Impact Study Participants External Funding by Source and Amount

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* **IGEM 16-001** Amit Jain BSU Computer Science at Boise State University - An Investment in Idaho's Future **~$19M**

|  |  |  |
| --- | --- | --- |
| Castle Peak Innovations, LLC | 3/17/17 | $26,492.00 |
| Defense Advanced Research Projects Agency/DOD | 4/7/17 | $100,000.00 |
| Department of the Army/DOD | 8/16/19 | $60,000.00 |
| Idaho Department of Commerce                                                                                                                           | 5/22/17 | $413,681.00 |
| Idaho Power Company                                                                                                                                    | 10/23/19 | $478,777.00 |
| Idaho Power Company                                                                                                                                    | 2/4/21 | $0.00 |
| Idaho Secretary of State | 10/23/18 | $15,000.00 |
| Idaho Secretary of State | 1/7/19 | $9,960.00 |
| Idaho Secretary of State | 1/28/20 | $7,000.00 |
| Idaho Secretary of State | 10/20/20 | $499,709.00 |
| Idaho Secretary of State | 5/25/21 | $121,334.00 |
| Idaho State Board of Education | 7/28/17 | $700,000.00 |
| Idaho State Board of Education | 9/19/17 | $59,300.00 |
| Idaho State Board of Education | 7/27/18 | $666,500.00 |
| Idaho State Board of Education | 8/2/19 | $666,500.00 |
| Idaho State Board of Education | 7/16/20 | $662,500.00 |
| Idaho State Board of Education | 6/3/21 | $17,500.00 |
| Idaho State Board of Education | 6/3/21 | $7,500.00 |
| Idaho State Board of Education | 6/3/21 | $20,000.00 |
| Idaho State Board of Education | 6/16/21 | $700,000.00 |
| Idaho State Board of Education | 6/22/21 | $7,500.00 |
| Idaho STEM Action Center - Office of the Governor | 4/25/18 | $98,530.00 |
| Idaho STEM Action Center - Office of the Governor | 3/19/20 | $25,000.00 |
| J.R. Simplot Company                                                                                                                                   | 9/8/16 | $23,263.00 |
| National Aeronautics & Space Administration | 6/28/17 | $25,000.00 |
| National Institutes of Health/DHHS | 6/20/17 | $17,162.96 |
| National Science Foundation | 8/3/16 | $497,120.94 |
| National Science Foundation | 8/25/16 | $119,544.47 |
| National Science Foundation | 9/7/16 | $397,199.00 |
| National Science Foundation | 9/19/16 | $174,964.65 |
| National Science Foundation | 11/1/16 | $259,993.92 |
| National Science Foundation | 11/17/16 | $54,075.11 |
| National Science Foundation | 4/11/17 | $88,091.00 |
| National Science Foundation | 5/2/18 | $97,701.79 |
| National Science Foundation | 6/29/18 | $1,199,604.00 |
| National Science Foundation | 7/24/18 | $374,999.74 |
| National Science Foundation | 8/9/18 | $53,453.72 |
| National Science Foundation | 9/7/18 | $499,963.44 |
| National Science Foundation | 9/26/18 | $699,999.57 |
| National Science Foundation | 11/6/18 | $99,873.00 |
| National Science Foundation | 4/15/19 | $19,940.00 |
| National Science Foundation | 4/25/19 | $174,490.00 |
| National Science Foundation | 6/25/19 | $375,000.00 |
| National Science Foundation | 6/27/19 | $92,651.38 |
| National Science Foundation | 1/8/20 | $364,500.00 |
| National Science Foundation | 2/11/20 | $76,652.00 |
| National Science Foundation | 3/19/20 | $293,879.00 |
| National Science Foundation | 3/25/20 | $316,345.00 |
| National Science Foundation | 4/6/20 | $16,000.00 |
| National Science Foundation | 5/15/20 | $22,636.00 |
| National Science Foundation | 6/30/20 | $375,000.37 |
| National Science Foundation | 7/23/20 | $49,875.38 |
| National Science Foundation | 8/10/20 | $96,783.57 |
| National Science Foundation | 9/18/20 | $100,000.00 |
| National Science Foundation | 3/31/21 | $393,906.00 |
| National Science Foundation | 4/14/21 | $16,000.00 |
| National Science Foundation | 5/14/21 | $399,999.00 |
| National Science Foundation | 5/20/21 | $138,861.88 |
| National Science Foundation | 5/25/21 | $91,651.09 |
| National Science Foundation | 6/14/21 | $28,988.00 |
| National Science Foundation | 6/15/21 | $95,350.26 |
| National Science Foundation | 6/23/21 | $1,999,918.00 |
| National Science Foundation | 9/24/21 | $153,882.00 |
| National Security Agency                                                                                                                               | 3/28/17 | $99,006.00 |
| National Security Agency                                                                                                                               | 4/6/18 | $83,990.00 |
| National Security Agency                                                                                                                               | 4/24/19 | $97,766.00 |
| National Security Agency                                                                                                                               | 5/3/19 | $96,760.00 |
| National Security Agency                                                                                                                               | 3/30/20 | $99,996.00 |
| National Security Agency                                                                                                                               | 6/30/20 | $100,000.00 |
| National Security Agency                                                                                                                               | 9/9/21 | $137,391.00 |
| New Jersey Governor's Council for Medical Research and Treatment of Autism | 11/8/16 | $40,483.45 |
| New Jersey Governor's Council for Medical Research and Treatment of Autism | 2/28/17 | $31,168.45 |
| Semiconductor Research Corporation                                                                                                                     | 8/3/18 | $124,999.31 |
| Semiconductor Research Corporation                                                                                                                     | 8/6/19 | $124,999.99 |
| Semiconductor Research Corporation                                                                                                                     | 9/11/20 | $125,000.40 |
| US Army Research Laboratory | 5/17/19 | $55,500.00 |
| US Army Research Laboratory | 6/21/19 | $40,926.00 |
| US Army Research Laboratory | 4/21/20 | $64,675.00 |
| US Army Research Laboratory | 12/21/20 | $39,138.55 |
| US Army Research Laboratory | 5/5/21 | $56,209.66 |
| US Department of Energy | 8/10/17 | $20,000.00 |
| US Department of Energy | 8/30/17 | $200,000.00 |
| US Department of Energy | 9/11/17 | $112,463.00 |
| US Department of Energy | 8/22/18 | $29,000.61 |
| US Department of Energy | 9/20/18 | $465,000.00 |
| US Department of Energy | 2/14/19 | $44,996.37 |
| US Department of Energy | 3/27/19 | $21,674.94 |
| US Department of Energy | 5/8/19 | $21,393.94 |
| US Department of Energy | 9/10/19 | $6,185.00 |
| US Department of Energy | 12/9/19 | $404,616.87 |
| US Department of Energy | 12/16/19 | $29,999.00 |
| US Department of Energy | 4/10/20 | $404,616.45 |
| US Department of Energy | 6/25/20 | $20,000.00 |
| US Department of Energy | 8/28/20 | $202,308.44 |
| US Department of Energy | 9/8/20 | $8,107.18 |
| US Department of Energy | 10/1/20 | $202,308.36 |
| US Department of Energy | 1/7/21 | $50,408.00 |
| US Department of Energy | 1/15/21 | $19,986.13 |
| US Department of Energy | 4/7/21 | $49,659.00 |
| US Department of Energy | 5/11/21 | $19,108.00 |
| US Department of Energy | 5/14/21 | $18,827.00 |
| US Department of Energy | 6/9/21 | $23,995.00 |
| US Department of Energy | 8/2/21 | $42,177.00 |
| Wholicity PBC | 10/2/17 | $122,059.67 |
| Total |  | $19,694,002.01 |

* **IGEM 16-002** Kurtis Cantley BSU Enhancing Capabilities in Nantechnology and Microfabrication at Boise State **~$12M**

|  |  |
| --- | --- |
| 2019 | Battelle Energy Alliance |
| 2019 | Battelle Energy Alliance |
| 2019 | Battelle Energy Alliance |
| 2019 | University of Idaho |
| 2019 | Battelle Energy Alliance |
| 2019 | NextFlex |
| 2020 | University of Idaho |
| 2020 | Battelle Energy Alliance |
| 2020 | University of Idaho |
| 2020 | American Semiconductor, Inc |
| 2020 | Idaho State Board of Education |
| 2020 | Knowm, Inc. |
| 2020 | US Department of Agriculture |
| 2020 | Battelle Energy Alliance |
| 2021 | National Science Foundation |
| 2021 | National Science Foundation |
| 2021 | Space Foundry, Inc (CA) |
| 2021 | Idaho State University |
| 2021 | Applied Nanotech, Inc. |
| 2021 | University of Idaho |
| 2021 | Battelle Energy Alliance |
| 2021 | Idaho Department of Commerce |
| 2021 | Office of Naval Research |
| 2022 | National Science Foundation |
| 2022 | National Science Foundation |
| 2022 | Idaho Department of Commerce |
| 2022 | National Institutes of Health |
| 2022 | Idaho Department of Commerce |
| 376,027.00  |
|  116,250.00  |
|  21,815.00  |
|  196,728.00  |
|  82,316.00  |
|  1,800,000.00  |
|  683,209.82  |
|  77,104.00  |
|  43,500.00  |
|  100,000.00  |
|  74,970.00  |
|  10,000.00  |
|  478,500.00  |
|  1,213,852.00  |
|  224,301.00  |
|  550,752.00  |
|  1,125,000.00  |
|  9,918.00  |
|  200,000.00  |
|  24,995.00  |
|  390,608.00  |
|  196,324.00  |
|  748,271.00  |
|  1,500,000.00  |
|  85,000.00  |
|  291,125.00  |
|  530,650.00  |
|  130,970.00  |

 Other support (graduate student fellowships) 1,060,218

 Total 12,342,403.82

List of other Support

**Student**  **Organization** **Amount**

Dale Brown Idaho Space Grant 17,500

Courtney Hollar NSF GRFP 138,000

Kiyo Fujimoto DOE NEUP 155,000

Naqsh Mansoor Fulbright Foundation 126,210

Katelyn Wada DOE NEUP 155,000

Cadre Francis NSF 88,000

Mone’t Albers NSF 88,000

Ariel Weltner DOE NEUP 155,000

* **IGEM 16-003** Eric Burgette ISU Wide Band Gap and Harsh Environment Semiconductor RD&D Capibility
	+ *No data as there was no response from this PI*
* **IGEM 17-001** Larry Stauffer UI Security Management of Cyber Physical Control Systems **$5,549,500**
	+ Schweitzer Engineering Labs = $2,785,000
	+ Avista = $22,500
	+ Murdoch Foundation = $287,000
	+ Department of Energy = $825,000
	+ National Science Foundation = $1,330,000
	+ ABE = $300,000 (ABB is a large multinational corporation in the energy sector. They compete with SEL in protective relays but they are much broader and much larger than SEL. The projects I mention below are not with their protection group and are with their power electronics group. <https://new.abb.com/us>
* **IGEM 19-001** Karen Humes UI Sustaining the Competitiveness of the Food Industry in Southern Idaho: Integrated Water, Energy, and Waste Management **$10,158,457M**
	+ USDA Agriculture and Food Research Initiative (AFRI) Sustainable Agriculture Systems (SAS) program - $10,000,000
		- Co-I Coats’ portion = $482,000
	+ USGS, through Idaho Water Resources Research Institute 104b program = $118,457
	+ Co-I from our IGEM project: Jae Ryu = ~ $40,000
* **IGEM 19-002** Will Hughes BSU Nucleic Acid Memory **$1,549,995**
	+ National Science Foundation = $1,125,000
	+ Semiconductor Research Corporation = $375,000
	+ EAGER = $49,995
* **IGEM 20-001** Mustafa Mashal ISU A Disaster Response Complex for Emergency Responders in Idaho **$300,000**
	+ Battelle Energy Alliance = $64,000
	+ ISU = $236,000
* **IGEM 20 -002** Ken Baker UI Cellulosic 3D Printing of Modular Building Assemblies **$4M**
	+ BEWS Foundation = $22,000
	+ NSF grant = $4,000,000