Tarnovo, 76 Bulgaria Blvd., PO Box 5000

of the scientific papers submitted in a competition for the academic position of "Associate Professor" in the field of higher education 9. "Security and Defense", professional field 9.1. "National Security" in the Department of "National and Regional Security" at the Faculty of "Security and Defense" of the National Military University "Vasil Levski", announced by order of the head of the National Military University "Vasil Levski" No. RD-02-807/11.08.2025 and promulgated in the State Gazette No. 71/29.08.2025

of the candidate:

Georgi Kostov Baev PhD

Senior Assisant Professor at the Department of National and Regional Security at the Faculty of Security and Defense of the National Military University "Vasil Levski",

Veliko Tarnovo

V. Tarnovo
2025

1. General characteristics of the candidate's research, applied science and pedagogical activities.

The candidate Georgi Baev PhD has submitted a total of 29 scientific papers, with a total volume of 563 pages, 27 of which were published after the acquisition of the ONS "Doctor" and include: 1 monograph - habilitation work, with a volume of 227 pages, 1 book based on a defended dissertation work for the award of the ONS "Doctor" - with a volume of 141 pages and 25 scientific research papers (scientific reports and articles) with a total volume of 176 pages.

The distribution of scientific papers by relevant headings, in the country and abroad, is as follows: 25 scientific publications are in the country, and 2 are abroad. Of the submitted research papers, those published in scientific publications, referenced and indexed in world-renowned databases of scientific information are distributed as follows: in Scopus – 3 pcs. and in Web of Science – 1 pc. The remaining research papers are published in non-refereed journals with scientific review or in edited collective volumes.

I accept for review 27 scientific papers that correspond to the subject area of the announced competition.

I do not accept 2 pcs. scientific papers specified in Appendix No. 5 - Requirements of the National University of Higher Education "Vasil Levski" for occupying the academic position of "associate professor" under Art. 2b, para. 5 of the Law on the Environment and Natural Resources of the Republic of Bulgaria, which were submitted under the procedure for obtaining the ONS "doctor", as follows:

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The candidate has provided 19 citations.

The results of the research, applied science and pedagogical activities of Senior Asst. Prof. Georgi Baev PhD are presented through his publication activity in the country and abroad in the period 2012 - 2025 in the following areas: Security and defense: problems of national and international security, defense strategies and risk management. Special emphasis is placed on environmental security - in particular,

environmental monitoring for the purpose of timely warning of disasters and crises; Space technologies and satellite systems: the use of satellite methods for Earth monitoring and their application in security and the opportunities that small satellites (e.g. CubeSat nanosatellites) provide for monitoring natural disasters, environmental indicators and critical infrastructure, proposing a model for managing satellite information in a national crisis response system, including a network of micro-satellites working in coordination for rapid imaging of the Earth's surface during disasters; Philosophy and ethics: the philosophical foundations of security, the ethics of technology and the methodology of scientific research, as an important basis for critical thinking, moral values and understanding of the world - skills that are also needed in the field of national security; Artificial intelligence and cybersecurity: the impact of new digital technologies, the development of artificial intelligence (AI), the introduction of machine learning, cyber threats and autonomous combat systems and analyzes how technological transformation requires a new look at security - from personal data and cyberspace to national defense.
Patented invention: in a team developing the "Satellite Spectrophotometer for Environmental Monitoring" - an innovative device/system for remote sensing. This invention is the result of joint work with the Institute for Space Research and Technology at the Bulgarian Academy of Sciences and is patented, and in 2017 it won him the "Eureka" award for young inventor. The spectrophotometer is a device for measuring characteristics of the atmosphere and the environment from aboard a satellite, and can be used to improve environmental monitoring and early detection of pollution or climate change. The distinction from the "Eureka" Foundation is a prestigious recognition for young scientific talents in Bulgaria.
The in-depth review of the scientific publications with which the candidate participates in this competition proves their scientific qualities and allows for a high assessment in terms of relevance, originality and skills for scientific research.
The presented scientific production is a reflection of the scientific research work and a certificate of competence and presence of the author at a national and international level.

2. Opinion on the presence or absence of plagiarism.

During my work as a member of the scientific jury, no non-anonymous and motivated written signal has been received for the establishment of plagiarism in the publications of the candidate in the competition. The same has attached a declaration certifying the absence of plagiarism in the scientific works, in accordance with Art. 53, para. 1, item 5 of the Regulations for the Implementation of the Act on the Development of the Academic Staff in the Republic of Bulgaria.

3. Assessment of the candidate's pedagogical training and activity.

He graduated with a bachelor's degree in "Social Activities" at the Veliko Tarnovo University "St. St. Cyril and Methodius" (2005-2009, VTU). He continued his studies with two master's degrees - Master of Philosophy (2016–2018, VTU) and Master of Administrative and Information Security (2010–2012, Vasil Levski National University, Faculty of Artillery, Air Defense and CIS).
In the period 2013–2015, Georgi Baev was a doctoral student at Vasil Levski National University (Faculty of Artillery, Air Defense and CIS), successfully defending a dissertation on the topic "Research of the possibilities of satellite monitoring for environmental security management". With the acquisition of the educational and scientific degree of doctor in the field 9.1. National Security, "Organization and Management Beyond the Sphere of Material Production (Defense and Security)", Dr. Baev established himself as a young scientist with an interdisciplinary profile, combining knowledge in security, management, ecology and technology.
At the National Military University in 2013, he held the position of assistant professor at the Institute for Research and Innovation of the National Military University, (2013–2016). After defense, in 2016 he joined the Department of "National and Regional Security" as a full-time assistant professor, and since 2017 he has held the academic position of "chief assistant professor" in the same department, having lectured in the disciplines: Philosophy; Business Ethics and Deontology; Security and Defense Terminology; Technologies and Security; Academic Writing.
He participates in the "Space Policy" working group at the Ministry of Economy (structure of the Council of Ministers) on issues of space technologies and security. Expert member of the technical committee "Security of society and citizens" at the Bulgarian Institute for Standardization, where he participates in the development of standards related to public security.
Project work, leadership of student groups and participation in forums: since 2015, Senior Assistant Baev PhD is the founder and head of a club for cadets and students, oriented towards space technologies "Space Division". Within this club, more than 50 young officers and students have undergone training and participated in various space-related projects, developing innovative ideas: projects for nanosatellites with sensors for monitoring flood waters, participation in national and international space-related competitions, winning numerous awards, including second place in a prestigious national technological competition in 2019 with an educational model of a cube-satellite to popularize science among children, the international hackathon “CASSINI” (2023) dedicated to space technologies in support of security and defense, the global hackathon ActInSpace (initiated by the French Space Agency and the European Space Agency). In 2020, they are developing a software system for a satellite to detect

disasters and inform the population through emergency wireless signals on mobile phones in the threatened area; the youth festival “Hello, Space! Speak Bulgaria” (2021) in Sofia Tech Park, about the latest achievements in space technologies, artificial intelligence, robotics, nanotechnologies, etc.; the “Innovation Academy” initiative – an annual competition for student entrepreneurship and innovation.
Under his leadership, the teams from the “Space Division” club have won medals and prizes from over 30 national and international competitions and hackathons, including second place in a national competition in 2019 (with a mock-up of a training satellite), honors from a competition of the European Space Agency (2017) against teams from three continents, as well as prizes from forums such as the NASA Space Apps Challenge, etc. Participation in such events supports the connection between the military academic community and the civilian innovation sector.
Dr. Baev's contribution to the popularization of science should also be noted - in 2018, the Bulgarian National Radio featured him in the "Man" section with the title "Being an Inventor - the Story of Georgi Baev", about his path in science and inventions. This publicity further strengthens his image as a young scientist and innovator.
Chief Assistant Georgi Baev PhD stands out as a proactive and dynamic scientist and lecturer, who skillfully combines his interests in the field of national security, high technologies and philosophy. Through his teaching work, scientific research and public initiatives, Baev PhD contributes to the development and popularization of knowledge in the field of security and technology.

4. Main scientific results and contributions

In connection with the scientific papers submitted for participation in the competition, the following scientific and applied scientific contributions have been defined:

4.1. Scientific contributions:

− A conceptually new definition in the Bulgarian scientific literature of the concept of “technological inequality” in the context of national security has been presented, considered not only as an economic, but also as a strategic and philosophical problem – publication No. 3.
− An interdisciplinary model of analysis has been developed, which unites approaches from the philosophy of technology, sociology, security and public administration, within which a typology of risks arising from technological gaps has been built – cyber, social, economic and institutional, and the concept of “technological justice” has been introduced as a basic ethical and strategic principle in security management – publication No. 3.

− A theoretical framework has been formulated for understanding the "duality" of artificial intelligence (AI) and autonomous systems in national security both as a source of new capabilities and as a generator of a new type of risks – publications No. 5., 7.15., 7.16., 7.17., 7.18.
− The technical and operational vulnerabilities of artificial intelligence systems (attacks, data dependence, algorithm opacity) have been analyzed and the types of threats have been classified - cyber, automation, autonomous weapons, cognitive information campaigns, etc., including the interrelationships between them, as well as ethical and legal problems in autonomous weapon systems, the role of humans in management and the need for a "moral architecture" of machines - publications No. 5., 7.15., 7.16., 7.17., 7.18.
− A theoretical framework is presented in which nanosatellites are considered as part of a complex "space ecosystem" with interdependencies between security, technology, economy and environment, and theoretical models have been developed integrating ecological, technical and social parameters into a general framework of ecological security – publications No. 7.1., 7.2.,7.3., 7.4., 7.6., 7.7., 7.8., 7.9.
− Models of dependencies have been formulated that show how demographic, economic and social factors influence the resilience of the population in crises – publications No. 6.1., 6.2., 6.3., 6.4., 7.11.
− By combining philosophy, ethics, psychology and security theory, a theoretical model is presented in which security is viewed as a supreme value, equal to happiness and social well-being, and a philosophical framework for assessing cognitive threats and their impact on the public perception of reality – publications No. 4., 5., 7.5., 7.10.

4.2. Scientific and applied contributions:

− Based on the theoretical framework for technological inequality, an analytical toolkit has been developed to assess the degree of technological lag at the institutional and sectoral level, identifying key vulnerabilities arising from the uneven implementation of technologies in the public sector, defense, education and healthcare, and formulating specific practical measures – publication No. 3.
− A practical framework for managing AI-related risks has been developed, proposing approaches for introducing a risk-based model for assessing AI systems, requirements for transparent design and certification procedures, as well as principles for "mixed control" (human + machine) in critical military and management systems – publications No. 7.15., 7.16.
− Standardized models for managing satellite information in national disaster response systems are presented, including a functional architecture of a National Information System with modules for early warning, real-time monitoring, recovery, archiving and

data protection. In the developments for nanosatellite constellations, specific technical and organizational solutions are proposed for their integration into national and European security and environmental monitoring policies and have applicability in the modernization of risk management systems – publications with No. 7.1., 7.2.,7.3., 7.4., 7.6., 7.7., 7.8., 7.9.

− The relationships between socio-economic characteristics and health status have been deduced, vulnerable groups on the labor market and groups with limited access to health services have been identified, and measures have been proposed to improve coordination between health, social and migration institutions, as well as to integrate health security within national security strategies, which can serve as an empirical basis for formulating more effective and humane policies, as well as for training specialists in the field of public health and security – publications with No. 6.1., 6.2., 6.3., 6.4., 7.11.

− Methodologies for integrating philosophical and ethical concepts into national and international security curricula have been developed, including modules on critical thinking, logical argumentation and ethical dilemmas in the use of technologies – publications with No. 4.,7.5., 7.10.

The numbering used is from the list "Summaries of scientific papers".

5. Assessment of the significance of contributions to science and practice

The summarized scientific and applied scientific contributions demonstrate that Senior Assistant Georgi Baev PhD possesses scientific thinking and a pronounced interdisciplinary approach. They contribute to the enrichment of security science by expanding the traditional framework of research from technological inequality and autonomous systems to space, environmental and social security. At the applied level, his contributions demonstrate the ability to translate theoretical ideas into practical guidelines and specific practically applicable solutions to current problems in the field of security, defense, public health and crisis management.

Senior Assistant Georgi Baev PhD has a high theoretical background, active research, publication and pedagogical activity.

The publications and activities presented for participation in this competition demonstrate good interaction in co-authorship and work in national and international interdisciplinary teams, with the independent publications also demonstrating the skills to achieve results and personal contributions of a scientific and applied nature.

6. Critical notes on the reviewed works

The presented materials provide grounds for formulating a critical note regarding the documents for participation in the competition, which contained inconsistencies and

inaccuracies and required additional clarification, which does not concern the significance of the contributions. My recommendation is, upon taking up the position, to deepen the scientific work in the field of national security and to continue participation in international research groups and projects with the attraction of and trainees to participate in scientific research activities.

7. Conclusion.

The examination of the materials on the competition for the academic position of "associate professor" of the only candidate, Senior Assistant Georgi Baev shows that the requirements of the Act on the Development of the Academic Staff of the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of ZRASRB, the requirements of the National Military University "Vasil Levski" and a letter from the National Center for the Development of the Academic Staff of the Republic of Bulgaria with reg. No. 20-00-433 dated 04.07.2025 are met in both quantitative and qualitative terms.
Senior Assisant Georgi Kostov Baev PhD meets the specified minimum national requirements for the values of the scientometric indicators, as an equivalent of 516.95 points, with a minimum required of 400 points, according to the minimum national requirements.

8. Evaluation of the candidates.

In conclusion, I give a positive assessment of the activities of Senior Assisant Georgi Baev PhD and vote positively for the proposal for his election to the academic position of "associate professor" in the field of higher education 9. "Security and Defense", professional direction 9.1. "National Security", Department of "National and Regional Security" at the Faculty of "Security and Defense" of the National University "V. Levski"

25.11.2025
Veliko Tarnovo

Prepared the opinion:
Prof. D.Sc. Veselin Petrov Madanski

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Dr. Baev's contribution to the popularization of science should also be noted - in 2018, the Bulgarian National Radio featured him in the "Man" section with the title "Being an Inventor - the Story of Georgi Baev", about his path in science and inventions. This publicity further strengthens his image as a young scientist and innovator.

Chief Assistant Georgi Baev PhD stands out as a proactive and dynamic scientist and lecturer, who skillfully combines his interests in the field of national security, high technologies and philosophy. Through his teaching work, scientific research and public initiatives, Baev PhD contributes to the development and popularization of knowledge in the field of security and technology.

4. Main scientific results and contributions

In connection with the scientific papers submitted for participation in the competition, the following scientific and applied scientific contributions have been defined:

4.1. Scientific contributions:

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− An interdisciplinary model of analysis has been developed, which unites approaches from the philosophy of technology, sociology, security and public administration, within which a typology of risks arising from technological gaps has been built – cyber, social, economic and institutional, and the concept of "technological justice" has been introduced as a basic ethical and strategic principle in security management – publication No. 3.
− A theoretical framework has been formulated for understanding the "duality" of artificial intelligence (AI) and autonomous systems in national security both as a source of new capabilities and as a generator of a new type of risks – publications No. 5., 7.15., 7.16., 7.17., 7.18.
− The technical and operational vulnerabilities of artificial intelligence systems (attacks, data dependence, algorithm opacity) have been analyzed and the types of threats have been classified - cyber, automation, autonomous weapons, cognitive information campaigns, etc., including the interrelationships between them, as well as ethical and legal problems in autonomous weapon systems, the role of humans in management and the need for a "moral architecture" of machines - publications No. 5., 7.15., 7.16., 7.17., 7.18.
− A theoretical framework is presented in which nanosatellites are considered as part of a complex "space ecosystem" with interdependencies between security, technology, economy and environment, and theoretical models have been developed integrating ecological, technical and social parameters into a general framework of ecological security – publications No. 7.1., 7.2.,7.3., 7.4., 7.6., 7.7., 7.8., 7.9.
− Models of dependencies have been formulated that show how demographic, economic and social factors influence the resilience of the population in crises – publications No. 6.1., 6.2., 6.3., 6.4., 7.11.

− By combining philosophy, ethics, psychology and security theory, a theoretical model is presented in which security is viewed as a supreme value, equal to happiness and social well-being, and a philosophical framework for assessing cognitive threats and their impact on the public perception of reality – publications No. 4., 5., 7.5., 7.10.

4.2. Scientific and applied contributions:

− Based on the theoretical framework for technological inequality, an analytical toolkit has been developed to assess the degree of technological lag at the institutional and sectoral level, identifying key vulnerabilities arising from the uneven implementation of technologies in the public sector, defense, education and healthcare, and formulating specific practical measures – publication No. 3.
− A practical framework for managing AI-related risks has been developed, proposing approaches for introducing a risk-based model for assessing AI systems, requirements for transparent design and certification procedures, as well as principles for "mixed control" (human + machine) in critical military and management systems – publications No. 7.15., 7.16.
− Standardized models for managing satellite information in national disaster response systems are presented, including a functional architecture of a National Information System with modules for early warning, real-time monitoring, recovery, archiving and data protection. In the developments for nanosatellite constellations, specific technical and organizational solutions are proposed for their integration into national and European security and environmental monitoring policies and have applicability in the modernization of risk management systems – publications with No. 7.1., 7.2.,7.3., 7.4., 7.6., 7.7., 7.8., 7.9.
− The relationships between socio-economic characteristics and health status have been deduced, vulnerable groups on the labor market and groups with limited access to health services have been identified, and measures have been proposed to improve coordination between health, social and migration institutions, as well as to integrate health security within national security strategies, which can serve as an empirical basis for formulating more effective and humane policies, as well as for training specialists in the field of public health and security – publications with No. 6.1., 6.2., 6.3., 6.4., 7.11.
− Methodologies for integrating philosophical and ethical concepts into national and international security curricula have been developed, including modules on

critical thinking, logical argumentation and ethical dilemmas in the use of technologies – publications with No. 4.,7.5., 7.10.
The numbering used is from the list "Summaries of scientific papers".

5. Assessment of the significance of contributions to science and practice

The summarized scientific and applied scientific contributions demonstrate that Senior Assistant Georgi Baev PhD possesses scientific thinking and a pronounced interdisciplinary approach. They contribute to the enrichment of security science by expanding the traditional framework of research from technological inequality and autonomous systems to space, environmental and social security. At the applied level, his contributions demonstrate the ability to translate theoretical ideas into practical guidelines and specific practically applicable solutions to current problems in the field of security, defense, public health and crisis management.
Senior Assistant Georgi Baev PhD has a high theoretical background, active research, publication and pedagogical activity.
The publications and activities presented for participation in this competition demonstrate good interaction in co-authorship and work in national and international interdisciplinary teams, with the independent publications also demonstrating the skills to achieve results and personal contributions of a scientific and applied nature.

6. Critical notes on the reviewed works

The presented materials provide grounds for formulating a critical note regarding the documents for participation in the competition, which contained inconsistencies and inaccuracies and required additional clarification, which does not concern the significance of the contributions. My recommendation is, upon taking up the position, to deepen the scientific work in the field of national security and to continue participation in international research groups and projects with the attraction of and trainees to participate in scientific research activities.

7. Conclusion.

The examination of the materials on the competition for the academic position of "associate professor" of the only candidate, Senior Assistant Georgi Baev shows that the requirements of the Act on the Development of the Academic Staff of the Republic of Bulgaria (ZRASRB), the Regulations for the Implementation of ZRASRB, the requirements of the National Military University "Vasil Levski" and

a letter from the National Center for the Development of the Academic Staff of the Republic of Bulgaria with reg. No. 20-00-433 dated 04.07.2025 are met in both quantitative and qualitative terms.
Senior Assisant Georgi Kostov Baev PhD meets the specified minimum national requirements for the values of the scientometric indicators, as an equivalent of 516.95 points, with a minimum required of 400 points, according to the minimum national requirements.

8. Evaluation of the candidates.

In conclusion, I give a positive assessment of the activities of Senior Assisant Georgi Baev PhD and vote positively for the proposal for his election to the academic position of "associate professor" in the field of higher education 9. "Security and Defense", professional direction 9.1. "National Security", Department of "National and Regional Security" at the Faculty of "Security and Defense" of the National University "V. Levski"

25.11.2025
Veliko Tarnovo

Prepared the opinion:
Prof. D.Sc. Veselin Petrov Madanski