

Реферат за избор проф. др Душана Стипановића у ИНОСТРАНОГ члана АИНС**1. Биографски подаци**

Кандидат проф. др Душан Стипановић рођен је 23. августа 1971. године у Београду. дипломирао је на Електротехничком факултету, одсек за аутоматiku, електронику и телекомуникације, у Београду 1994. године. Након дипломирања наставља студије у САД, на Универзитету Santa Clara у Калифорнији где магистрира 1996. и докторира 2000. године. Докторску дисертацију под насловом “Stability and Stabilization of Nonlinear Discontinuous Systems” под менторством проф. Драгослава Шиљка. Од 2001. до 2004. др Стипановић је у оквиру пост докторског усавршавања био истраживач - сарадник у Лабораторији за хибридне системе професорке Claire Tomlin на Одсеку за аеронаутику и астронаутику на Универзитету Станфорд. Од 2004. прелази на Универзитету Илиној у Urbana – Champaign, где је данас редовни професор при групи за управљање на одсеку за системско инжењерство и операциона истраживања и у групи за контролу Лабораторије за координиране науке. Такође је гостујући професор на универзитетима у Београду и Новом Саду. Др Стипановић је био и гостујући професор на одсеку за електротехнику и рачунарство на Универзитету Калифорнија у Берклију, Hebei University of Technology у Кини, и одсеку за роботiku и трелематику на Универзитету у Вирзбургу у Немачкој.

Биографија је наведена коректно, са свим релевантним подацима јасно и прегледно приказаним. Оцењује се да је кандидат остварио врхунске академске и инжењерске резултате. Вредно је истаћи да је кандидат део истраживачке групе на матичном универзитету, која је дуги низ година рангирана као једна од најбољих из области Аутоматике и управљања на Шангајској листи. Кандидат је завршио и основне и докторске студије из области електротехнике и рачунарства. Даљим увидом у биографију, укључујући ужу област за коју је биран, предмете из којих изводи наставу, наслове докторских дисертација у којима је учествовао као ментор, те увидом у научне и инжењерске резултате, јасно се уочава непосредна наставна, научна и инжењерска припадност Одељењу електротехничких наука Академије инжењерских наука за које конкурише.

2. Научни резултати (члан 5 први став)

Након извршене провере, констатује се да је – као и остатак пријаве кандидата – материјал везан за научне резултате приказан коректно, јасно и прегледно. У свом досадашњем раду, кандидат остварује натпросечну продукцију. До сада је публикувао 64 рада категорије M20, од тога највише из категорије M21 или M21a, 100 радова на међународним конференцијама, 11 поглавља у монографијама и 2 рада у националним часописима. Према сервису СКОПУС кандидат бележи х-индекс 35, радови су му цитирани укупно 5666 пута, од чега је 5208 хетероцитата. Највећи број радова је из области управљања и оптимизације, затим електроенергетике, примењене математике, те вештачке интелигенције. Кандидат нема ни један рад у коме се појављује као једини аутор, али у великом броју радова јесте први аутор. Такође, у великом броју радова у којима није први аутор, први аутор је неко од његових многобројних докторских студената.

Анализирајући продукцију детаљније, видимо да је кандидат остварио резултате у већем броју области, али да се најзначајнијим могу сматрати они из шире области управљања, односно децентрализованог управљања и естимацију, теорију стабилности, оптималног управљања и теорију динамичких игара са применом на управљање аутономних возила.

3. Инжењерске реализације (члан 5 други став)

Након извршене провере, констатује се да је – као и остатак пријаве кандидата – материјал везан за инжењерске реализације приказан коректно. Кандидат је учествовао у реализацији већег броја пројеката, који по свом карактеру припадају примењеним истраживањима и то из области примене беспилотних летелица, медицинске роботике и рехабилитације, као и управљањем DC/DC конвертора и возилима без возача.

Инжењерске реализације кандидата су уско везани за научно-истраживачке пројекте кандидата и представљају природни наставак истраживања из области управљања, машинског учења и вештачке интелигенције. Истраживачки рад кандидата из области управљања беспилотним летелицама у ванредним ситуацијама је поред научне верификације нашао примену у бројним комерцијалним апликацијама, кроз пројекте којима је руководио сам кандидат.

4. Остали показатељи успеха (наставни и други резултати)

Након извршене провере, констатује се да је – као и остатак пријаве кандидата – материјал везан за остале показатеље успеха приказан коректно, јасно и прегледно. Рад кандидата карактерише богата међународна сарадња, кандидат је сарађивао или сарађује поред напоменутих институција и са Royal Institute of Technology (KTH) Stockholm, ETH Zurich, Sapienza University Rome, Politecnico di Milano, Paris VII University, Politecnico di Torino, MIT and Harvard Cambridge, Aalto University Helsinki, Delft University of Technology, Carnegie Mellon University, North Carolina State University, China University of Science and Technology, Hebei University, Wuhan Institute of Technology, и Harbin University of Technology.

Кандидат је био ментор (самостално, или као један од ментора) 14 докторских дисертација, од тога једна на Универзитету у Београду; 16 мастер радова и 2 специјалистичка рада са постдокторским студентима. Објавио је 3 уџбеника и једног помоћног уџбеника српском језику. Изводи и изводио је наставу из већег броја предмета, на матичном факултету, на докторским студијама Електротехничког факултета у Београду и активан је у

истраживањима на Факултету техничких наука у Новом Саду. Руководио је или је био водећи истраживач на 13 научно-истраживачких пројеката. Био је члан програмских одбора шест и организационих одбора два међународна научно-стручна скупа. Уређивао је или је члан уређивачког одбора 6 часописа са импакт фактором.

5. Признања и награде

1. 2006 Excellence in Teaching Award, General Engineering Department, University of Illinois
2. 2008 Alexander von Humboldt Research Fellowship Award, Bonn, Germany.
3. 2009 Xerox Award for Faculty Research, College of Engineering, University of Illinois.
4. 2009 Arnold O. Beckman Research Award, University of Illinois.
5. 2014 Sharp Outstanding Teaching Award, ISE Department, University of Illinois.
6. 2016 Arthur Davis Faculty Scholar Award, University of Illinois.
7. 2017 Friedrich Wilhelm Bessel Research Award, Alexander von Humboldt Foundation, Germany. Area: Mathematics (control theory and calculus of variations).
8. National Thousand Talent Award, China, 2022.
9. IEEE Fellow, 2024.
10. Fellow of Asia-Pacific Artificial Intelligence Association (AAIA), 2024.

Кандидат, проф. др Душан Стипановић, има значајно више резултата од минималних резултата потребних за избор у звање редовног професора односно научног саветника.

МИШЉЕЊЕ И ПРЕДЛОГ КОМИСИЈЕ

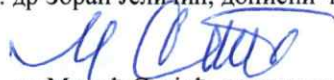
На основу претходно наведеног образложења, вредновања и оцена у овом реферату, као и прегледаног комплетног материјала у поднетој пријави, Комисија констатује да су испуњени сви услови за избор у складу са Статутом и правилником и са задовољством предлаже да се проф. др Душан Стипановић изабере у иностраног члана Академије Инжењерских Наука.

Београд, 4. 9. 2024. год.

Комисија за писање реферата
одређена одлуком Председништва АИНС на седници 2. 7. 2024. године


проф. др Бранко Ковачевић, редовни члан АИНС


проф. др Зоран Јелић, дописни члан АИНС


проф. др Милић Стојић, редовни члан АИНС



Академија инжењерских
наука Србије (АИНС)

Одељење
електротехничких наука

Пријава на конкурс за избор нових иностраних чланова АИНС

Поштовани,

Одељење електротехничких наука АИНС је одржало седницу 10.6.2024. године којој је присуствовало 16 редовних и дописних чланова од 22 члана у Радном саставу тако да је кворум од најмање 50% био задовољен.

На предлог редовног члана проф. др Бранка Ковачевића и дописног члана проф. др Зорана Јеличића, Одељење је одлучило тајним гласањем са 15 гласова за да предложи проф. др Душана Стипановића за новог иностраног члана АИНС.

У Београду 12.6.2024. године

Секретар Одељења електротехничких наука

Проф. др Миодраг Поповић

Академија инжењерских наука Србије
Краљице Марије 16
11000 Београд, Србија

Поштовани,

Изјављујем да сам сагласан са кандидатуром за Академију инжењерских наука Србије, Одељење електротехничких наука.

С Поштовањем

A handwritten signature in black ink, reading "Душан Стипановић". The signature is written in a cursive style with some stylized flourishes.

Др Душан Стипановић, редовни професор

30.05.2024.



Професор Душан Стипановић дипломирао је на Електротехничком факултету, одсек за аутоматику, електронику и телекомуникације, у Београду 1994. године. Након дипломирања наставља студије у САД, на Универзитету *Santa Clara* у Калифорнији где магистрира 1996. и докторира 2000. Године. Од 2001. до 2004. др Стипановић је у оквиру пост докторског усаврашавања био истраживач - сарадник у Лабораторији за хибридне системе професорке *Claire Tomlin* на Одсеку за аеронаутику и астронаутику на Универзитету Станфорд. Од 2004. прелази на Универзитету Илиној у *Urbana – Champaign*, где је данас редовни професор при групи за управљање на одсеку за системско инжењерство и операциона истраживања и у групи за контролу Лабораторије за координиране науке. Такође је гостујући професор на Електротехничком факултету у Београду. Др Стипановић је био и гостујући професор на одсеку за електротехнику и рачунарство на Универзитету Калифорнија у Берклију, Hebei University of Technology у Кини, и одсеку за роботiku и трелематику на Универзитету у Вирзбургу у Немачкој. Научни интереси др Стипановића између

осталог, укључују децентрализовано управљање и естимацију, теорију стабилности, оптимално управљање и теорију динамичких игара са применом на управљање аутономних возила. Др Стипановић је био члан уредничких одбора часописа *IEEE Transactions on Circuits and Systems I и II*, и *Journal of Optimization Theory and Applications*.

Наставну активност врши на свим нивоима студија на University of Illinois Urbana-Champaign. Предаје курсеве из теорије и управљања динамичким системима. На Електротехничком факултету у Београду предаје Анализу сложених система на мастер студијама и Управљање сложених система на докторским студијама

У **научно-истраживачкој делатности** интереси др Стипановића између осталог, укључују децентрализовано управљање и естимацију, теорију стабилности, оптимално управљање и теорију динамичких игара са применом на управљање аутономних возила. Аутор је или коаутор 11 поглавља у књигама, 78 радова у међународним часописима, и 90 радова на међународним конференцијама. Према Google Scholar-у (дана 23. 5. 2024) цитиран је 7952 пута, са h-индексом 43, и i10- индексом 104.

У **инжењерско-стручном раду** водио је пројекте са Boeing Company везане за примену бееспилотних летелица, бави се медицинском роботиком и рехабилитацијом, као и управљањем DC/DC конвертора и кола без возача. Бави се развијањем и применом алгоритама за вештачку интелигенцију и машинско учење.

Домаћа и међународна сарадња: Професор Стипановић је сарађивао или сарађује са Електротехничким факултетом у Београду, Техничким факултетом у Новом Саду, Саобраћајним факултетом у Београду, Royal Institute of Technology (KTH) Stockholm, ETH Zurich, Sapienza University Rome, Politecnico di Milano, Paris VII University, Politecnico di Torino, MIT and Harvard Cambridge, Aalto University Helsinki, Delft University of Technology, Carnegie Mellon University, North Carolina State University, China University of Science and Technology, Hebei University, Wuhan Institute of Technology, и Harbin University of Technology.

У **организационом раду** био је члан више комитета на Универзитету Илиној као што су search, diversity, equity and inclusion, courses and curriculum, qualifying exam revision, и awards. Био је копредседник програмског комитета конференције BIGCOM 2021 conference (<http://staff.ustc.edu.cn/~bigcom2021/>) и на програмском комитету 2010 IEEE Control and Decision Conference.

Награде: Добитник је више награда и признања од којих је вредно поменути *Bessel*-ову награду за математику од стране *Humboldt* фондације и награду 1000 талената Народне Републике Кине. Др Стипановић је *IEEE Fellow* и почасни члан Азија-Пацифичке асоцијације за вештачку интелигенцију (*AAIA*). Рангиран је од *ScholarGPS* на трећем месту у категорији *Collision Avoidance System*, а *Erdős* број му је такође три.

Породица и хоби: Није ожењен и нема децу. Играо је стони тенис за прве екипе СТК “Црвена Звезда” у свим млађим категоријама.

Prof. Dr. Dušan M. Stipanović

Najboljih pet naučnih doprinosa

1. D. M. Stipanović, G. Inalhan, R. Teo, and C. J. Tomlin. Decentralized Overlapping Control of a Formation of Unmanned Aerial Vehicles, *Automatica*, vol. 40, pp. 1285-1296, 2004. Rad je citiran 369 puta. Prvi put razvijena i primenjena robusna strukturna kontrola na modele bespilotnih letelica.
<https://www.sciencedirect.com/science/article/pii/S0005109804000718>
2. S. Mastellone, D. M. Stipanović, C. Graunke, K. Intlekofer, and M. W. Spong. Formation Control and Collision Avoidance for Multi-Agent Nonholonomic Systems: Theory and Experiments, *International Journal of Robotics Research*, vol. 13, pp. 107-126, 2008. Rad je citiran 324 puta. Prvi put je primenjena kontrola zagarantovano izbegavanje sudara u eksplicitnoj formi na modele unicycle robota.
<https://journals.sagepub.com/doi/10.1177/0278364907084441>
3. I. I. Hussein and D. M. Stipanović. Effective Coverage Control for Mobile Sensor Networks with Guaranteed Collision Avoidance, *IEEE Transactions on Control Systems Technology*, vol. 15, pp. 642-657, 2007. Rad je citiran 252 puta. Prvi put su formulisane kontrole za dinamičke mobilne senzore u eksplicitnoj formi.
<https://ieeexplore.ieee.org/document/4252099>
4. D. M. Stipanović, P. F. Hokayem, M. W. Spong, and D. D. Šiljak. Cooperative Avoidance Control for Multi-Agent Systems, *ASME Journal of Dynamic Systems, Measurement, and Control*, vol. 129, pp. 699-707, 2007. Rad je citiran 155 puta. Prvi put su razvijene i primenjene eksplicitne funkcije i kontrole za garantovano izbegavanje sudara. <https://doi.org/10.1115/1.2764510>
5. G. Inalhan, D. M. Stipanović, and C. J. Tomlin. Decentralized Optimization, with Application to Multiple Aircraft Coordination, *Proceedings of the 2002 IEEE Conference on Decision and Control*, Las Vegas, Nevada, December 10-13 (2002), pp. 1147-1155. Rad je citiran 206 puta. Prvi put je primenjena decentralizovana optimizacija za koordinaciju autonomnih vozila.
<https://ieeexplore.ieee.org/document/1184667>

Najboljih pet inženjerskih doprinosa

1. D. M. Stipanović and M. W. Spong, Trustworthy collision avoidance over information links. Investitor: The Boeing Company. Nosilac posla: University of Illinois Urbana-Champaign (UIUC). 2005-2020. Praktična implementacija i validacija kontrole na bespilotnim letelicama tipa helicopter i kvadrotor. <https://iti.illinois.edu/>
2. D. M. Stipanović and P. Pagilla, Safe coordination of multiple autonomous vehicles. . Investitor: National Science Foundation. Nosilac posla: UIUC. 2008-2011. Izgradnja eksperimentalnog testbed-a sa robotskim vozilima i uspešna primena kontrole za izbegavanje sudara i istraživanje nepoznatih oblasti. <https://iti.illinois.edu/>
3. D. M. Stipanović and P. Voulgaris. Smart systems for field monitoring and surveillance. Investitor: Qatar National Research Fund. Nosilac posla: UIUC. 2011-2014. Primena kontrole za bespilotne letelice koje proveravaju stanje aparature za vadenje nafte. <https://www.qf.org.qa/research/qatar-national-research-fund>
4. A. E. Abbas, D. M. Stipanović, and A. Zatezalo. Efficient Surveillance, Rescue, and Threat Detection using Decision Theory and Multi-Objective Control for Multi-Vehicle Systems. Investitor: Department of Homeland Security. Nosilac posla: UIUC. 2015-2016. Razvoj upravljanja kretanja i donošenja odluka patrolnih čamaca u lukama. <https://create.usc.edu/>
5. D. M. Stipanović, B. Murmann, C. J. Tomlin, and B. Poling. Multi-Vehicle Systems for Collecting Shadow-Free Imagery in Precision Agriculture Investitor: USDA-NIFA Nosilac posla: UIUC. 2019-2022. Razvijena i primenjena kontrola za bespilotne letelice sa primenom u poljoprivredi. <https://www.nifa.usda.gov/>

РЕЗИМЕ РЕЗУЛТАТА КАНДИДАТА

Име и презиме, датум и место рођења, завршен факултет, место и датум
Dušan Stipanović, 23.08.1971., Elektotehnički Fakultet, Beograd, 31.10.1994

Тема Докторског рада, ментор, датум одбране докторске тезе и факултет
Stability and Stabilization of Nonlinear Discontinuous Systems, Prof. Dragoslav Šiljak, Mart 2000, Santa Clara University

Запослење: најдуже, садашње; (за пензионере и датум пензионисања), институција и врста посла
2004-2024, Professor, University of Illinois Urbana-Champaign

Област научног и инжењерског рада и ORCID идентификатор
Control and Dynamical Systems, 0000-0002-2826-5241

Редовни професор 2017 Научни саветник _____ Дописни члан АИНС од _____ године.

1. Научно-истраживачки резултати (ПРИЛОЗИ 2 и 3 ПРАВИЛНИКА МИНИСТАРСТВА)

Они који конкуришу за редовне чланове уписују број до избора у дописног + број након избора (пример: 24+6)

M10	МОНОГРАФИЈЕ И МОНОГРАФСKE СТУДИЈЕ	ТИП	M11	M12	M13	M14			
		БРОЈ				11			
M20	РАДОВИ МЕЂУНАРОДНОГ ЗНАЧАЈА	ТИП	M21a	M21	M22	M23	M24	M28	M29
		БРОЈ	31	16	13	4			3
M30	МЕЂУНАРОДНИ СКУПОВИ	ТИП	M31	M32	M33	M34	M35	M36	
		БРОЈ			90	10			
M40	НАЦИОНАЛНЕ МОНОГРАФИЈЕ	ТИП	M41	M42	M44	M45	M48	M49	
		БРОЈ							
M50	ЧАСОПИСИ НАЦИОНАЛНИ	ТИП	M51	M52	M53	M54	M55		
		БРОЈ		2					
M60	НАЦИОНАЛНИ СКУПОВИ	ТИП	M61	M62	M63	M64	M66		
		БРОЈ			1				
M80	ТЕХНИЧКА РЕШЕЊА	ТИП	M81	M82	M83	M84	M85	M86	M87
		БРОЈ							
M90	ПАТЕНТИ	ТИП	M91	M92	M93	M94	M95	M96	M97
		БРОЈ							
M100	ИЗВЕДЕНА ДЕЛА, НАГРАДЕ, СТУДИЈЕ, ИЗЛОЖБЕ	ТИП	M101	M102	M103	M104	M105	M106	M107
		БРОЈ							
		ТИП	M109	M110	M111	M112			
		БРОЈ							

2. Цитираност (одређује се према SCOPUS-у)

2.1 Број цитираних радова на SCOPUS-у 168

2.2 Укупан број цитата 5666

2.3 Број хетероцитата 5208

2.4 Цитираност у књигама 200, дисертацијама >10 и значајним иностраним публикацијама >100

2.5 Хиршов индекс (h-фактор) према броју хетероцитата 35

3. Документоване инжењерске реализације (техничко-технолошки пројекти примењени у пракси) (потребе привреде подразумевају и инфраструктурне и јавне објекте)

Р.Б.	Активност	Главни	Извођачки	Технички	Остали
1.	Урађени значајни пројекти за потребе привреде	2			
2.	У потпуности изведени већи пројекти за потребе привреде (број пројеката је део од пројеката под 1.)	2			
3.	Број ревизија (рецензија) привредних пројеката		Број експертских оцена		2
4.	Руковођење: Изградњом привредних објеката		Радом привредних објеката		
5.	Остало: (нпр. Извођење других пројеката, и др.)				

4. Остали показатељи успеха

1.	Награде међународне	2	4.	Рецензије WoS-SCI-IF радова	>100
2.	Награде домаће		5.	Рецензије међународних пројеката	>10
3.	Уређивачки одбори часописа	3	6.	Чланство у научним и стр. удруж.	3

5. Доприноси развоју услова научно-истраживачког рада

- 5.1 Формирање: 1. Лабораторије 1 2. Истраживачке групе 1
3. Нови истраживачки правци ____ 4. Центри изврности ____
- 5.2 Менторство: Др 14
- 5.3 Педагошки рад: 1. Број уџбеника ____ 2. Збирка задатака ____
3. Број курсева: ____ 4. Основне студије 3 5. Мастер студије 2 6. Др студије 3
- 5.4 Међународна сарадња: 1. Руковођење пројектима 12 2. Учешће на пројектима 1
3. Студијски боравак у иностранству дужи од 2 месеца ____
- 5.5 Одржавање научних скупова: 1. Председник програмског 1 3. Секретар програмског ____ 5. Члан програмског 1
2. /организационог одбора ____ 4. /организационог одбора ____ 6. /организационог одбора ____

6. Организација научног рада

- 6.1 Руковођење: Домаћим пројектима ____
- 6.2 Руковођење у Министарству науке: 1. Министар ____ 2. Држ.сек. ____ 3. Помоћник ____ 4. Предс.МНО ____
- 6.3 Руковођење у Инжењерској комори: 1. Председник ____ 2. Предс.Скупштине ____ 3. Предс.Комисије ____
- 6.4 Активности у Министарству науке: 1. Матични одбори ____ 2. Вођење комисија ____
- 6.5 Руковођење научним институцијама: 1. Универзитети ____ 2. Факултети ____
3. Институти ____ 4. Лабораторије 1
5. Катедре ____ 6. Одсеци, смерови 1
- 6.6 Руковођење и активности у другим друштвима: 1. Научним ____ 2. Стручним ____

Датум

23.06.2024

Потпис кандидата





Professor Dr. Dušan Stipanović received his B.S. degree in electrical engineering from the University of Belgrade, Belgrade, Serbia, in 1994, and the M.S.E.E. and Ph.D. degrees in electrical engineering from Santa Clara University, Santa Clara, California, in 1996 and 2000, respectively. Before that he had attended Mathematical Gymnasium. Dr. Stipanović had been an Adjunct Lecturer and Research Associate with the Department of Electrical Engineering at Santa Clara University (1998-2001), and a Research Associate in Professor Claire Tomlin's Hybrid Systems Laboratory of the Department of Aeronautics and Astronautics at Stanford University (2001-2004). In 2004 he joined the University of Illinois at Urbana-Champaign where he is now Professor in the Controls Group of the Coordinated Science Laboratory and Department of Industrial and Enterprise Systems Engineering. He is a visiting Professor in the School of Electrical Engineering of the University of Belgrade in Serbia, and in the Robotics and Telematics Department at the University of Würzburg in Germany. He also held visiting faculty positions in the EECS Department at the University of California at Berkeley. Dr. Stipanović served as an Associate Editor on the

Editorial Boards of the IEEE Transactions on Circuits and Systems I and II, and Journal of Optimization Theory and Applications.

Teaching activities of Dr. Stipanović include teaching courses at both undergraduate and graduate levels at the University of Illinois Urbana-Champaign. He is teaching courses in control theory, robotics, and nonlinear systems. He is also teaching two courses at the School of Electrical Engineering in Belgrade. One is an MS course titled "Analysis of Complex Systems" and the other is a Ph.D. course titled "Control of Complex Systems". He created and organized both courses.

Scientific and research interests and activities of Dr. Stipanović include decentralized control and estimation, stability theory, optimal control, and differential games, with applications in control of autonomous vehicles, machine learning, precision agriculture, circuits, and telerehabilitation. He authored or co-authored eleven book chapters, 78 articles in international journals and 90 in international conference proceedings. According to the Google Scholar (on 23.5.2024) his publications have citations number of 7952, with h-index 43, and i10-index 104.

Dr. Stipanović's **engineering and professional activities** include leading projects with the Boeing Company related to safe control and coordination of autonomous and semi-autonomous (that is, teleoperated vehicles). He has also participated in various leading roles on projects related to medical robotics and teleoperation, control of circuits, and driverless cars. He has also been actively involved with development of machine learning algorithms with performance guarantees.

Domestic and international Collaboration: Professor Stipanović collaborated with School of Electrical Engineering in Belgrade, School of Technical Engineering in Novi Sad, School of Traffic and Transportation Engineering in Belgrade, Royal Institute of Technology (KTH) Stockholm, ETH Zurich, Sapienza University Rome, Politecnico di Milano, Paris VII University, Politecnico di Torino, MIT and Harvard Cambridge, Aalto University Helsinki, Delft University of Technology, Carnegie Mellon University, North Carolina State University, China University of Science and Technology, Hebei University, Wuhan Institute of Technology, and Harbin University of Technology.

Organization and committee activities of Dr. Stipanović include serving on and chairing various University of Illinois Urbana-Champaign University committees, such as search, diversity, equity and inclusion, courses and curriculum, qualifying exam revision, and awards. He was a program committee co-chair of BIGCOM 2021 conference (<http://staff.ustc.edu.cn/~bigcom2021/>) and served on the program committee of the 2010 IEEE Control and Decision Conference.

Awards: Dr. Stipanović is a recipient of a number of awards, where the most prestigious ones are the Bessel Award in Mathematics (calculus of variations and control theory) from the Humboldt Foundation and 1000 Talents Award from the People's Republic of China. Dr. Stipanović is an IEEE Fellow and a Fellow of Asia-Pacific Artificial Intelligence Association (AAIA). Dr. Stipanović is ranked by ScholarGPS at #3 on the lifetime Collision Avoidance System list, and his Erdős number is 3.

Family and non-professional activities: Not married and does not have children. Dr. Stipanović played table tennis on the first team for the "Red Star" table tennis team in all youth categories. Dr. Stipanović was a table tennis University of Illinois Urbana-Champaign official team coach in 2009.

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Knjige:

Nonlinear Systems - Recent Developments and Advances, Intech Open, 2023, B. Yang and D. Stipanović (Editors).

Poglavlja u knjigama:

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- C76. D. M. Stipanović, B. Murmann, M. Causo, A. Lekić, V. R. Royo, C. J. Tomlin, E. Beigne, S. Thuries, M. Zarudniev and S. Lesecq, "Some local stability properties of an autonomous long short-term memory neural network model," in *Proceedings of the 2018 IEEE International Symposium on Circuits and Systems*, Florence, Italy, 2018.
- C77. M. Amrouche, S. A. Deka, A. Lekić, V. R. Royo, D. M. Stipanović, B. Murmann and C. J. Tomlin, Long Short-Term Memory Neural Network Equilibria Computation and Analysis, in Workshop on Modeling and decision-making in the spatiotemporal domain, 32nd Conference on Neural Information Processing Systems (NIPS), Montreal, Canada, 2018.
- C78. T. Marinho, M. Amrouche, V. Cichella, D. M. Stipanović and N. Hovakimyan, Guaranteed collision avoidance based on line-of-sight angle and time to collision, in *Proceedings of the 2018 American Control Conference*, 2018.
- C79. S. A. Deka, D. M. Stipanović, B. Murmann and C. J. Tomlin, Long-Short Term Memory Neural Network Stability and Stabilization using Linear Matrix Inequalities, in *Proceedings of the 2019 IEEE International Symposium on Circuits and Systems*, Sapporo, Japan, 2019.
- C80. I. Vasiljević, A. Lekić and D. M. Stipanović. Lyapunov Analysis of the Chaotic Colpitts Oscillator, in *Proceedings of the 2019 IEEE International Symposium on Circuits and Systems*, Sapporo, Japan, 2019.
- C81. A. Lekić, A. E. Aroudi and D. M. Stipanović. Polytopic Control of a PV-Fed SEPIC DC-DC Converter, in *Proceedings of the 2019 IEEE International Symposium on Circuits and Systems*, Sapporo, Japan, 2019.
- C82. M. Amrouche, T. Marinho, and D. M. Stipanović. Vision Based Collision Avoidance for Multi-Agent Systems Using Avoidance Functions, in *Proceedings of the 2020 European Control Conference*, Saint Petersburg, Russia, May 2020.
- C83. A. Lekić-Vervoort, M. Majstorović, L. Ristić, and D. M. Stipanović. Hysteresis Control of the Pseudo Boost PFC Converter, in *Proceedings of 29th IEEE International Symposium on Industrial Electronics*, Delft, The Netherlands, June 2020.
- C84. W. Zhang, D. M. Stipanović, and D. Zhou. Cooperative Avoidance Control with Relative Velocity Information and Collision Sector Functions for Car-Like Robots, in *Proceedings of the 2020 American Control Conference*, Denver, Colorado, July 2020.
- C85. Y. Li, N. M. Freris, P. Voulgaris, and D. M. Stipanović. D-SOP: Distributed Second Order Proximal Method for Convex Composite Optimization, in *Proceedings of the 2020 American Control Conference*, Denver, Colorado, July 2020.
- C86. S. A. Deka, D. M. Stipanović and C. J. Tomlin. Feedback-Control Based Adversarial Attacks on Recurrent Neural Networks, in *Proceedings of the 2020 IEEE Conference on Decision and*

- Control*, Jeju, Korea (South), 2020, pp. 4677-4682, doi: 10.1109/CDC42340.2020.9303949. Also available online: <https://arxiv.org/abs/2009.02874>.
- C87. T. Marinho, M. Amrouche, D. M. Stipanović, V. Cichella, and N. Hovakimyan. Biologically Inspired Collision Avoidance Without Distance Information, in *Proceedings of the 2021 American Control Conference*, New Orleans, Louisiana, May 2021. Also available online: <https://arxiv.org/abs/2103.12239>.
- C88. Y. Li, Y. Gong, N. Freris, P. Voulgaris, and D. Stipanović, “Distributed BFGS-ADMM for Large-Scale Multi-agent Optimization,” in *Proceeding of the 2021 IEEE Conference on Decision and Control*, December 2021.
- C89. Y. Li, N. Freris, P. Voulgaris, and D. Stipanović, “DN-ADMM: Distributed Newton ADMM for Multi-agent Optimization,” in *Proceeding of the 2021 IEEE Conference on Decision and Control*, December 2021.
- C90. T. Mamalis, D. M. Stipanović, P. Voulgaris, “Stochastic Learning Rate Optimization in the Stochastic Approximation and Online Learning Settings,” in *Proceedings of the 2022 American Control Conference*, June 2022.

Domaći naučni skupovi:

- CD1. A. Lekić and D. M. Stipanović. Stable switching control of DC-DC converters. Proceedings of the 2017 Telecommunication Forum (TELFOR), November 21-22, pp. 1-7.

Apstrakti:

- A1. Sriram, D. M. Stipanović, and C. J. Tomlin. Collision Avoidance Strategies for a Three Player Game, in the *Book of Abstracts of the 13th International Symposium on Dynamic Games and Applications*, Wroclaw, Poland, June 30-July 3 (2008), pp. 195-197.
- A2. D. M. Stipanović, A. Melikyan, and N. Hovakimyan. Guaranteed Strategies for Nonholonomic Players in Pursuit-Evasion Games, in the *Book of Abstracts of the 13th International Symposium on Dynamic Games and Applications*, Wroclaw, Poland, June 30-July 3 (2008), pp. 209-210.
- A3. D. M. Stipanović, A. Melikyan, and N. Hovakimyan. Differential Inequalities for Dynamic Games, in the *Book of Abstracts of the Second International Conference on Game Theory and Management*, St. Petersburg, Russia, June 26-27 (2008), pp. 205-207.
- A4. D. M. Stipanović, A. Melikyan, and N. Hovakimyan. Nonlinear Pursuit Evasion Games with Incomplete Information, in the *Book of Abstracts of the L. S. Pontryagin Centennial Anniversary Conference*, Moscow, Russia, June 17-22 (2008), pp. 297-298.
- A5. D. M. Stipanović. Control of Complex Dynamic Systems with Multiple Objectives, in the *Book of Abstracts of the International Conference on Control of Dynamic Systems*, Moscow, Russia, January 26-30 (2009), pp. 104.
- A6. D. M. Stipanović, E. Cristiani, and M. Falcone. Designing Strategies for Non-Zero Sum Differential Games using Differential Inequalities, in the *Book of Abstracts of the Fourth International Conference on Game Theory and Management*, St. Petersburg, Russia, June 28-30 (2010).
- A7. W. Street, C. Burns, F. Wang, and D. Stipanović. Visual Search and Spatial Learning in Teleoperation, *Journal of Vision* August 13, 2012 vol. 12 no. 9 article 201.
- A8. D. M. Stipanović, C. J. Tomlin, and G. Leitmann. Design of Multi-Objective Control Strategies, in the *Book of Abstracts of the Eighth International Conference on Game Theory and Management*, St. Petersburg, Russia, June 25-27 (2014).
- A9. D. M. Stipanović and I. Shevchenko. A Design of Strategies in Pursuit-Evasion Games Based on Switching Goal Functions, in the *Book of Abstracts of the Ninth International Conference on Game Theory and Management*, St. Petersburg, Russia, July 8-10 (2015).
- A10. I. Shevchenko and D. M. Stipanović. Smooth Approximations for Minimum and Maximum Functions and Their Use in the Strategy Design, in the *Book of Abstracts of the Tenth*

International Conference on Game Theory and Management, St. Petersburg, Russia, July 7-9 (2016).

Oblasti naučnog interesovanja:

Stability and stabilization of dynamic systems, and differential games

- applications in medical robotics
- applications in machine learning
- applications in guaranteed collision-free monitoring and surveillance
- applications in control of electronic circuits

Robust control and decision analysis

- applications in control of systems with multiple objectives
- applications in improving human-robot interactions

Decentralized control and estimation

- applications in control and coordination of multiple vehicles
- applications in networks of sensors and actuators, and power systems

Obrazovanje:

University of Belgrade
Santa Clara University
Santa Clara University
Stanford University

Electrical Engineering
Electrical Engineering
Electrical Engineering
Control Systems

Diplomirani inženjer, Oktobar 1994
M.S.E.E., Juni 1996
Ph.D., Mart 2000
Specijalizacija, 2001-2004

Profesionalna zaposlenja:

2017-present

Professor

Department of Industrial and Enterprise Systems Engineering, Coordinated Science Laboratory and Information Trust Institute, University of Illinois at Urbana-Champaign, Illinois, USA.

2010-2017

Associate Professor

Department of Industrial and Enterprise Systems Engineering, Coordinated Science Laboratory and Information Trust Institute, University of Illinois at Urbana-Champaign, Illinois, USA.

2004-2010

Assistant Professor

Department of Industrial and Enterprise Systems Engineering and the Coordinated Science Laboratory, University of Illinois at Urbana-Champaign, Illinois, USA.

2001-2004

Research Associate

Hybrid Systems Laboratory, Department of Aeronautics and Astronautics, Stanford University, California, USA.

1998-2001

Adjunct Lecturer and Research Associate

Department of Electrical Engineering, Santa Clara University, California, USA.

Gostujuće pozicije:

2005-present

Visiting Professor

Department of Robotics and Telematics, Faculty of Mathematics and Computer Science, Julius Maximilian University, Würzburg, Germany

2012-present

Visiting Professor

School of Electrical Engineering, University of Belgrade, Belgrade, Serbia

2019-present

Visiting Professor

2010-present	School of Engineering, University of Novi Sad, Serbia Member of the Scientific Advisory Board Adaptive Robotics Center, Würzburg, Germany
2017-2018	Visiting Scholar <i>Electrical Engineering and Computer Science Department, University of California at Berkeley, California, USA.</i>
2010-2011	Visiting Associate Professor <i>Electrical Engineering and Computer Sciences Department, University of California at Berkeley, California, USA.</i>

Profesionalne aktivnosti:

- Associate Editor, *Journal of Optimization Theory and Applications* (2014-2022).
- Technical Program Co-Chair for the BIGCOM 2021 conference (<http://staff.ustc.edu.cn/~bigcom2021/>).
- Associate Editor, *IEEE Transactions on Circuits and Systems I: Fundamental Theory* (2008-2010).
- Associate Editor and a Member of the Program Committee for the 2010 IEEE Control and Decision Conference.
- Associate Editor, *IEEE Transactions on Circuits and Systems II* (2006-2008).
- Associate Editor serving on the IEEE Control Systems Society Conference Editorial Board (2005-2006).

Nagrade:

- 2006 Excellence in Teaching Award, General Engineering Department, University of Illinois.
- 2008 Alexander von Humboldt Research Fellowship Award, Bonn, Germany.
- 2009 Xerox Award for Faculty Research, College of Engineering, University of Illinois.
- 2009 Arnold O. Beckman Research Award, University of Illinois.
- 2014 Sharp Outstanding Teaching Award, ISE Department, University of Illinois.
- 2016 Arthur Davis Faculty Scholar Award, University of Illinois.
- 2017 Friedrich Wilhelm Bessel Research Award, Alexander von Humboldt Foundation, Germany. Area: Mathematics (control theory and calculus of variations).
- National Thousand Talent Award, China, 2022
- IEEE Fellow, 2024
- Fellow of Asia-Pacific Artificial Intelligence Association (AAIA), 2024

Odabrana predavanja po pozivu:

- *Technical Guarantees for Controlling Dynamical Systems with Illustrations of Their Importance in Applications*, PowerWeb Lecture. November 2022, Delft University of Technology (TU Delft), Delft, Netherlands.

- *Control and Applications of Dynamic Systems with Multiple Objectives*, University of Novi Sad, Novi Sad, Serbia, May 2022.
- *Avoidance Control for Multi-Robot Systems*, Polish Chapter of IEEE Robotics & Automation Society, November 26, 2021.
- *Control and Applications of Dynamic Systems with Multiple Objectives*, Uwe Helmke seminar series, Würzburg, Germany, June 2021.
- *Control and Applications of Dynamic Systems with Multiple Objectives*, University of Novi Sad, Novi Sad, Serbia, June 2021.
- *Control of Multiple Dynamical Systems with Multiple Objectives*, NIO Company, San Jose, California, July 10, 2019.
- *Control of Dynamic Systems with Multiple Objectives*, Industrial and Systems Engineering Department, University of Southern California, February 2017.
- *Control of Dynamic Systems with Multiple Objectives*, School of Computer Science and Mathematics, Bavarian Julius Maximilian University in Wuerzburg, Germany, June 2016.
- *Control of Dynamic Systems with Multiple Objectives*, Information-Oriented Control Department, Technical University of Munich, Munich, Germany, June 2016.
- *Control of Multiple Dynamic Systems with Multiple Objectives*, ISL colloquium talk at Stanford, April 28, 2016.
- *Control of Multi-Agent Systems with Multiple Objectives*, Robotics Seminar, CSL, UIUC, April 2016.
- *Controlling Multiple Agents with Multiple Objectives*, invited talk, IcETRAN conference, Silver Lake, Serbia, June 2015.
- *Controlling Multiple Agents in Their Pursuit of Multiple Objectives*, Instituto de Investigación en Ingeniería de Aragón (I3A), University of Zaragoza, Zaragoza, Spain, May 2015.
- *Controlling Dynamic Systems with Multiple Objectives: Some Particular Problems*, Scientific Systems Company, Boston, October 2013.
- *Control of Multi-Vehicle Systems*, Department of Aerospace and Mechanical Engineering, University of Southern California, April 2013.
- *Controlling Dynamic Systems with Multiple Objectives*, Applied Mathematics Department, ENSTA Paris Tech, Paris, France, December 2012.
- *Control of Multiple Agent Systems: Issues and Accomplishments*, Department of Control and Systems Engineering, Poznan University of Technology, Poznan, Poland, June 2012.
- *Control of Dynamic Systems with Multiple Objectives*, Department of Mathematics, University of Rome “Sapienza,” Rome, Italy, December 2011.
- *Control and Coordination of Multiple Agent Systems*, 5th Semiannual Workshop on Control Systems, Plenary Talk, Faculty of Engineering and Computer Science, Concordia University, Montreal, Canada, October 2011.
- *Control and Coordination of Multi-Agent Systems*, College of Engineering, University of Texas at Dallas, October 2011.
- *Accomplishing Multiple Objectives with Multiple Agents*, Plenary Talk, 2011 IEEE RoMoCo Conference, June 2011, Bukowy Dworek, Wasowo, Poland.
- *Controlling Dynamic Systems with Multiple Objectives*, Dynamic Systems and Control Group Seminar, UC San Diego, March 2011.
- *An Approach to Control Dynamic Systems with Multiple Objectives*, Department of Aerospace and Mechanical Engineering, University of Southern California, March 2011.
- *Safe Control and Coordination of Multi-Vehicle Systems*, Boeing-ITI seminar series, Boeing Company, Seattle, October 2009.

- *Control of Complex Dynamic Systems with Multiple Objectives*, Department of Mechanical Engineering, Columbia University, New York, October 2009.
- *Safe Control of Multiple Vehicle Systems*, Institute of Control and Systems Engineering, Poznan University of Technology, Poznan, Poland, August 2009.
- *Guaranteed Strategies for the Nonlinear Multi-Player Pursuit-Evasion Games and Differential Inequalities*, Department of Mathematics, University of Rome “Sapienza,” Rome, Italy, July 2009.
- *Sufficient Conditions for Multi-Player Dynamic Games and Beyond*, Graduate School of Management, St. Petersburg State University, St. Petersburg, Russia, July 2009.
- *Control of Complex Dynamic Systems with Multiple Objectives*, Institute for Problems in Mechanics, Russian Academy of Sciences, Moscow, Russia, January 2009.
- *Dealing with Complexity*, Center for Mathematics and Statistics and the Department of Applied Computer Science, Technical University, Novi Sad, Serbia, December 2008.
- *Row Stochastic Matrices and Consistent Parameter and State Estimation*, Hamilton Institute, National University of Ireland, Maynooth, Ireland, August 2008.
- *Control of Multi-Agent Systems: Theory and Applications*, Institute for Problems in Mechanics, Russian Academy of Sciences, Moscow, Russia, October 2007.
- *Control of Multi-Vehicle Systems*, University of Belgrade, Belgrade, Serbia, June 2007.
- *Safety, Strategies and Applications for Multi-Agent Systems*, University of Bologna, Bologna, Italy, June 2007.
- *Safe and Reliable Control of Multi-Vehicle Systems*, Topics in Systems Seminar Series, UIUC, April 2007.
- *Control and Optimization of Multi-Agent Systems*, the Boeing Company, Seattle, February 2007.
- *Some New Results in Reliable Control of Multi-Agent Systems*, Bavarian Julius Maximilian University in Wuerzburg, Germany, December 2006.
- *Control and Optimization of Multi-Agent Systems*, AAE Colloquium, School of Aeronautics and Astronautics, Purdue University, April 2006.
- *Control and Optimization of Multiple Unmanned Vehicle Systems*, Bavarian Julius Maximilian University in Wuerzburg, Germany, December 2005.
- *Control and Optimization of Multiple Unmanned Vehicle Systems*, the Boeing Company, Seattle, December 2005.
- *Decentralized Control and Optimization of Multi Agent Systems*, Department of Aerospace and Ocean Engineering, Virginia Polytechnic Institute, Blacksburg, November 2005.
- *Control and Optimization of Complex Systems*, Nonlinear Dynamics and Complex Systems Seminar, Department of Physics, University of Illinois at Urbana-Champaign, March 2005.
- *Multi-Player Games: An Overview, General Strategies, and Avoidance Conditions*, Bavarian Julius Maximilian University in Wuerzburg and University of Applied Sciences FH Ravensburg-Weingarten, Germany, December 2004.
- *Decentralized Optimization using Block Iterative Schemes: Convergence via M-Matrices*, Hamilton Institute, National University of Ireland, Maynooth, Ireland, July 2004.
- *Decentralized Control of Large-scale Dynamic Systems: Theory and Applications*, University of Applied Sciences FH Ravensburg-Weingarten, Germany, December 2003.
- *Decentralized Control and Optimization of Large-scale Dynamic Systems*, Bavarian Julius Maximilian University, Wuerzburg, Germany, December 2003.
- *Decentralized Overlapping Control and Optimization of Complex Systems*, University of Hawaii at Manoa, Hawaii, November 2003.
- *Decentralized Overlapping Control and Optimization of Complex Systems*, Hamilton Institute, National University of Ireland, Maynooth, Ireland, September 2003.

- *Overlapping Decentralized Approach to Control and Optimization of Complex Systems*, Center for Control Engineering and Computation Seminar, UC Santa Barbara, January 2003.
- *Overlapping Decentralized Approach in Control, Optimization, and Computation of Reachable Sets*, Dynamic Systems and Control Group Seminar, UC San Diego, January 2003.
- *Overlapping Decentralized Optimization Methods for Multiple Vehicle Coordination and Control*, Robert Bosch Corporation, June 2002.
- *Connective Stability of Discontinuous Interconnected Systems via Parameter-Dependent Liapunov Functions*, Hybrid Systems Seminar, UC Berkeley, Spring 2000.

Specijalizanti, doktoranti, master studenti, i gostujući studenti i naučnici:

Specijalizanti:

- Islam I. Hussein (Ph.D., 2006, University of Michigan) 2006-2007
- Dimitra Panagou (Ph.D., 2012, National Technical University of Athens) 2012-2014

Doktoranti sa godinom završetka:

- Peter Hokayem (ECE) (co-adviser) 2007
- Silvia Mastellone (IESE) (co-adviser) 2008
- Juan Mejía (ISE) 2009
- Miloš S. Stanković (ISE) 2009
- Chad Burns (MechSE) 2011
- Erick Rodríguez-Seda (ECE) (co-adviser) 2011
- Kunal Srivastava (ISE) (co-adviser) 2011
- Christopher Valicka (ISE) 2013
- Gokhan Atinc (MechSE) 2014
- Aleksandra Lekić (EE, University of Belgrade) 2017
- Shankar Deka (MechSE) 2019
- Massinissa Amrouche (ISE) 2021
- Yichuan Li (MechSE) 2023
- Theodoros Mamalis (ECE) 2024

Master student sa godinom završetka:

- Chad Burns (MIE) 2006
- Juan Mejía (IESE) 2006
- Christopher Valicka (IESE) 2008
- Benoit Blanquet (ECE) 2008
- Timothy Brdar (MechSE) 2008
- Todd Baxter (IESE) 2009
- Wilfredo Morales (ECE) 2009
- Gokhan Atinc (MechSE) 2009
- Xi Chen (IESE) (co-advisor) 2009
- Joseph Zearing (MechSE) 2010
- Sam Naghshineh (IESE) 2011
- Richard Rekoske (ISE) 2013
- John Nguyen (ISE) 2016
- Shankar Deka (MechSE) 2016
- Ankit Bhardwaj (MechSE) 2016
- Yichuan Li (MechSE) 2018

Gostujući naučnici:

- Yonghong Wu (Ph.D., 2011, University of Science and Technology, Wuhan) 2014-2015

: Gostujući doktorski studenti:

- Martin Saska (Julius Maximilian University, Germany) February-May 2008
- Martin Hess (Julius Maximilian University, Germany) September-December 2008
- Carlos Franco (University of Zaragoza, Spain) March-June 2012
- Wenxue Zhang (Harbin Institute of Technology, China) August 2018-August 2020

Naučni projekti:

- G1. 2005-2010, Trustworthy collision avoidance over information links, The Boeing Company, role: PI, \$702,000 awarded to D. M. Stipanović (total: \$702,000).
- G2. 2008-2011, Safe coordination of multiple autonomous vehicles, NSF, role: PI, \$174,990 awarded to D. M. Stipanović (total: \$300,000).
- G3. 2009-2010, Autonomous and semi-autonomous control of unmanned vehicles, UIUC Campus Research Board, role: PI, \$20,000 awarded to D. M. Stipanović (total: \$22,620).
- G4. 2010-2013, Decentralized estimation and vision-based guidance of fast autonomous systems with guaranteed performance in uncertain environments, US Army Research Office, role: Co-PI, \$161,304 awarded to D. M. Stipanović (total: \$360,189).
- G5. 2010-2012, Trustworthy collision avoidance over information links, The Boeing Company, role: PI, \$160,000 (plus one semester student RA) awarded to D. M. Stipanović.
- G6. 2011-2014, Smart systems for field monitoring and surveillance, Qatar National Research Fund, role: Co-PI. \$150,000 awarded to D. M. Stipanović (total: \$300,000).
- G7. 2013, Game-Theoretic Space Situational Analysis Toolbox, Small Business Technology Transfer (STTR) proposal (Phase 1). \$50,000 awarded to UIUC, role: PI, total: \$150,000.
- G8. 2015-2016, Efficient Surveillance, Rescue, and Threat Detection using Decision Theory and Multi-Objective Control for Multi-Vehicle Systems, 64K awarded to D. M. Stipanović, USC CREATE Homeland Security Center, Department of Homeland Security.
- G9. 2015-2018, NSF National Robotics Initiative: Collaborative Research: ASPIRE: Automation Supporting Prolonged Independent Residence for the Elderly, role: Co-PI, 1.2M total.
- G10. 2017-2018, Distributed Control for Urban Flooding Mitigation, UIUC-Zhejiang University collaboration, \$37,500 awarded to D. M. Stipanović (total: \$75,000), role: Co-PI.
- G11. 2020-2023, NSF National Robotics Initiative and USDA-NIFA: Multi-Vehicle Systems for Collecting Shadow-Free Imagery in Precision Agriculture, \$225,000 awarded to D. M. Stipanović (total: \$749,182), role: PI.
- G12. 2021-2023, Jump ARCHES: Community-based Tele-Rehabilitation Health Network for Robotic Stroke Therapy, PI: D. M. Stipanović, Co-PI: T. Kesavadas (total \$75,000).
- G13. 2022-2024, Jump ARCHES: Telerehabilitation of Stroke Patients through an Adaptive Multirobot Architecture, PI: D. M. Stipanović, Co-PI: A. Horowitz. 160K awarded to D. M. Stipanović (total: \$200,000),