



This survey serves a new project developed by University Politehnica Bucharest in partnership with Reykjavic University, called REALME, aiming to develop new teaching tools by making use of Mixed-Reality (Augmented and Virtual Reality) techniques in order to improve the manner in which courses related to BioMedical Engineering are being taught in our Universities.

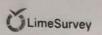
Although this survey was developed initially for Biomedical students, we need input from students coming from all faculties! (Thank you!)

We would really appreciate your help and time invested in answering our questions! We will make sure it gets put to good use!

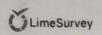
This is the student & alumni survey.

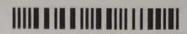
| Section A: My first question group | Section | A: N | Av first | question | group |
|------------------------------------|---------|------|----------|----------|-------|
|------------------------------------|---------|------|----------|----------|-------|

| A1. | Please specify your age. | 1 1 1 | 111    |   |
|-----|--------------------------|-------|--------|---|
|     | 21                       |       |        |   |
| A2. | Please specify your sex. |       |        |   |
|     |                          |       | Female | X |
|     |                          |       |        |   |

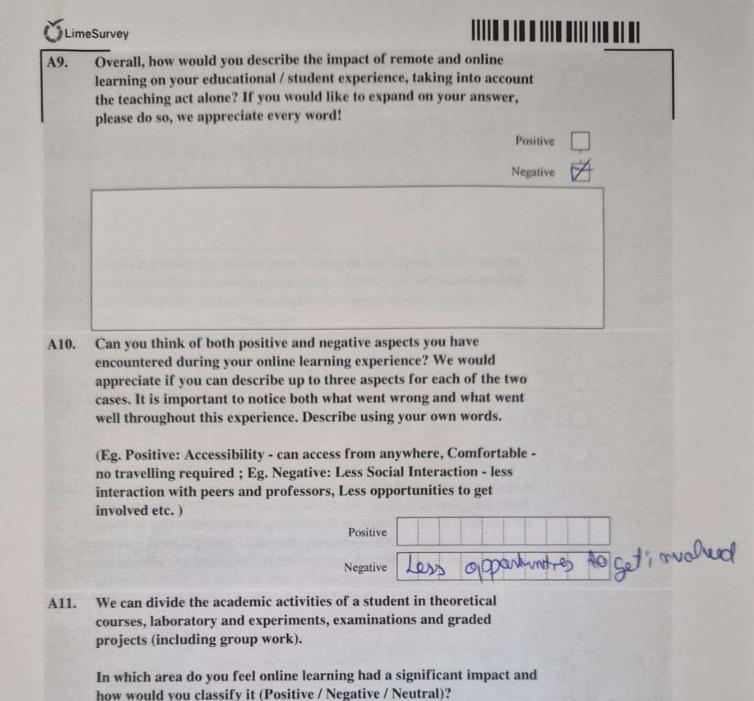


| answers perfectly!  | · K                                     |
|---|---|
| University Politehnica Bucharest, FIM, Bachelo  |   |
| University Politehnica Bucharest, Other, Bachelon   | s 🗀                                     |
| University Politehnica Bucharest, FIM, Master   | s 🗍                                     |
| University Poltehnica Bucharest, Other, Master  | s 🗀                                     |
| Reykjavic University, Bachelo   | or 📋                                    |
| Reykjavic University, Master  | s 📋                                     |
|   |   |
|   |   |
|   |   |
| If desired, please specify the year of study you are currently in or  |   |
|   |   |
| whether you have graduated your study programme.  |   |
| whether you have graduated your study programme.  |   |
| whether you have graduated your study programme.  Year  | 1 📮                                     |
|   | -                                       |
| Year  | 2 🗇                                     |
| Year<br>Year  | 2 D                                     |
| Year<br>Year<br>Year  | 3 🖒                                     |
| Year Year Year Year   | 2 D d d D d                             |
| Year Year Year Year Graduate No Answe Have you experienced remote, online learning, since February 2020?  | 2 D d d D d                             |
| Year Year Year Year Year  Year  Graduate  No Answe  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?                          | 2 D D D D D D D D D D D D D D D D D D D |
| Year Year Year Year Graduate No Answe Have you experienced remote, online learning, since February 2020?  | 2 D D D D D D D D D D D D D D D D D D D |
| Year Year Year Year  Year  Graduate  No Answe  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?                               | 1                                       |
| Year Year Year Year Graduate No Answe Have you experienced remote, online learning, since February 2020? If so, would you please estimate the overall time spent?   | 2                                       |
| Year Year Year  Year  Graduate  No Answe  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 month  6 to 12 month       |   |
| Year Year Year Year Graduate No Answe Have you experienced remote, online learning, since February 2020? If so, would you please estimate the overall time spent?  1 to 6 month 6 to 12 month 1 to 2 year |   |





| 5. | Within Biomedical Engineering or otherwise your area of study, which fields would you pick to reflect areas of interest to you? Please pick three at most.   |                       |  |  |
|----|--|-----------------------|--|--|
|    | (Eg. Bioinformatics, Computational Chemistry, Soft Tissue Implant<br>Engineering, Programming)   | ts<br>bject I         |  |  |
|    | Sul  | ojeci I               |  |  |
|    | Comment  |                       |  |  |
|    | Design   |                       |  |  |
|    | Sul  | bject 2               |  |  |
|    | Comment  |                       |  |  |
|    | Soft Rosur Implants Engineering  |                       |  |  |
|    | Sul  | bject 3               |  |  |
|    | Comment  |                       |  |  |
|    | Acad Toous Implants Engineering  |                       |  |  |
|    | If you could quickly estimate on a scale of 1 - 5, how confident are yo  | ou                    |  |  |
| 7. | If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  Similarly to the previous question, If you could quickly estimate on a  | 1<br>2<br>3<br>4<br>5 |  |  |
|    | If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  | 1 2 3 4 5 a ld ll     |  |  |
|    | Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where wou you see yourself? If you have already done so, please answer how we do you feel you were prepared by your university, using the same 1 - | 1 2 3 4 5 a ld ll     |  |  |
|    | Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where wou you see yourself? If you have already done so, please answer how we do you feel you were prepared by your university, using the same 1 - | 1 2 3 4 5 a ld ll     |  |  |
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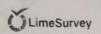


Theoretical Courses

Examinations

Laboratory and Experiments

Graded Projects (including groupwork)



|      | Related to the previous question, would you le<br>or expand your answer? Please do so here, ev<br>appreciation! Thank you!  |   |
|------|---|---|
| A13. | Can you quickly try to rate your feeling of co<br>your theoretical knowledge, practical abilities<br>considering the subjects you manifested most<br>consequence of hybrid learning)  | and independent work,   |
|      | Theory  | 1 2 3 4 5   |
|      | Practical Abilities   |   |
|      | Independent Work (working alone as if already employed)   |   |
|      |   |   |
| A14. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better. | apted by using a hybrid able was in your case the tits teaching style? We ribing the extreme                |
| A14. | two years, to which some universities have ad physical and online teaching system, how suit manner in which your University has adapted are specifically interested in the answers described values (1 and 5) so as to be able to identify structure vulnerabilities in the teaching system better.   | apted by using a hybrid able was in your case the dist teaching style? We ribing the extreme rengths and    |
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| ×   |              |
|-----|--------------|
| 1 3 | 1 ima Curvay |
| 2.3 | LimeSurvey   |

|      | How would you describe the level of interactivity during the online learning specifically? Try to include all cases - theoretical courses, practicals and groups projects. We provided some options, but If you can expand on your answer, please do so in the text box available for   |   |
|------|---|---|
|      | this question!  |   |
|      | Disappointing (got totally lost, on my own, no support)   | <b>K</b>  |
|      | Insufficient (needed more)  | Image: Control of the |
|      | Sufficient (it was fine)  |   |
|      | Great (professors did a great job in spite of the situation)  |   |
|      |   |   |
|      |   | H   |
|      |   |   |
|      |   |   |
| A16. | Following your experience with a hybrid learning system, what aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds |   |
|      | or 5 minutes to go through this question we read everything!  |   |
| A17. | We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning?  Was it enough to allow you to become confident in the studied   |   |
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| A18. | real world, work-related scenarios when studying or doing projects for university? Please rate your level of preparedness for entering the workforce, based on how you feel at this moment, or how prepared you feel you were when you entered the workforce if you have already. |            |
|------|---|------------|
|      |   | 1          |
|      |   | 2          |
|      |   | 3          |
|      |   | 4          |
|      |   | 5          |
| A19. | Do you feel your university, through its teaching style, curriculum and events, connects you (or connected you) well to the working world and its opportunities?  |            |
|      |   |            |
| A20. | Do you, overall, feel you could have been better prepared during your university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!   |            |
|      | (Eg. Training on Mental Health Issues, Required more interactivity during courses, Needed more workforce-related knowledge)   |            |
|      |   |            |
|      |   |            |
| A21. | We're almost done. Please provide some feedback regarding the following experiences (below) by answering with: Great / Sufficient / Insufficient / Disappointing.Online Theoretical Courses   | Vita Carri |
|      | Access to Resources CONCORD INC   | 101750     |
|      | 1000000   |            |
|      | Overall Feeling (Learning Experience)   | Q.         |

|      | eSurvey   |                        |
|------|---|------------------------|
| .22. | We're almost done. Please provide some feedback<br>following experiences (below) by answering with:<br>Insufficient / Disappointing.Laboratory and Exp          | : Great / Sufficient / |
|      | Access to Resources   | THO PROPERTY           |
|      | Level of Engagement   | INSUTTICENT            |
|      | Overall Feeling (Learning Experience)   | INSUFFICIENT           |
| 123. | We're almost done. Please provide some feedback following experiences (below) by answering with Insufficient / Disappointing. Examinations  Access to Resources |                        |
|      | Level of Engagement   | GREAT                  |
|      | Overall Feeling (Learning Experience)   | GREAT                  |
| 24.  | We're almost done. Please provide some feedbac<br>following experiences (below) by answering with<br>Insufficient / Disappointing.Project Work (inclu           | : Great / Sufficient / |
|      | Access to Resources   | SOMICHUT               |
|      |   |                        |

A25. Are you familiar with any of the following terms: Augmented Reality / Virtual Reality / Mixed Reality? These are the techniques we are going to use to bring improvement to the teaching methods within Biomedical Engineering.

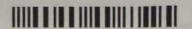
Overall Feeling (Learning Experience)

Yes No

SUPACIEKIT

Thank you so much for getting involved with us!





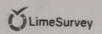
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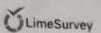
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This is the student & alumni survey.

| Sect | tion A: My first question group |      |     |  |
|------|---------------------------------|------|-----|--|
| A1.  | Please specify your age.        |      |     |  |
| A2.  |                                 | male |     |  |
|      |                                 | Male | (X) |  |



| answers perfectly!   |   |     |
|--|---|-----|
| University Politehnica Bucharest, FIN  | M, Bachelor   | X   |
| University Politehnica Bucharest, Other  | r, Bachelors  |     |
| University Politehnica Bucharest, FI   | IM, Masters   |     |
| University Poltehnica Bucharest, Oth   | ner, Masters  |     |
| Reykjavic Universit  | ty, Bachelor  |     |
| Reykjavic Universi   | ity, Masters  |     |
| Charles Charles  |   |     |
|  |   |     |
|  |   |     |
|  |   |     |
| If desired, please specify the year of study you are currently in or   |   |     |
| it desired, preuse specify the jear of stady jou are carrently in o  | r   |     |
| whether you have graduated your study programme.   |   |     |
|  | r   |     |
|  | Year 1  |     |
|  |   |     |
|  | Year 1  | 口口口 |
|  | Year 1<br>Year 2  |     |
| whether you have graduated your study programme.   | Year 1<br>Year 2<br>Year 3  |     |
| whether you have graduated your study programme.   | Year 1<br>Year 2<br>Year 3<br>Year 4                                      |     |
| Whether you have graduated your study programme.  Have you experienced remote, online learning, since February 20  | Year 1 Year 2 Year 3 Year 4 Graduated No Answer                           |     |
| whether you have graduated your study programme.  Have you experienced remote, online learning, since February 20 If so, would you please estimate the overall time spent? | Year 1 Year 2 Year 3 Year 4 Graduated No Answer                           |     |
| Have you experienced remote, online learning, since February 20 If so, would you please estimate the overall time spent?   | Year 1 Year 2 Year 3 Year 4 Graduated No Answer 120?                      |     |
| Have you experienced remote, online learning, since February 20 If so, would you please estimate the overall time spent?   | Year 1 Year 2 Year 3 Year 4 Graduated No Answer 120?                      |     |
| Have you experienced remote, online learning, since February 20 If so, would you please estimate the overall time spent?   | Year 1 Year 2 Year 3 Year 4 Graduated No Answer 120?                      |     |
| Have you experienced remote, online learning, since February 20 If so, would you please estimate the overall time spent?   | Year 1 Year 2 Year 3 Year 4 Graduated No Answer 120?                      |     |
| Have you experienced remote, online learning, since February 20 If so, would you please estimate the overall time spent?   | Year 1 Year 2 Year 3 Year 4 Graduated No Answer 120? 0 6 months 12 months |     |

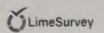


| Within Biomedical Engineering or otherwise your area of study which fields would you pick to reflect areas of interest to you? pick three at most.  (Eg. Bioinformatics, Computational Chemistry, Soft Tissue In Engineering, Programming)  Comment  Comment  Computational Chemistry  Comment  Computational Chemistry  Comment  If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience? | Please                         |          |
|---|--------------------------------|----------|
| Comment  Computational Chemistry  Comment  Computational Chemistry  Comment  If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  | Subject 1 Subject 2            |          |
| Comment  Computational Chemistry  Comment  If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  | Subject 2                      |          |
| Comment  Computational Chemistry  Comment  If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  |                                |          |
| Computational Chemistry  Comment  If you could quickly estimate on a scale of 1 - 5, how confiden at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  |                                |          |
| Computational Chemistry  Comment  If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience?   |                                |          |
| Computational Chemistry  Comment  If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience?   | Subject 3                      | <b>Q</b> |
| Computational Chemistry  Comment  If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience?   | Subject 3                      | <b></b>  |
| Comment  If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  | Subject 3                      | -        |
| If you could quickly estimate on a scale of 1 - 5, how confident at this moment in the skills and knowledge grasped thus far, regarding your academic experience?   |                                |          |
| at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  |                                |          |
| Similarly to the previous question. If you could quickly estim  | 2                              | - 18-    |
| Similarly to the previous question. If you could quickly estim  | 5                              |          |
| scale of 1 - 5 how confident are you at this moment if you were enter the job market in a domain related to your studies, who you see yourself? If you have already done so, please answer do you feel you were prepared by your university, using the state.   | re to<br>ere would<br>how well |          |
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|   | -                              | È        |
|   | 3                              |          |
|   | 3                              |          |

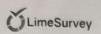
| 97   | neSurvey   |  |  |                               |          |    | h-h-ff |
|------|--|--|--|-------------------------------|----------|----|--------|
| 19.  | Overall, how would you describe the impact of learning on your educational / student experient the teaching act alone? If you would like to expended the experience of the teaching act alone? If you would like to expended the expenses of t | ice, takii   | ng inte  | accor                         |          |    |        |
|      |  |  |  |                               | Positive | E  |        |
|      |  |  |  | 1                             | Vegative | 5  | V      |
|      | overall a good idea we are not educated e it work as intended.   | but  | sh in  | to                            | lmag.    | mi | a      |
| 110. | Can you think of both positive and negative as encountered during your online learning experappreciate if you can describe up to three aspec   | pects you<br>ience? W  | have<br>e wou  | ld<br>the tw                  | o        |    |        |
| 10.  | Can you think of both positive and negative as encountered during your online learning exper   | pects you<br>ience? W<br>cts for ea<br>wrong an<br>g your ov                           | have<br>would what<br>work work                      | ld<br>the tw<br>it wen<br>ds. | o<br>t   |    |        |
| .10. | Can you think of both positive and negative as encountered during your online learning exper appreciate if you can describe up to three aspectases. It is important to notice both what went well throughout this experience. Describe using (Eg. Positive: Accessibility - can access from an no travelling required; Eg. Negative: Less Socienteraction with peers and professors, Less oppositive.  | pects you<br>ience? W<br>cts for ea<br>wrong an<br>y your ov<br>nywhere,<br>ial Intera | have<br>le wou<br>och of<br>od wha<br>wn wor<br>Comf | ld the tw it wen ds. ortable  | o<br>t   |    |        |
| .10. | Can you think of both positive and negative as encountered during your online learning experappreciate if you can describe up to three aspecases. It is important to notice both what went well throughout this experience. Describe using (Eg. Positive: Accessibility - can access from an no travelling required; Eg. Negative: Less Soci   | pects you<br>ience? W<br>cts for ea<br>wrong an<br>y your ov<br>nywhere,<br>al Intera  | have<br>le wou<br>och of<br>od wha<br>wn wor<br>Comf | ld the tw it wen ds. ortable  | o<br>t   |    |        |

In which area do you feel online learning had a significant impact and how would you classify it (Positive / Negative / Neutral)?

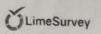
|                                       | Positive | Negative | Neutral |
|---------------------------------------|----------|----------|---------|
| Theoretical Courses                   | X        |          | -0      |
| Laboratory and Experiments            |          | A        | -0      |
| Examinations                          | ×        |          |         |
| Graded Projects (including groupwork) | N        |          |         |



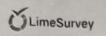
|      | appreciation! Thank you!   | Total Section  |   | 4 3 176               |       |
|------|--|--|---|-----------------------|-------|
|      |  |  |   |                       |       |
|      |  |  |   |                       |       |
|      |  |  |   |                       |       |
|      |  | Total Co.  |   |                       |       |
| A13. | Can you quickly try to rate your feeling of con-<br>your theoretical knowledge, practical abilities<br>considering the subjects you manifested most<br>consequence of hybrid learning)   | and indepen  | dent wor                                      |                       |       |
|      |  | 1 2  | 3   | 4                     | 5     |
|      | Theory   |  | ×   |                       |       |
|      | Practical Abilities  |  | ×   |                       |       |
|      |  |  |   |                       |       |
|      | Independent Work (working alone as if already employed)  |  | <b>X</b>                                      |                       |       |
| A14. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better.                                    | perienced duri<br>apted by usin<br>able was in you<br>lits teaching s<br>ribing the ext                | ing the p<br>g a hybr<br>our case<br>style? W | ast<br>id<br>the      |       |
| A14. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str  | perienced duri<br>apted by usin<br>able was in you<br>lits teaching s<br>ribing the ext                | ing the p<br>g a hybr<br>our case<br>style? W | ast<br>id<br>the      | 5     |
| A14. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str  | perienced duri<br>apted by usin<br>able was in you<br>lits teaching s<br>ribing the ext<br>rengths and | ing the pg a hybrour case style? Wreme        | ast<br>id<br>the<br>e | 5     |
| A14. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better.                                    | perienced duri<br>apted by usin<br>able was in you<br>lits teaching s<br>ribing the ext<br>rengths and | ing the pg a hybrour case style? Wreme        | ast<br>id<br>the<br>e | ,<br> |
| A14. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better.  University Adapted Teaching Style | perienced duri<br>apted by usin<br>able was in you<br>lits teaching s<br>ribing the ext<br>rengths and | ing the pg a hybrour case style? Wreme        | ast<br>id<br>the<br>e | , 0   |

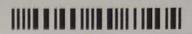


|      | learning specifically? Try to include all cases - theoretical courses, practicals and groups projects. We provided some options, but If you can expand on your answer, please do so in the text box available for this question!   |    |
|------|--|----|
|      | Disappointing (got totally lost, on my own, no support)  |    |
|      | Insufficient (needed more)   |    |
|      | Sufficient (it was fine)   | K  |
|      | Great (professors did a great job in spite of the situation)   |    |
|      |  |    |
|      |  |    |
| A16. | Following your experience with a hybrid learning system, what aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds or 5 minutes to go through this question we read everything! |    |
|      | or 5 minutes to go through this question we read everything.   |    |
|      |  |    |
| A17. | We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning? Was it enough to allow you to become confident in the studied subjects? Try to place it on a scale of 1 - 5.  |    |
| A17. | We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning? Was it enough to allow you to become confident in the studied   | 5  |
| A17. | We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning? Was it enough to allow you to become confident in the studied subjects? Try to place it on a scale of 1 - 5.  | \$ |

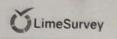


| A18. | During your years at the university how connected did you feel to the real world, work-related scenarios when studying or doing projects for university? Please rate your level of preparedness for entering the workforce, based on how you feel at this moment, or how prepared you feel you were when you entered the workforce if you have already. |     |
|------|---|-----|
|      |   | ,   |
|      |   | 2 💢 |
|      |   | 3   |
|      |   | 4   |
|      |   | 5   |
| A19. | Do you feel your university, through its teaching style, curriculum and events, connects you (or connected you) well to the working world and its opportunities?  |     |
|      | Not roo much.   | 017 |
| A20. | Do you, overall, feel you could have been better prepared during your university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!  (Eg. Training on Mental Health Issues, Required more interactivity     |     |
|      | during courses, Needed more workforce-related knowledge)  |     |
|      | A let of courses need updates.  |     |
| 121  | We're almost done. Please provide some feedback regarding the following experiences (below) by answering with: Great / Sufficient / Insufficient / Disappointing.Online Theoretical Courses   |     |
|      |   | ENT |
|      | Level of Engagement 6 R EA T  |     |
|      | Overall Feeling (Learning Experience) 6 UFFICI  | ENT |





| A22. | We're almost done. Please provide some feedba-<br>following experiences (below) by answering with<br>Insufficient / Disappointing. Laboratory and Ex                       | h: Great / Sufficient / |
|------|--|-------------------------|
|      | Access to Resources  | INSUFFICIENT            |
|      | Level of Engagement  | SUFFICIENT              |
|      | Overall Feeling (Learning Experience)  | SUFFICIENT              |
| A23. | We're almost done. Please provide some feedba<br>following experiences (below) by answering with<br>Insufficient / Disappointing.Examinations                              | h: Great / Sufficient / |
|      | Access to Resources  | SUFFICIENT              |
|      | Level of Engagement  | GREAT                   |
|      | Overall Feeling (Learning Experience)  | SUFFICIENT              |
| A24. | We're almost done. Please provide some feedba<br>following experiences (below) by answering with<br>Insufficient / Disappointing.Project Work (included)                   | h: Great / Sufficient / |
|      |  | 1 HS U FF I CIENT       |
|      | Level of Engagement  | SOFFICIENT              |
|      | Overall Feeling (Learning Experience)  | GREAT                   |
| A25. | Are you familiar with any of the following term / Virtual Reality / Mixed Reality? These are the going to use to bring improvement to the teaching Biomedical Engineering. | techniques we are       |
|      |  |                         |
|      |  | Yes X                   |
|      |  | No 🗋                    |
|      | Thank you so much for getting  | ng involved with us!    |
|      |  |                         |





This survey serves a new project developed by University Politehnica Bucharest in partnership with Reykjavic University, called REALME, aiming to develop new teaching tools by making use of Mixed-Reality (Augmented and Virtual Reality) techniques in order to improve the manner in which courses related to BioMedical Engineering are being taught in our Universities.

Although this survey was developed initially for Biomedical students, we need input from students coming from all faculties! (Thank you!)

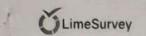
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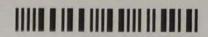
This is the student & alumni survey.

You can reach us at: sebmuraru@gmail.com

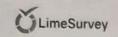
## Section A: My first question group

| A1. | Please specify your age. |        |
|-----|--------------------------|--------|
|     | 27                       |        |
| A2. | Please specify your sex. |        |
|     |                          |        |
|     |                          | Female |



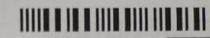


| answers perfectly!   |          |
|--|----------|
| University Politehnica Bucharest, FIM, Bachelor  | P        |
| University Politehnica Bucharest, Other, Bachelors   | $\Box$   |
| University Politehnica Bucharest, FIM, Masters   | 口        |
| University Poltehnica Bucharest, Other, Masters  |          |
| Reykjavic University, Bachelor   |          |
| Reykjavic University, Masters  |          |
| Medical reng.  |          |
| Mich   | 11 3 5 5 |
|  | 1        |
|  | 344      |
|  | 1        |
|  |          |
| If desired, please specify the year of study you are currently in or   |          |
|  |          |
| whether you have graduated your study programme.   |          |
|  |          |
|  | 9        |
| whether you have graduated your study programme.   |          |
| whether you have graduated your study programme.  Year 1   |          |
| whether you have graduated your study programme.  Year 1  Year 2   |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3   |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4   |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer   |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?   |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?   |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 months                                      |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 months  6 to 12 months                      |          |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 months 6 to 12 months 1 to 2 years 2+ years |          |
| whether you have graduated your study programme.  Year 1 Year 2 Year 3 Year 4 Graduated No Answer  Have you experienced remote, online learning, since February 2020? If so, would you please estimate the overall time spent?  1 to 6 months 6 to 12 months 1 to 2 years                |          |

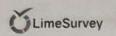


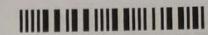
|  | ional Chemistry, Soft Tissue Implants  |
|--|--|
| Engineering, Programming)  | Subject I  |
| Comment  |  |
| 50 Pt Tissue Ima   | plants eng.  |
|  | Subject 2  |
| Comment  | Subject 2  |
| Bioinformatics   | U single Ave and the second  |
|  | Subject 3  |
|  | Subject  |
| Computational Ch   | وساد ۲۷۸،  |
| Com  |  |
|  |  |
|  | a scale of 1 - 5, how confident are you knowledge grasped thus far,  |
| If you could quickly estimate on<br>at this moment in the skills and<br>regarding your academic experi   | knowledge grasped thus far,  |
| at this moment in the skills and   | knowledge grasped thus far,  |
| at this moment in the skills and   | knowledge grasped thus far,  |
| at this moment in the skills and   | knowledge grasped thus far, ence?  |
| at this moment in the skills and   | knowledge grasped thus far, ence?  |
| at this moment in the skills and   | knowledge grasped thus far, ence?  |
| at this moment in the skills and regarding your academic experio   | knowledge grasped thus far, ence?  1 2 3 on, If you could quickly estimate on a  |
| Similarly to the previous questions and this moment in the skills and regarding your academic experions.   | knowledge grasped thus far, ence?  1  2  3  on, If you could quickly estimate on a ou at this moment if you were to  |
| Similarly to the previous questions and the skills and regarding your academic experions are senter the job market in a domain you see yourself? If you have also regarding the skills and regarding to the previous questions are skills and regarding to the previous questions. | knowledge grasped thus far, ence?  1 2 3 on, If you could quickly estimate on a you at this moment if you were to a related to your studies, where would ready done so, please answer how well |
| Similarly to the previous questions and this moment in the skills and regarding your academic experiors are scale of 1 - 5 how confident are your see yourself? If you have already ou feel you were prepared by   | knowledge grasped thus far, ence?  1 2 3 on, If you could quickly estimate on a you at this moment if you were to a related to your studies, where would                                       |
| Similarly to the previous questions and the skills and regarding your academic experions are senter the job market in a domain you see yourself? If you have also regarding the skills and regarding to the previous questions are skills and regarding to the previous questions. | knowledge grasped thus far, ence?  1 2 3 on, If you could quickly estimate on a you at this moment if you were to a related to your studies, where would ready done so, please answer how well |
| Similarly to the previous questions and this moment in the skills and regarding your academic experiors are scale of 1 - 5 how confident are your see yourself? If you have already ou feel you were prepared by   | knowledge grasped thus far, ence?  1 2 3 on, If you could quickly estimate on a you at this moment if you were to a related to your studies, where would ready done so, please answer how well |
| Similarly to the previous questions and this moment in the skills and regarding your academic experiors are scale of 1 - 5 how confident are your see yourself? If you have already ou feel you were prepared by   | knowledge grasped thus far, ence?  1 2 3 on, If you could quickly estimate on a you at this moment if you were to a related to your studies, where would ready done so, please answer how well |

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|---|-------------|
| U | LimeSurvey  |

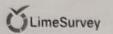


|      | the teaching act alone? If you would like to expand on your answer,  |
|------|--|
|      | please do so, we appreciate every word!  |
|      | Positive   |
|      | Negative   |
|      |  |
|      |  |
|      |  |
|      |  |
| 110. | Can you think of both positive and negative aspects you have   |
|      | encountered during your online learning experience? We would   |
|      | appreciate if you can describe up to three aspects for each of the two cases. It is important to notice both what went wrong and what went   |
|      | well throughout this experience. Describe using your own words.  |
|      | (Eg. Positive: Accessibility - can access from anywhere, Comfortable -   |
|      | no travelling required ; Eg. Negative: Less Social Interaction - less  |
|      | interaction with peers and professors, Less opportunities to get   |
|      | involved etc.)   |
|      | involved etc.)  Positive A C C e 5 5 1 0 1143 10   |
|      |  |
| A11. | Positive A c c e s 5 1 0 1:45 10   |
| A11. | Positive A c c = 5 5 1 0 1143 10  Negative 3   |
| A11. | Positive A C C e S S 1 D 1245 10  Negative 3  We can divide the academic activities of a student in theoretical courses, laboratory and experiments, examinations and graded   |
| A11. | Negative Negative 3  We can divide the academic activities of a student in theoretical courses, laboratory and experiments, examinations and graded projects (including group work).  In which area do you feel online learning had a significant impact and   |
| A11. | We can divide the academic activities of a student in theoretical courses, laboratory and experiments, examinations and graded projects (including group work).  In which area do you feel online learning had a significant impact and how would you classify it (Positive / Negative / Neutral)?   |
| A11. | Negative Negative 3  We can divide the academic activities of a student in theoretical courses, laboratory and experiments, examinations and graded projects (including group work).  In which area do you feel online learning had a significant impact and how would you classify it (Positive / Negative / Neutral)?  |
| 11.  | We can divide the academic activities of a student in theoretical courses, laboratory and experiments, examinations and graded projects (including group work).  In which area do you feel online learning had a significant impact and how would you classify it (Positive / Negative / Neutral)?  Positive Negative |

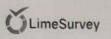




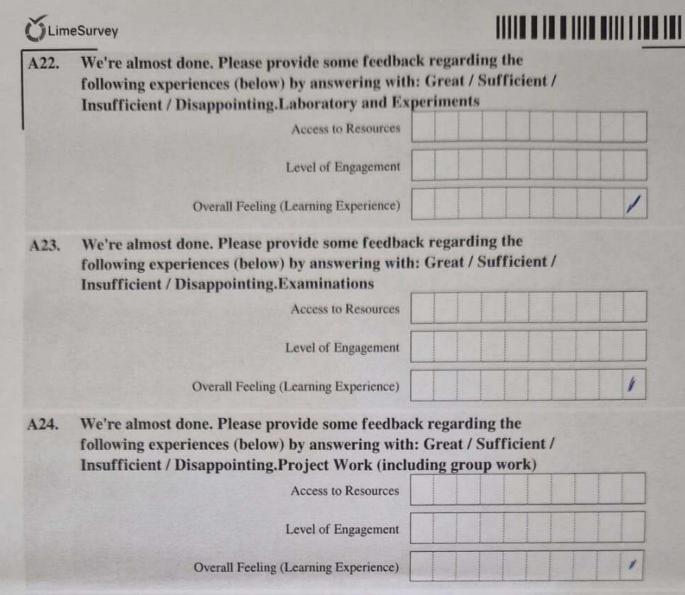
|      | or expand your answer? Please do so here, ev<br>appreciation! Thank you!   | ery word gets our shent   |
|------|--|---|
|      |  |   |
|      |  |   |
|      |  |   |
| A13. | Can you quickly try to rate your feeling of co<br>your theoretical knowledge, practical abilities<br>considering the subjects you manifested mos<br>consequence of hybrid learning)  | s and independent work,   |
|      |  | 1 2 3 4 5   |
|      | Theory   |   |
|      | Practical Abilities  |   |
|      | Independent Work (working alone as if already employed)  |   |
|      | independent work (working alone as it already employed)  |   |
|      | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify stream   | perienced during the past<br>lapted by using a hybrid<br>table was in your case the<br>d its teaching style? We<br>cribing the extreme                |
|      | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str  | perienced during the past<br>lapted by using a hybrid<br>table was in your case the<br>d its teaching style? We<br>cribing the extreme                |
|      | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str  | perienced during the past<br>lapted by using a hybrid<br>table was in your case the<br>d its teaching style? We<br>cribing the extreme<br>rengths and |
|      | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better.                                    | perienced during the past<br>lapted by using a hybrid<br>table was in your case the<br>d its teaching style? We<br>cribing the extreme<br>rengths and |
| 114. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better.  University Adapted Teaching Style | perienced during the past<br>lapted by using a hybrid<br>table was in your case the<br>d its teaching style? We<br>cribing the extreme<br>rengths and |



| A15. | How would you describe the level of interactivity during the online learning specifically? Try to include all cases - theoretical courses, practicals and groups projects. We provided some options, but If you can expand on your answer, please do so in the text box available for this question!   |       |
|------|--|-------|
|      | Disappointing (got totally lost, on my own, no support)  |       |
|      | Insufficient (needed more)   |       |
|      | Sufficient (it was fine)   | 中中中   |
|      | Great (professors did a great job in spite of the situation)   |       |
|      |  |       |
| A16. | Following your experience with a hybrid learning system, what aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds or 5 minutes to go through this question we read everything!  It is good and in the same time is important to give the curs some attention like to be 5 online and face to face  | 1 0%. |
| A16. | aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds or 5 minutes to go through this question we read everything!   | 1 0%  |
|      | aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds or 5 minutes to go through this question we read everything!  It is good and in the same time is imported to give the curs some attention like to be 5 and face to face  We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning? Was it enough to allow you to become confident in the studied subjects? Try to place it on a scale of 1 - 5.           | 07.   |
|      | aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds or 5 minutes to go through this question we read everything!  It is good tand in the same time is important to give the curs some attention like to be 5 online and face to face  We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning?  Was it enough to allow you to become confident in the studied subjects? Try to place it on a scale of 1 - 5. | o7.   |



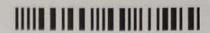
| A18. | During your years at the university how connected did you feel to the real world, work-related scenarios when studying or doing projects for university? Please rate your level of preparedness for entering the workforce, based on how you feel at this moment, or how prepared you feel you were when you entered the workforce if you have already. |    |   |
|------|---|----|---|
|      |   | 1  |   |
|      |   | 2  |   |
|      |   | 3  | H |
|      |   | 4  |   |
|      |   | 5  |   |
| A19. | Do you feel your university, through its teaching style, curriculum and events, connects you (or connected you) well to the working world and its opportunities?  |    |   |
|      | almost.   |    |   |
| A20. | Do you, overall, feel you could have been better prepared during your university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!   |    |   |
|      | (Eg. Training on Mental Health Issues, Required more interactivity  |    |   |
|      | dependent the student, some times is better?  curs to be face to face   | he |   |
|      |   |    |   |
| A21. | We're almost done. Please provide some feedback regarding the following experiences (below) by answering with: Great / Sufficient / Insufficient / Disappointing.Online Theoretical Courses   |    |   |
|      | Access to Resources /   |    |   |
|      | Level of Engagement   |    |   |



A25. Are you familiar with any of the following terms: Augmented Reality / Virtual Reality / Mixed Reality? These are the techniques we are going to use to bring improvement to the teaching methods within Biomedical Engineering.

Yes /

Thank you so much for getting involved with us!



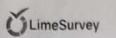
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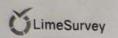
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This is the student & alumni survey.

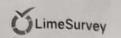
| Sect | tion A: My fi    | rst questi | on gro | up |   |  |  |        |   |
|------|------------------|------------|--------|----|---|--|--|--------|---|
| A1.  | Please specify y | your age.  |        |    | - |  |  |        |   |
| A2.  | Please specify y |            |        |    |   |  |  | Female | X |
|      |                  |            |        |    |   |  |  | Male   |   |

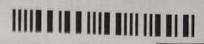


| so we know your background better, even if you fit one of the offered answers perfectly!  |  |
|---|--|
| University Politehnica Bucharest, FIM, Bachelor   | So.                                    |
| University Politehnica Bucharest, Other, Bachelors  |  |
| University Politehnica Bucharest, FIM, Masters  | ¢                                      |
| University Poltehnica Bucharest, Other, Masters   |  |
| Reykjavic University, Bachelor  |  |
| Reykjavic University, Masters   |  |
|   |  |
| If desired, please specify the year of study you are currently in or whether you have graduated your study programme.   |  |
|   |  |
| whether you have graduated your study programme.  |  |
| whether you have graduated your study programme.  Year 1  | 10000000000000000000000000000000000000 |
| whether you have graduated your study programme.  Year 1  Year 2  |  |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  | 口口每口口                                  |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  |  |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated   |  |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  |  |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  |  |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 months                               |  |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 months  6 to 12 months               |  |
| whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4  Graduated  No Answer  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 months  6 to 12 months  1 to 2 years |  |

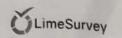


| Within Biomedical Engineering or otherwise your area of study, which fields would you pick to reflect areas of interest to you? Plea pick three at most. | ise         |   |   |
|--|-------------|---|---|
| (Eg. Bioinformatics, Computational Chemistry, Soft Tissue Implar<br>Engineering, Programming)  |             |   |   |
| S  | ubject      | 1 |   |
| Comment  |             |   |   |
| Soft Tissue Implouts Engineering   |             |   |   |
|  | ubject 2    | 2 |   |
| Comment  |             |   |   |
| Hord Tissue Implonts Engineer No   |             |   |   |
|  | ubject :    | 3 |   |
|  |             |   |   |
| Comment  | 40,010      |   | _ |
| Computational Cleenistray  |             |   |   |
|  | 2           | 2 |   |
|  | 3           | 3 |   |
|  | 4           |   |   |
|  |             |   |   |
|  | 3           |   |   |
| Similarly to the previous question, If you could quickly estimate on scale of 1 - 5 how confident are you at this moment if you were to                  | a           |   |   |
| enter the job market in a domain related to your studies, where wou  |             |   |   |
| you see yourself? If you have already done so, please answer how w<br>do you feel you were prepared by your university, using the same 1                 |             |   |   |
| scale.   |             |   |   |
|  |             |   |   |
|  | 1           |   |   |
|  | 1 2         |   |   |
|  | 2           |   |   |
|  | 3           |   |   |
|  | 1<br>2<br>3 |   |   |



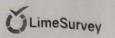


| AJ.  | learning on your educational / student experience, taking in<br>the teaching act alone? If you would like to expand on your<br>please do so, we appreciate every word!  | ato account                      |
|------|---|----------------------------------|
|      |   | Positive                         |
|      |   | Negative 😕                       |
|      |   |                                  |
| A10. | Can you think of both positive and negative aspects you have encountered during your online learning experience? We wanted appreciate if you can describe up to three aspects for each cases. It is important to notice both what went wrong and was well throughout this experience. Describe using your own was (Eg. Positive: Accessibility - can access from anywhere, Conno travelling required; Eg. Negative: Less Social Interaction | ould of the two what went words. |
|      | interaction with peers and professors, Less opportunities to involved etc. )  | get                              |
|      | Positive COM  | FORTABLE<br>SOCIAL INTERACTION   |
| A11. | We can divide the academic activities of a student in theore courses, laboratory and experiments, examinations and graph projects (including group work).   | tical                            |
|      | In which area do you feel online learning had a significant is how would you classify it (Positive / Negative / Neutral)?   | mpact and                        |
|      |   | Positive Negative Neutral        |
|      | Theoretical Courses   |                                  |
|      | Laboratory and Experiments  |                                  |
|      | Examinations  |                                  |
|      | Graded Projects (including groupwork)   |                                  |
|      |   |                                  |

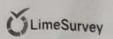




|      | appreciation! Thank you!  |   |
|------|---|---|
|      |   |   |
|      |   |   |
|      |   |   |
|      |   |   |
| 13.  | Can you quickly try to rate your feeling of co  | nfidence confidence in  |
|      | your theoretical knowledge, practical abilities<br>considering the subjects you manifested mos  | t interest in? (As a  |
|      | consequence of hybrid learning)   |   |
|      |   | 1 2 3 4 5   |
|      | Theory  |   |
|      | Practical Abilities   |   |
|      |   |   |
|      | Independent Work (working alone as if already employed)   |   |
| 114. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better. | perienced during the past apted by using a hybrid table was in your case the lits teaching style? We cribing the extreme              |
| 114. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str   | perienced during the past apted by using a hybrid table was in your case the lits teaching style? We cribing the extreme              |
| 114. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str   | perienced during the past lapted by using a hybrid lable was in your case the lits teaching style? We cribing the extreme rengths and |
| 114. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better. | perienced during the past lapted by using a hybrid lable was in your case the lits teaching style? We cribing the extreme rengths and |
| 114. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better. | perienced during the past lapted by using a hybrid lable was in your case the lits teaching style? We cribing the extreme rengths and |

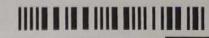


|      | practicals and groups projects. We provided some options, but If you can expand on your answer, please do so in the text box available for this question!  |     |
|------|--|-----|
|      | Disappointing (got totally lost, on my own, no support)  |     |
|      |  |     |
|      | Sufficient (it was fine)   |     |
|      | Great (professors did a great job in spite of the situation)   |     |
|      |  |     |
|      |  |     |
| A16. | Following your experience with a hybrid learning system, what aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds or 5 minutes to go through this question we read everything! |     |
|      | ACCESSABILITY, COMFORTABLE   |     |
| A17. | We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning? Was it enough to allow you to become confident in the studied subjects? Try to place it on a scale of 1 - 5.  |     |
|      | 1 2 3 4  | 5   |
|      | Online Learning  | M   |
|      | Offline Learning   | [w] |



| A18. | During your years at the university how connected did you feel to the real world, work-related scenarios when studying or doing projects for university? Please rate your level of preparedness for entering the workforce, based on how you feel at this moment, or how prepared you feel you were when you entered the workforce if you have already. |     |
|------|---|-----|
|      |   | 1 🖵 |
|      |   | 2   |
|      |   | 3   |
|      |   | 4 😺 |
|      |   | 5   |
| A19. | Do you feel your university, through its teaching style, curriculum and events, connects you (or connected you) well to the working world and its opportunities?  |     |
|      | YES   |     |
| A20. | Do you, overall, feel you could have been better prepared during your university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!   |     |
|      | (Eg. Training on Mental Health Issues, Required more interactivity during courses, Needed more workforce-related knowledge)   |     |
|      | JES - MORE INTERACTIVITY DURING COURSES   |     |
|      |   |     |
| A21. | We're almost done. Please provide some feedback regarding the following experiences (below) by answering with: Great / Sufficient / Insufficient / Disappointing.Online Theoretical Courses   |     |
|      |   |     |
| BB   | Access to Resources GREAT   |     |

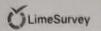
| Ó | LimeSurvey |  |
|---|------------|--|
| O | LimeSurvey |  |



No

| A22. | We're almost done. Please provide some feedba<br>following experiences (below) by answering wit<br>Insufficient / Disappointing.Laboratory and Ex-                                | h: Great / Sufficient / |
|------|---|-------------------------|
|      | Access to Resources   | I NSU FAI CIENT         |
|      | Level of Engagement   | SUFFICIENT              |
|      | Overall Feeling (Learning Experience)   | DISAPPOINTING           |
| A23. | We're almost done. Please provide some feedba<br>following experiences (below) by answering wit<br>Insufficient / Disappointing.Examinations                                      |                         |
|      | Access to Resources   | GREAT                   |
|      | Level of Engagement   | GREAT                   |
|      | Overall Feeling (Learning Experience)   | GREAT                   |
| A24. | We're almost done. Please provide some feedba<br>following experiences (below) by answering wit<br>Insufficient / Disappointing.Project Work (incl                                | h: Great / Sufficient / |
|      | Access to Resources   | GREAT                   |
|      | Level of Engagement   | GREAT                   |
|      | Overall Feeling (Learning Experience)   | GREAT                   |
| A25. | Are you familiar with any of the following term<br>/ Virtual Reality / Mixed Reality? These are the<br>going to use to bring improvement to the teachi<br>Biomedical Engineering. | techniques we are       |
|      |   | Yes 🔀                   |

Thank you so much for getting involved with us!





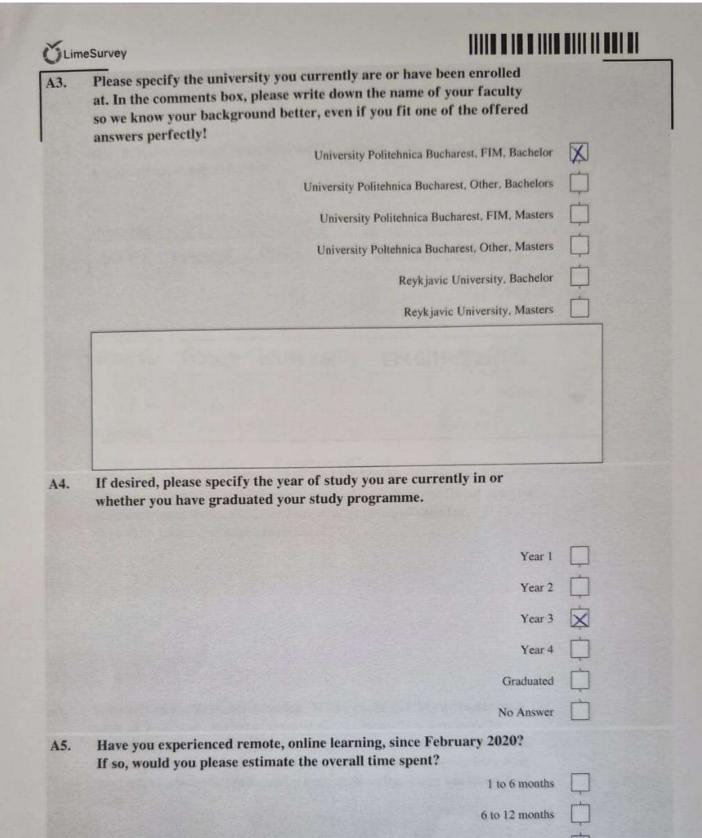
This survey serves a new project developed by University Politehnica Bucharest in partnership with Reykjavic University, called REALME, aiming to develop new teaching tools by making use of Mixed-Reality (Augmented and Virtual Reality) techniques in order to improve the manner in which courses related to BioMedical Engineering are being taught in our Universities.

Although this survey was developed initially for Biomedical students, we need input from students coming from all faculties! (Thank you!)

We would really appreciate your help and time invested in answering our questions! We will make sure it gets put to good use!

This is the student & alumni survey.

| 11. | Please specify your age. |  |  |  |     |            | ] |
|-----|--------------------------|--|--|--|-----|------------|---|
| 12. | Please specify your sex. |  |  |  |     |            |   |
|     |                          |  |  |  | Fem | ale<br>ale |   |

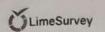


1 to 2 years

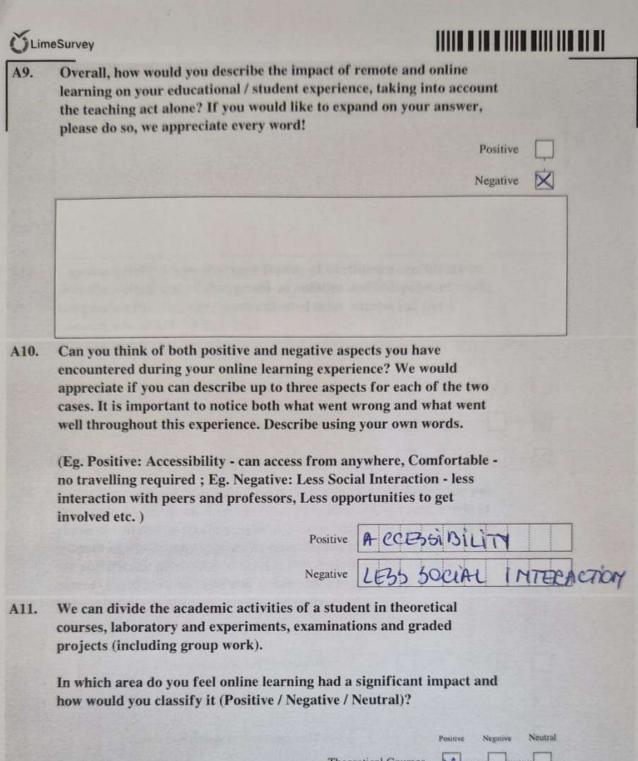
2+ years

No answer

No

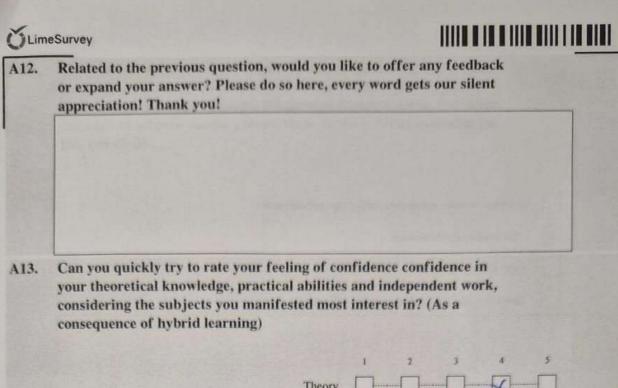


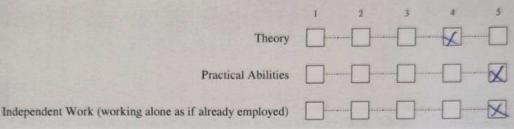
| Within Biomedical Engineering or otherwise your area of study, which fields would you pick to reflect areas of interest to you? Please pick three at most. |   |   |   |   |  |   |
|--|---|---|---|---|--|---|
|  | (Eg. Bioinform<br>Engineering, F  | natics, Com<br>Programmi  | putational Cheming)   | stry, Soft Tissue I   | mplants Subject 1                          | <b>Q</b>                                |
|  | Comment   |   |   |   |  |   |
|  | 50FT T  | 155UE   | IMPLANTS  | EHGINEE   | eing                                       |   |
|  |   |   |   |   | Subject 2                                  | P                                       |
|  | HACA  | Tissue  | IMPLANTS.   | ENGÎNEE   | RING                                       |   |
|  |   |   |   |   | Subject 3                                  | Q                                       |
|  | Comment   |   |   |   |  |   |
|  | -   |   |   |   |  |   |
|  | COMPUTA   |   | CHEMIST   |   | at are vou                                 |   |
|  | COM PUTA  | uickly estin  | nate on a scale of<br>lls and knowledge                                   | 1 - 5, how confider   | nt are you                                 |   |
|  | COM PUTA<br>If you could q<br>at this momen   | uickly estin  | nate on a scale of<br>lls and knowledge                                   | 1 - 5, how confider   | 1  | 0.0                                     |
|  | COM PUTA<br>If you could q<br>at this momen   | uickly estin  | nate on a scale of<br>lls and knowledge                                   | 1 - 5, how confider   | nt are you                                 | 000                                     |
|  | COM PUTA<br>If you could q<br>at this momen   | uickly estin  | nate on a scale of<br>lls and knowledge                                   | 1 - 5, how confider   | 1  | 0000                                    |
|  | COM PUTA<br>If you could q<br>at this momen   | uickly estin  | nate on a scale of<br>lls and knowledge                                   | 1 - 5, how confider   | 1  | 口口口口口                                   |
|  | COM PUTA  If you could q at this momen regarding you  | uickly estin<br>at in the ski<br>ar academic  | mate on a scale of<br>lls and knowledge<br>experience?                    | l - 5, how confider<br>grasped thus far,                                | 1<br>2<br>3<br>4<br>5                      | 口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口 |
|  | COM PUTA  If you could q at this momen regarding you  Similarly to the scale of 1 - 5 he enter the job in you see yourse. | nickly estinated in the sking academic | nate on a scale of<br>lls and knowledge                                   | ould quickly estimenoment if you we your studies, who so, please answer | 2 3 4 5 nate on a re to ere would how well |   |
|  | Similarly to the scale of 1 - 5 henter the job in you see yourse do you feel you  | nickly estinated in the sking academic | question, If you cent are you at this domain related to have already done | ould quickly estimenoment if you we your studies, who so, please answer | 2 3 4 5 nate on a re to ere would how well |   |
|  | Similarly to the scale of 1 - 5 henter the job in you see yourse do you feel you  | nickly estinated in the sking academic | question, If you cent are you at this domain related to have already done | ould quickly estimenoment if you we your studies, who so, please answer | 2 3 4 5 nate on a re to ere would how well |   |
|  | Similarly to the scale of 1 - 5 henter the job in you see yourse do you feel you  | nickly estinated in the sking academic | question, If you cent are you at this domain related to have already done | ould quickly estimenoment if you we your studies, who so, please answer | 2 3 4 5 nate on a re to ere would how well | 10000000000000000000000000000000000000  |
|  | Similarly to the scale of 1 - 5 henter the job in you see yourse do you feel you  | nickly estinated in the sking academic | question, If you cent are you at this domain related to have already done | ould quickly estimenoment if you we your studies, who so, please answer | 2 3 4 5 nate on a re to ere would how well | 口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口口  |



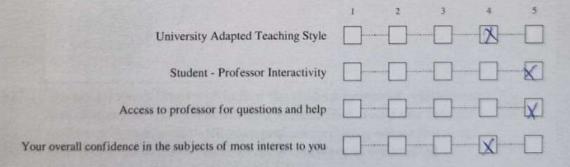
Graded

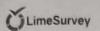
| Positive | Negative | Neutra |
|----------|----------|--------|
| X.       |          |        |
| <b>V</b> |          |        |
|          |          | X      |
|          |          | X      |
|          |          |        |



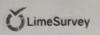


A14. Given the uncertain situations many have experienced during the past two years, to which some universities have adapted by using a hybrid physical and online teaching system, how suitable was in your case the manner in which your University has adapted its teaching style? We are specifically interested in the answers describing the extreme values (1 and 5) so as to be able to identify strengths and vulnerabilities in the teaching system better.

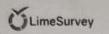




| A15.  | How would you describe the level of interactivity during the online<br>learning specifically? Try to include all cases - theoretical courses,<br>practicals and groups projects. We provided some options, but If you  |     |
|-------|--|-----|
|       | can expand on your answer, please do so in the text box available for this question!   |     |
|       | Disappointing (got totally lost, on my own, no support)  |     |
|       | Insufficient (needed more)   |     |
|       | Sufficient (it was fine)   |     |
|       | Great (professors did a great job in spite of the situation)   |     |
|       | Creat (processors due a great joir in spice of the situation)  |     |
|       |  |     |
|       | The sale of the sa |     |
|       |  |     |
|       |  |     |
| A16.  | Following your experience with a hybrid learning system, what aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds or 5 minutes to go through this question we read everything!   |     |
| A17.  | We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning?  Was it enough to allow you to become confident in the studied  |     |
|       | subjects? Try to place it on a scale of 1 - 5.   |     |
|       | Online Learning \( \sum \)   | 5   |
|       | Offline Learning   | (X) |
|       |  |     |
|       |  |     |
| ALTER |  |     |



| A18. | real world, work-related scenarios when studying or doing projects for university? Please rate your level of preparedness for entering the workforce, based on how you feel at this moment, or how prepared you feel you were when you entered the workforce if you have already.  |         |
|------|--|---------|
|      |  | 1 🗇     |
|      |  | 2       |
|      |  | 3 📮     |
|      |  | 4 🖄     |
|      |  | 5       |
| A19. | Do you feel your university, through its teaching style, curriculum and events, connects you (or connected you) well to the working world and its opportunities?   |         |
| A20. | Do you, overall, feel you could have been better prepared during your university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!  (Eg. Training on Mental Health Issues, Required more interactivity during courses, Needed more workforce-related knowledge) |         |
|      |  |         |
|      |  |         |
| A21. | We're almost done. Please provide some feedback regarding the following experiences (below) by answering with: Great / Sufficient / Insufficient / Disappointing.Online Theoretical Courses  |         |
| A21. | following experiences (below) by answering with: Great / Sufficient / Insufficient / Disappointing.Online Theoretical Courses  Access to Resources   |         |
| A21. | following experiences (below) by answering with: Great / Sufficient / Insufficient / Disappointing.Online Theoretical Courses  Access to Resources  Level of Engagement  | Ficient |



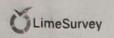


| A22. | We're almost done. Please provide some feedba<br>following experiences (below) by answering wit<br>Insufficient / Disappointing. Laboratory and Ex  | h: Great / Sufficient / |
|------|---|-------------------------|
|      | Access to Resources   | GREAT                   |
|      | Level of Engagement   | GREAT                   |
|      | Overall Feeling (Learning Experience)   | GREAT                   |
| A23. | We're almost done. Please provide some feedba<br>following experiences (below) by answering wit<br>Insufficient / Disappointing. Examinations       |                         |
|      | Access to Resources   | GREAT                   |
|      | Level of Engagement   | 6 REAT                  |
|      | Overall Feeling (Learning Experience)   | 5UFFILIEMT              |
| A24. | We're almost done. Please provide some feedba<br>following experiences (below) by answering wit<br>Insufficient / Disappointing. Project Work (incl | h: Great / Sufficient / |
|      | Access to Resources   | SUFFI GREAT             |
|      | Level of Engagement   | GREAT                   |
|      | Overall Feeling (Learning Experience)   | SUFFICIENT              |
| A25. | Are you familiar with any of the following term<br>/ Virtual Reality / Mixed Reality? These are the   |                         |

A25. Are you familiar with any of the following terms: Augmented Reality / Virtual Reality / Mixed Reality? These are the techniques we are going to use to bring improvement to the teaching methods within Biomedical Engineering.

Yes X

Thank you so much for getting involved with us!





Hi!

This survey serves a new project developed by University Politehnica Bucharest in partnership with Reykjavic University, called REALME, aiming to develop new teaching tools by making use of Mixed-Reality (Augmented and Virtual Reality) techniques in order to improve the manner in which courses related to BioMedical Engineering are being taught in our Universities.

Although this survey was developed initially for Biomedical students, we need input from students coming from all faculties! (Thank you!)

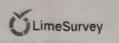
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This is the student & alumni survey.

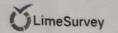
You can reach us at: sebmuraru@gmail.com

Section A: My first question group

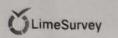
| A1. | Please specify y | your age. |        |  |
|-----|------------------|-----------|--------|--|
|     |                  | 21        |        |  |
| A2. | Please specify y | our sex.  |        |  |
|     |                  |           | Female |  |
|     |                  |           |        |  |



| answers perfectly!  University Politehnica Bucharest, FIM, Bache   | lor 🔽 |
|--|-------|
| University Politehnica Bucharest, Other, Bachele   |       |
|  | -     |
| University Politehnica Bucharest, FIM, Maste   | -     |
| University Poltehnica Bucharest, Other, Maste  |       |
| Reykjavic University, Bache  | lor _ |
| Reykjavic University, Maste  | ers   |
|  |       |
|  |       |
|  |       |
|  |       |
| If desired, please specify the year of study you are currently in or whether you have graduated your study programme.  |       |
| If desired, please specify the year of study you are currently in or whether you have graduated your study programme.  Year  |       |
| whether you have graduated your study programme.  Year   | 2     |
| whether you have graduated your study programme.  Year   | 2     |
| whether you have graduated your study programme.  Year   | 2 🗀   |
| whether you have graduated your study programme.  Year Year  | 2     |
| whether you have graduated your study programme.  Year  Year  Year  Year   | 2     |
| whether you have graduated your study programme.  Year  Year  Year  Year  Year  Graduat  No Answ  Have you experienced remote, online learning, since February 2020?   | 2     |
| whether you have graduated your study programme.  Year  Year  Year  Year  Graduat  No Answ   | 2     |
| whether you have graduated your study programme.  Year  Year  Year  Year  Year  Graduat  No Answ  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?   | 2     |
| whether you have graduated your study programme.  Year  Year  Year  Year  Graduat  No Answ  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?   | 2     |
| whether you have graduated your study programme.  Year  Year  Year  Year  Year  Graduat  No Answ  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 months for 12 months fo | 2     |
| whether you have graduated your study programme.  Year  Year  Year  Year  Graduat  No Answ  Have you experienced remote, online learning, since February 2020?  If so, would you please estimate the overall time spent?  1 to 6 month  1 to 2 year  2+ year   | 2     |

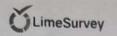


| Engineering, Programming)  Subject 1  Comment  PROGRAMMING, Si  Subject 2  Comment  Soft Tissue i MPLANTS ENGINEERING.  If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  1  2  3  4  5  Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5 scale.  |   | (Eg. Bioinformatics, Computational Chemistry, Soft Tissue Implants   |         |       |
|--|---|--|---------|-------|
| Comment  BIGINTO RMATICS  Subject 2  Comment  SOFT TISSUE I MPLANTS ENGINEERING.  If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   |  |         | _     |
| Comment  BIGINTO RMATICS  Subject 3  Comment  SOFT TISSUE I MPLANTS ENGINEERING.  If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   | Subjec   | [ ]     |       |
| Subject 2  Comment  Soft Tissue implants engineering.  Subject 3  Comment  Soft Tissue implants engineering.  If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  | 1 |  |         |       |
| Comment  Subject 3  Commen |   | PROGRAMMING, &i  |         |       |
| Comment  Subject 3  Commen |   | Subjec   | t 2     |       |
| Subject 3  Comment  SOFT TISSUE I MPLANTS ENGINEERING.  If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   |  |         | ì     |
| Comment  SOFTTISSUE I MPLANTS ENGINEERING.  If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  1 2 3 Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   |  |         |       |
| Comment  SOFTTISSUE I MPLANTS ENGINEERING.  If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   | BIOINTO FAMILIES   |         | _     |
| If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  1 2 3 Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   | Subject  | 13      | -     |
| If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  1 2 3 Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   | Comment  |         |       |
| If you could quickly estimate on a scale of 1 - 5, how confident are you at this moment in the skills and knowledge grasped thus far, regarding your academic experience?  1 2 3 Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   | SOFT TISSUE I MPLANTS ENGINEERING.   |         |       |
| Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5   |   | at this moment in the skills and knowledge grasped thus far,   |         |       |
| Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5   |   | at this moment in the skills and knowledge grasped thus far,   | 1       | Ę     |
| Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5   |   | at this moment in the skills and knowledge grasped thus far,   | 1 2     | C, C, |
| Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5   |   | at this moment in the skills and knowledge grasped thus far,   | 1 2 3   |       |
| scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5  |   | at this moment in the skills and knowledge grasped thus far,   | 1 2 3 4 |       |
| 1 2 3  |   | at this moment in the skills and knowledge grasped thus far,   | 4       |       |
| 2  |   | Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5 | 4       |       |
| 3  |   | Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5 | 4       |       |
|  |   | Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5 | 4       |       |
| The state of the s |   | Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5 | 4       |       |
|  |   | Similarly to the previous question, If you could quickly estimate on a scale of 1 - 5 how confident are you at this moment if you were to enter the job market in a domain related to your studies, where would you see yourself? If you have already done so, please answer how well do you feel you were prepared by your university, using the same 1 - 5 | 4       |       |

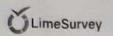




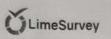
| A9.  | Overall, how would you describe the impact of remote and online learning on your educational / student experience, taking into account the teaching act alone? If you would like to expand on your answer, please do so, we appreciate every word!                      |  |  |  |  |  |  |
|------|---|--|--|--|--|--|--|
|      | Positive  |  |  |  |  |  |  |
|      | Negative 🔀  |  |  |  |  |  |  |
|      |   |  |  |  |  |  |  |
| A10. | Can you think of both positive and negative aspects you have  |  |  |  |  |  |  |
| A10. | encountered during your online learning experience? We would appreciate if you can describe up to three aspects for each of the two cases. It is important to notice both what went wrong and what went well throughout this experience. Describe using your own words. |  |  |  |  |  |  |
|      | (Eg. Positive: Accessibility - can access from anywhere, Comfortable - no travelling required; Eg. Negative: Less Social Interaction - less interaction with peers and professors, Less opportunities to get involved etc.)   |  |  |  |  |  |  |
|      | Positive A CCESSIBILITY  Negative LESS NIERACTION   |  |  |  |  |  |  |
| A11. | We can divide the academic activities of a student in theoretical courses, laboratory and experiments, examinations and graded projects (including group work).   |  |  |  |  |  |  |
|      | In which area do you feel online learning had a significant impact and how would you classify it (Positive / Negative / Neutral)?   |  |  |  |  |  |  |
|      | Positive Negative Neutral  Theoretical Courses  |  |  |  |  |  |  |
|      |   |  |  |  |  |  |  |
|      | Laboratory and Experiments  |  |  |  |  |  |  |
|      | Laboratory and Experiments   Examinations   |  |  |  |  |  |  |



|      | appreciation! Thank you!   |  |   |   |                    |     |
|------|--|--|---|---|--------------------|-----|
|      |  |  |   |   |                    |     |
| .13. | Can you quickly try to rate your feeling of co   |  |   |   |                    |     |
|      | your theoretical knowledge, practical abilitie<br>considering the subjects you manifested mos<br>consequence of hybrid learning)   |  |   |   | огк,               |     |
|      |  | 1  |   | 3   |                    | 5   |
|      | Theory   |  |   |   | X                  |     |
|      | Practical Abilities  |  |   |   | X                  |     |
|      |  |  |   |   |                    |     |
|      | Independent Work (working alone as if already employed)  |  |   |   | X                  |     |
| 14.  | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better.                                    | perience<br>apted b<br>able wa<br>lits tea<br>ribing | ed duri<br>by using<br>as in you<br>ching s                   | ing the p<br>g a hybi<br>our case<br>style? W | past<br>rid<br>the |     |
| 14.  | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str  | perience<br>apted b<br>able wa<br>lits tea<br>ribing | ed duri<br>by using<br>as in you<br>ching s                   | ing the p<br>g a hybi<br>our case<br>style? W | past<br>rid<br>the | 5   |
| 14.  | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str  | perience<br>apted b<br>able wa<br>lits tea<br>ribing | ed duri<br>by using<br>as in you<br>ching s<br>the ext<br>and | ing the p<br>g a hybi<br>our case<br>style? W | past<br>rid<br>the | 5   |
| 14.  | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better.                                    | perience<br>apted b<br>able wa<br>lits tea<br>ribing | ed duri<br>by using<br>as in you<br>ching s<br>the ext<br>and | ing the p<br>g a hybi<br>our case<br>style? W | past<br>rid<br>the | s — |
| 14.  | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better.  University Adapted Teaching Style | perience<br>apted b<br>able wa<br>lits tea<br>ribing | ed duri<br>by using<br>as in you<br>ching s<br>the ext<br>and | ing the p<br>g a hybi<br>our case<br>style? W | past<br>rid<br>the | 5   |



| A15. | How would you describe the level of interactivity during the online learning specifically? Try to include all cases - theoretical courses, practicals and groups projects. We provided some options, but If you can expand on your answer, please do so in the text box available for this question!   |   |
|------|--|---|
|      | Disappointing (got totally lost, on my own, no support)  |   |
|      | Insufficient (needed more)   |   |
|      | Sufficient (it was fine)   |   |
|      | Great (professors did a great job in spite of the situation)   | Ó |
| A16. | Following your experience with a hybrid learning system, what aspects would you consider a plus over conventional and traditional teaching methods? How would you consider improving current teaching methods? Do you have any tip or feedback to give? Please describe briefly, using your own words. Whether you have 5 seconds or 5 minutes to go through this question we read everything! |   |
|      |  |   |
|      |  |   |
| A17. | We are also very interested in how the student-professor relationship was changed by the hybrid learning system. How would you rate the opportunity to interact with your professors during online learning? Was it enough to allow you to become confident in the studied subjects? Try to place it on a scale of 1 - 5.  |   |
|      |  |   |
|      | 1 2 3 4  | 5 |
|      |  | 5 |



| A18. | During your years at the university how connected did you feel to the real world, work-related scenarios when studying or doing projects for university? Please rate your level of preparedness for entering the workforce, based on how you feel at this moment, or how prepared you feel you were when you entered the workforce if you have already.  |   |
|------|--|---|
|      |  |   |
|      |  | 1 |
|      |  | 2 |
|      |  | 3 |
|      |  | 4 |
|      |  | 5 |
| A19. | Do you feel your university, through its teaching style, curriculum and events, connects you (or connected you) well to the working world and its opportunities?   |   |
|      |  |   |
| A20. | Do you, overall, feel you could have been better prepared during your university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!  (Eg. Training on Mental Health Issues, Required more interactivity during courses, Needed more workforce-related knowledge)   |   |
| A20. | university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!  (Eg. Training on Mental Health Issues, Required more interactivity  |   |
| A20. | university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!  (Eg. Training on Mental Health Issues, Required more interactivity during courses, Needed more workforce-related knowledge)  MORE INTERACTIVITY DURING COURSES  We're almost done. Please provide some feedback regarding the following experiences (below) by answering with: Great / Sufficient / |   |
|      | university years (by your academic institution)? If so, please offer some relevant keywords. Try to find something that was missing or could have been improved, you will definitely help us help others!  (Eg. Training on Mental Health Issues, Required more interactivity during courses, Needed more workforce-related knowledge)  MORE INTERACTIVITY DURING COURSES  We're almost done. Please provide some feedback regarding the   |   |

| Lime | Survey   |                      |
|------|--|----------------------|
| 22.  | We're almost done. Please provide some feedback<br>following experiences (below) by answering with:<br>Insufficient / Disappointing. Laboratory and Expe | Great / Sufficient / |
|      | Access to Resources  | GREAT                |
|      | Level of Engagement  | GREAT                |
|      | Overall Feeling (Learning Experience)  | GREAT                |
| 123. | We're almost done. Please provide some feedback<br>following experiences (below) by answering with:<br>Insufficient / Disappointing.Examinations         |                      |
|      | Access to Resources  | GREAT                |
|      | Access to Resources  | OKUMI                |
|      | Level of Engagement  | BUTFICIEN T          |

Access to Resources

Level of Engagement

A25. Are you familiar with any of the following terms: Augmented Reality / Virtual Reality / Mixed Reality? These are the techniques we are going to use to bring improvement to the teaching methods within Biomedical Engineering.

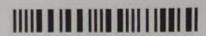
Overall Feeling (Learning Experience)

Yes K

GREAT

GREAT.

Thank you so much for getting involved with us!



Hi!

This survey serves a new project developed by University Politehnica Bucharest in partnership with Reykjavic University, called REALME, aiming to develop new teaching tools by making use of Mixed-Reality (Augmented and Virtual Reality) techniques in order to improve the manner in which courses related to BioMedical Engineering are being taught in our Universities.

Although this survey was developed initially for Biomedical students, we need input from students coming from all faculties! (Thank you!)

We would really appreciate your help and time invested in answering our questions! We will make sure it gets put to good use!

This is the student & alumni survey.

You can reach us at: sebmuraru@gmail.com

| A1. | Please specify | your age. |  |  |  |  |
|-----|----------------|-----------|--|--|--|--|
|     |                | 21        |  |  |  |  |
| A2. | Please specify | your sex. |  |  |  |  |

Section A: My first question group

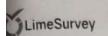
| Lime | Survey   |        |
|------|--|--------|
|      | Please specify the university you currently are or have been enrolled at. In the comments box, please write down the name of your faculty so we know your background better, even if you fit one of the offered answers perfectly! |        |
|      | University Politehnica Bucharest, FIM, Bachelor  | ×      |
|      | University Politehnica Bucharest, Other, Bachelors   |        |
|      | University Politehnica Bucharest, FIM, Masters   |        |
|      | University Poltehnica Bucharest, Other, Masters  |        |
|      | Reykjavic University, Bachelor   | $\Box$ |
|      | Reykjavic University, Masters  | 广      |
| 44   | If desired, please specify the year of study you are currently in or   |        |
| A4.  | If desired, please specify the year of study you are currently in or whether you have graduated your study programme.  |        |
| A4.  |  |        |
| 14.  | whether you have graduated your study programme.   |        |
| 44.  | whether you have graduated your study programme.  Year 1   |        |
| A4.  | whether you have graduated your study programme.  Year 1  Year 2   |        |
| A4.  | whether you have graduated your study programme.  Year 1  Year 2  Year 3   |        |
| A4.  | whether you have graduated your study programme.  Year 1  Year 2  Year 3  Year 4   |        |
| A4.  | whether you have graduated your study programme.  Year 1 Year 2 Year 3 Year 4 Graduated No Answer  Have you experienced remote, online learning, since February 2020?  |        |
|      | whether you have graduated your study programme.  Year 1 Year 2 Year 3 Year 4 Graduated No Answer  |        |

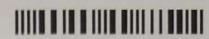
1 to 2 years

2+ years

No answer

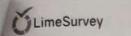
No

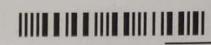




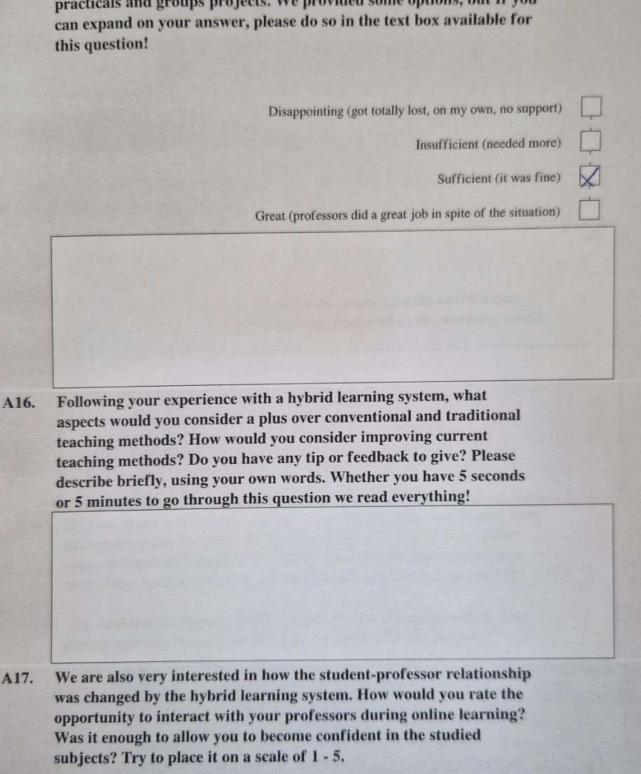
| Within Biomedical Engineering or otherwise your area of study, which fields would you pick to reflect areas of interest to you? Please pick three at most.   |  |  |  |
|--|--|--|--|
| (Eg. Bioinformatics, Computational Chemistry, Soft Tissue Implants<br>Engineering, Programming)  |  |  |  |
|  | Subject 1  |  |  |
| Comment  |  |  |  |
| Soft Tissue implants &   | majineerung  |  |  |
|  | Subject 2  |  |  |
| Comment  |  |  |  |
| Software of Medical Equi   | epment   |  |  |
|  | Subject 3  |  |  |
|  |  |  |  |
| Comment  |  |  |  |
| Hard Tissue Implants   | trageneering   |  |  |
| at this moment in the skills and knowledge gras<br>regarding your academic experience?   | 1  |  |  |
|  | 2 [  |  |  |
|  | 3 [  |  |  |
|  | 4 2  |  |  |
|  | 5 [  |  |  |
| Similarly to the previous question, If you could scale of 1 - 5 how confident are you at this more enter the job market in a domain related to you you see yourself? If you have already done so, p do you feel you were prepared by your university and the second s | nent if you were to<br>ir studies, where would<br>please answer how well |  |  |
| scale.   | 1 [  |  |  |
|  | 2  |  |  |
|  | 3 [  |  |  |
|  |  |  |  |
|  |  |  |  |
|  | 4  |  |  |

| <b>SLime</b> | Survey   |
|--------------|--|
| A9.          | Overall, how would you describe the impact of remote and online learning on your educational / student experience, taking into account the teaching act alone? If you would like to expand on your answer, please do so, we appreciate every word!   |
|              | Positive Negative Negative   |
|              | You, as a student, can get distract year year.   |
| A10.         | Can you think of both positive and negative aspects you have encountered during your online learning experience? We would appreciate if you can describe up to three aspects for each of the two cases. It is important to notice both what went wrong and what went well throughout this experience. Describe using your own words. |
|              | (Eg. Positive: Accessibility - can access from anywhere, Comfortable - no travelling required; Eg. Negative: Less Social Interaction - less interaction with peers and professors, Less opportunities to get involved etc.)  |
|              | Positive A C C E S I B I L I TY  Negative I E S S SOCIAL INTERACT  |
| A11.         | Negative LESS SOCIAL INTERACTIONS We can divide the academic activities of a student in theoretical courses, laboratory and experiments, examinations and graded projects (including group work).  |
|              | In which area do you feel online learning had a significant impact and how would you classify it (Positive / Negative / Neutral)?  |
|              | Positive Negative Neutral  Theoretical Courses   |
|              | Laboratory and Experiments   |
|              | Examinations   |
|              | Graded Projects (including groupwork)  |





| A12. | Related to the previous question, would you like to offer any feedback or expand your answer? Please do so here, every word gets our silent appreciation! Thank you!  |   |  |  |
|------|---|---|--|--|
|      | For the moment, no  |   |  |  |
| A13. | Can you quickly try to rate your feeling of confidence confidence in your theoretical knowledge, practical abilities and independent work, considering the subjects you manifested most interest in? (As a consequence of hybrid learning)  |   |  |  |
|      | Theory  | 1 2 3 4 5   |  |  |
|      | Practical Abilities   |   |  |  |
|      | Independent Work (working alone as if already employed)   |   |  |  |
| A14. | Given the uncertain situations many have exp<br>two years, to which some universities have ad<br>physical and online teaching system, how suit<br>manner in which your University has adapted<br>are specifically interested in the answers desc<br>values (1 and 5) so as to be able to identify str<br>vulnerabilities in the teaching system better. | apted by using a hybrid able was in your case the lits teaching style? We cribing the extreme |  |  |
|      |   | 1 2 3 4 5   |  |  |
|      | University Adapted Teaching Style   |   |  |  |
|      | Student - Professor Interactivity   |   |  |  |
|      |   |   |  |  |
|      | Access to professor for questions and help  |   |  |  |



Online Learning

Offline Learning

Level of Engagement INSUFFICI

INSUFFICIENT

A25. going to use to bring improvement to the teaching methods within Biomedical Engineering.

Thank you so much for getting involved with us!